Capital District Transportation Committee

FHWA/FTA Certification Review
of the Transportation Planning Process
November 2008

Capital District Transportation Committee Certification Review

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CDTC's Planning Perspective

"The MPO planning perspective must be not only broadened (in scope) but also lengthened (in planning horizon). The range of nontraditional subjects that strategies and objectives must cover includes CO_2 emissions; environmental justice and social equity; pricing; public health; environmental sustainability; intercity freight and passenger movement; new transportation technologies and other issues."

Colloquy on the Coming Transformation of Travel, June 2006

Preface

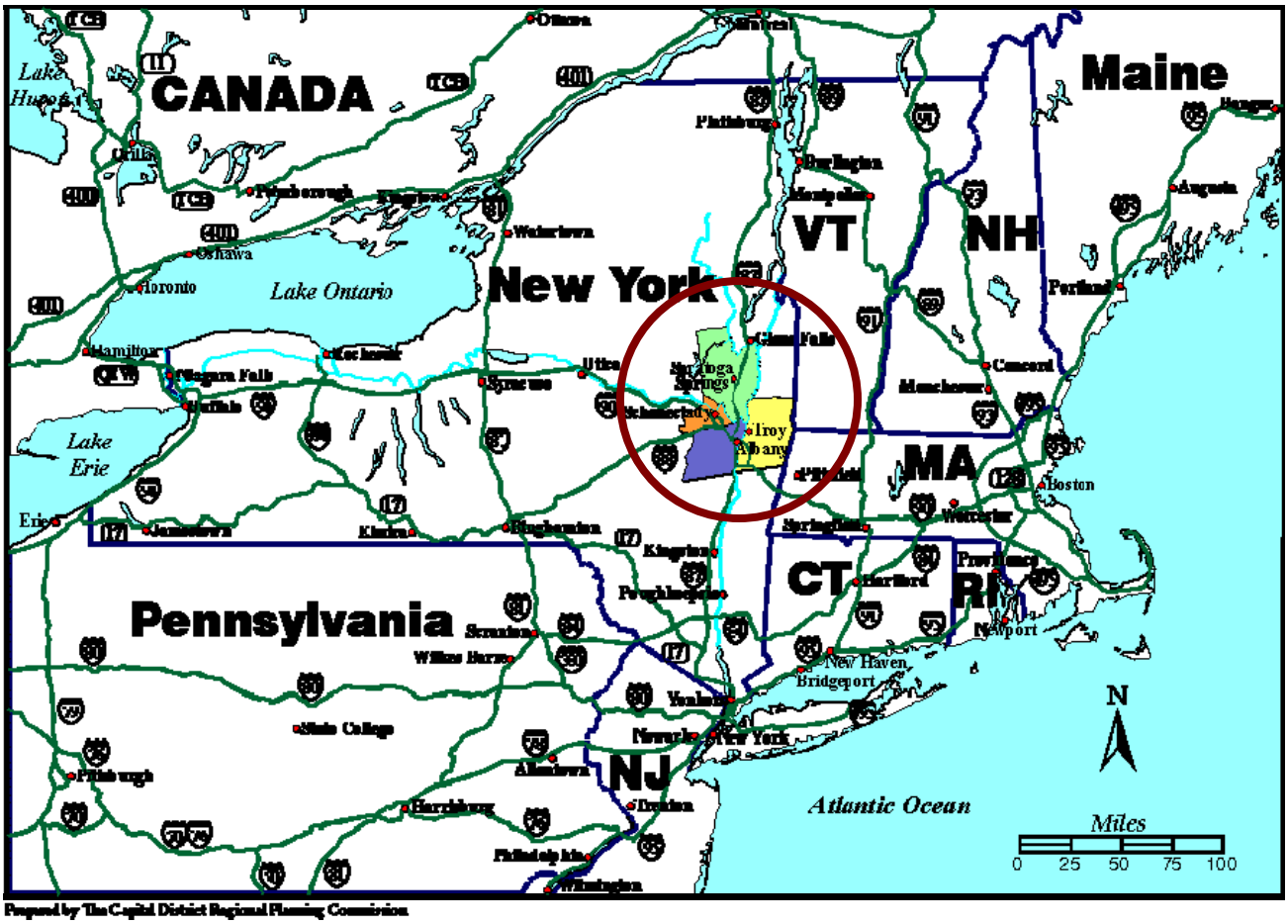
When reading about a transportation planning process and the resultant transportation plans, we often encounter very lofty goals and principles that the organization has adopted for the purpose of guiding decision making in the region. These are goals and principles everyone can agree upon in order to achieve desirable outcomes at the Village, Town, County, MPO and State levels. Unfortunately, these goals are often unattained because the principles are mostly just umbrella-type words that are never really opened with any determination. The goals are not *unattainable*, just *unattained*. The result of this reoccurring experience is that we have the tendency to gloss over the lofty words as being window dressing - well-intentioned but rather unrealistic.

The planning process in the Capital District demonstrates that that this is not the necessary outcome. In "higher terms", CDTC does show you its faith by showing you its works. CDTC has purposefully avoided the pitfalls of the historic planning approach and its inherent ideas of centralization: the assumption of an enlightened technocracy – that planners and engineers are capable of designing the "best" regional plan for (not with) stakeholders. And - the assumption that a regional plan can be developed at the regional level without considering local rule and private market realities.[1] The CDTC process engages regional economic entities, environmental groups, business CEOs and university presidents, chambers of commerce, neighborhood associations, and regional empowerment groups. Regional vision is carried out at the local level to a degree that is exemplary.

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are required to review, evaluate, and certify the metropolitan transportation planning process in each Transportation Management Area (urbanized area of 200,000 population or more) at least every four years. The certification review is to assure that the planning process is addressing the major issues facing the area, and that the planning process is being conducted in accordance with federal law and statutes.

CDTC does what the law requires – what MPOs are meant to do in federal law; Congress took the MPO process seriously, but in most States, it is not taken so seriously. This report documents the FHWA and FTA 2008 certification review of the CDTC.

CAPITAL DISTRICT LOCATION MAP



Prepared by The Capital District Regional Planning Commission

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The Capital District Transportation Committee's transportation planning process is an exemplary endeavor and is hereby fully certified. The CDTC will continue to be challenged in the coming years by the uncertainty of private development in the area, the short-term insufficiency of funding of transportation at the Federal and State levels, and the impacts thereof upon the transportation system.

Background

The Federal Highway Administration and the Federal Transit Administration reviewed the CDTC transportation planning process in accordance with the requirement of *23 CFR §450.334* that all urbanized areas over 200,000 be reviewed at least every four years to assure that the process is in accordance with federal regulations.

Noteworthy Practices

Good examples of planning practices abound the CDTC process. We specifically note the trust among the member agencies, the *Linkage* program, CDTC's investment principles, *New Vision 2030 Plan* process and philosophy, CDTC staff's involvement in the Albany Airport GEIS mitigation activity, the Congestion Management Process, the Title VI/EJ efforts, the Transportation Improvement Program (TIP) development process, the public involvement practices, and the continuing education and involvement of local groups in the *New Vision* principles and regional vision of a Quality Region. We specifically commend the work of CDTC Staff for its professional capabilities.

Recommendations and Needed Actions

This report contains numerous commendations for existing practice, several recommendations for consideration in furthering program excellence, and corrective actions. The latter include the need for an update of the Prospectus with specific provisions for cooperatively developing and sharing information related to financial plans in the TIP development process, the development of a Memorandum of Understanding with the Glens Falls MPO regarding coordination and analysis, and the initiation of discussions about CDTC's appropriate role in security planning.

Challenges

We foresee a challenging workload facing the Central Staff and member agency staffs, specifically regarding the further rollout the *New Visions 2030* Plan, the budding impacts of the high-tech industry development, and the potential for enhanced MPO involvement in security planning. CDTC has demonstrated its ability to maintain a professional and visionary process. It has adopted well thought out investment principles and – most remarkably among MPOs – has held to them.

Table 1. Key Planning Products						
	Who Develops?	**Who Approves?**	**Time Horizon**	**Content**	**Update requirements**	**CDTC Status**
UPWP	MPO	MPO	1-2 years	Planning Studies & Tasks	Annually	*2008-10 UPWP* approved 3/6/2008
Plan	MPO	MPO	20 years	Future Goals, Strategies & Projects	Every 4 years in air quality nonattainment areas	*New Visions 2030* approved 10/4/2007[a]
TIP	MPO	MPO & Governor	4 years	Transportation Investments	Every 4 years	*2007-12 TIP approved* 7/12/2007[b]
Congestion Management Process	MPO	MPO	---	Performance measures and strategies	Periodically	*Congestion Management Process* approved 6/7/2007
Public Participation Plan	MPO	MPO	---	Process to provide reasonable opportunities to be involved in planning process.	Periodically	*Public Participation Plan* approved 6/72007
Statewide Transportation Improvement Plan	State DOT	US DOT	4 years	Transportation Investments	Every 4 years	Approved by USDOT 12/10/2007

a. USDOT approved the *New Vision 2030* Plan's conformity determination on April 9, 2008

b. USDOT approved the *2007-2012* TIP's conformity determination on October 15, 2007

FHWA/FTA
Certification review

Introduction

"In TMAs, the FHWA and the FTA jointly shall review and evaluate the transportation planning process for each TMA no less than once every four years to determine if the process meets the requirements of applicable provisions of Federal law and this subpart." 23 CFR § 450.334 (b)

Every urban area in the United States of more than 50,000 persons, as designated by the Bureau of the Census, must have a designated Metropolitan Planning Organization (MPO) in order to qualify for Federal highway and transit funds. When an MPO approves a TIP, Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must jointly find that the TIP is consistent with the metropolitan transportation plan produced by the continuing and comprehensive transportation process carried on cooperatively by the MPO(s), the State(s), and the public transportation operator(s). This finding is based on the MPOs "self-certification" that it is so based, together with an explanation as to what the MPO so concluded.[2] CDTC approved its most recent self-certification on June 7, 2007.

Any metropolitan area with an urbanized population of 200,000 or more persons is classified as a **Transportation Management Area (TMA)** and subject to additional Federal requirements and scrutiny. One of these additional requirements (*23 CFR 450.334*) is for the FHWA and FTA to specifically review and evaluate the MPO's transportation planning process at least every four years, and to certify that the MPO is (or is not) meeting said regulations.

According to the 2000 Census, the Albany, New York urbanized area has a population of 558,947; therefore, this area continues to be classified as a TMA by the Secretary of Transportation.[3] The Capital District Transportation Committee (CDTC) is the designated MPO for the Albany urbanized area and is therefore subject to these certification reviews.

The Federal Certification Review

The intent of the statutory and regulatory requirements of 23 CFR 450 is assure that an urbanized area is developing a transportation system that serves the mobility interests of people and freight through a multifaceted metropolitan planning process. The certification review itself is to assure that the MPO is addressing the major issues facing the area, and

that the planning process is being conducted in accordance with:

1) 23 U.S.C. 134, 49 U.S.C. 5303 and 23 CFR 450;
2) In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d–1) and 49 CFR part 21;
4) 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5) Section 1101(b) of the SAFETEA– LU (Pub. L. 109–59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6) 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
7) The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) and 49 CFR parts 27, 37, and 38;
8) The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9) Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
10) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

The Federal certification process evaluates an MPO's process, identifies strengths and weaknesses (as appropriate), and makes recommendations for improvement. The recommendations that result from the federal review hopefully will improve the effectiveness and efficiency of the planning process. There are also broader benefits to the review. The Federal reviewers try to identify good or innovative practices to share with other states and metropolitan planning organizations. Following the review and evaluation, FHWA and FTA can take one of four certification actions:

- Full certification of the transportation planning process - which allows federally funded programs and projects of any type to be approved in the TIP over the next three years in accordance with the continuing planning process.
- Certification subject to specified corrective actions being taken - which allows all projects to move forward in the process while corrective actions are taken; this option may take the form of a temporary certification for a certain number of months rather than the full four years.
- Limited certification - which allows only certain specified categories of program and project funding to move forward while corrective actions are being taken.
- Certification withheld – the Secretary may withhold up to 20 percent of the funds attributable to the metropolitan planning area of the MPO for projects funded under title 23 U.S.C. and title 49 U.S.C. Chapter 53 in addition to corrective actions and funding restrictions.

The previous certification review and site visit to CDTC was conducted in March 2004 and a final report released in June 2004. The FHWA and FTA fully certified CDTC as meeting the federal transportation planning requirements, with ten examples of "best practice" being cited. Several recommendations for consideration were also made.[4]

2008 Certification Review

The 2008 certification review officially began in March 2008 with correspondence to

CDTC concerning the upcoming review and identifying the primary topics of the review. The review dates were coordinated with Mr. John Poorman, CDTC Central Staff director. The New York State Department of Transportation (NYSDOT) and the Capital District Transportation Authority (CDTA) also received copies of the correspondence. The CDTC Central Staff notified the CDTC member agencies and the public.

Before the on-site visit, the FHWA and FTA conducted an internal desk audit of CDTC material, including the CDTC 2007 self-certification statement, the *2008-10 Unified Planning Work Program*, the *2007-12 Transportation Improvement Program* and the *New Visions 2030* transportation plan.

Site Visit

On April 15-16, 2008 the Federal Review Team conducted the site visit. The Federal Team consisted of Donald Burns (FTA-Region Two Office), and Joseph Rich and Maria Chau (FHWA-NY Division Office).

The on-site review was held at the CDTC offices at One Park Place in Albany (the agenda is Appendix A). The discussions were primarily with Mr. John Poorman (CDTC staff director), individual members of the staff, and representatives of NYSDOT's Main Office and Region One Office. All CDTC member agencies were welcome to attend; representatives from the Capital District Transportation Authority and the Capital District Regional Planning Commission did participate as they thought appropriate. A draft copy of this report was shared with all participants in May and comments on the technical statements solicited*

The latest Federal legislation is *SAFETEA-LU (The Safe, Accountable, Flexible, Efficient, Transportation Act: A Legacy for Users*). SAFETEA-LU introduced some additional requirements on the metropolitan planning process in 2005, including the consideration of Transportation Systems Security/Emergency Preparedness, development of a Public Participation Plan, increased use of visualization techniques, coordination with additional agencies, and the electronic publication of Plans and TIPs.

SAFETEA-LU also requires that the statewide transportation planning process and the metropolitan planning process shall provide for consideration of projects and strategies that will protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.

Although SAFETEA-LU increased standards, CDTC was already in compliance with most of the regulations and it has made the appropriate modifications to its process to address all requirements. .

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* The draft final report indicating CDTC recertification was available in July 2008; however, because of a medical situation with one of the authors, the finalized version was delayed until October 2008.

Excellence

Conclusions and Recommendations

"We again find that the CDTC planning process is exemplary. CDTC members and staff are commended for their cooperative approach to addressing regional needs. CDTC has many noteworthy – indeed visionary - practices, which are highlighted in the Report. We hope to share these practices with our other offices nationwide." FHWA/FTA 2004 Certification letter

Similar to our 2004 conclusions above, we again find that the CDTC transportation planning process is exemplary and generally in compliance with the requirements of Section 134 of Title 23, Section 8 of the Federal Transit Act, Sections 174 and 176(c) and (d) of the Clean Air Act, as well as the other sections of law mentioned in 23 CFR §450.334 (a). We again congratulate the MPO for the cooperative nature of its process, the innovative approaches to fostering land use and transportation coordination at both the local and regional level, and the excellent technical capabilities that the central staff and member agencies have developed.

CDTC "Best Practice" Activities

As part of our certification reviews, we often highlight an MPO's noteworthy activities in order to improve the MPO process nationwide. It is unusual that an MPO would have as many as three such activities highlighted – our last review highlighted ten for CDTC. This time, we are highlighting twelve activities of the CDTC as "Best Practices" – and probably could have cited additional ones, which illustrates the truly exemplary character of their process. We believe that the following areas are noteworthy practices from which other MPOS can benefit:

- The *New Visions* plan development process (page 31)
- The *Community and Transportation Linkage Program* (page 27)
- Holistic approach to regional planning and development (page 21)
- The Albany Airport GEIS mitigation activity (page 29)
- CDTC's public involvement practices (page 46)
- Transportation Improvement Program development process (page 51)
- Reassessing the reasons why people travel
- Risk Assessment, life cycle costs and tradeoff analysis approach to capital investment
- Congestion Management Process (page 60)
- Lead role in coordinating Clean Communities effort (page 113)
- Big Ticket Initiatives (page 39)
- CDTC's Title VI/EJ efforts (page 99)

The CDTC process demonstrates the value of gaining trust among the members. We specifically commend Mr. John Poorman, CDTC Central Staff Director, for his leadership.

The area faces significant changes due to many factors, such as the potential development of the Luther Forest Technology Campus, the level of transportation funding in both the Federal and the State sources versus rising costs of construction and infrastructure repair, the development of I-87 as a Trade Corridor, and the potential for an expanded CDTC role in security planning. We fully expect that the CDTC will continue fulfilling its crucial role in shaping the area's transportation system of the 21st Century for the economic benefit of the region and the quality of life of the entire Capital Region.

During the 2004 certification review, FHWA and FTA made several recommendations for CDTC's consideration in enhancing its already noteworthy planning process. The following is the status of those recommendations:

Table 2: Status of 2004 FHWA/FTA Recommendations

Recommendation	Status	
Organization and Structure CDTC should update its Prospectus as soon as future NYSDOT interaction with the MPO is better known and the new Federal legislation is available.	NYSDOT's *Transformation* process has recently ended. CDTC intends to update its Prospectus in the coming year.	√
UPWP & Staffing The CDTC is encouraged to continue its pursuit of using the 2-year UPWP format.	CDTC adopted a two-year UPWP in March 2006	√
Transportation Improvement Program CDTC should evaluate what impact the continued use of federal funding on routine infrastructure projects will have on the build-out of the RTP.	These recommendations were directed at NYSDOT's initiatives in recent years. Long-range fiscal needs and implications of current funding scenarios have been examined in CDTC's Transportation Finance Task Force	√
CDTC should revisit the issue of how to evaluate TIP amendments that switch 100% non-federal projects to federally funded projects.	Done	√
Long Range Transportation Plan CDTC should continue with its interim update of the Plan to a 2025 horizon year, with the anticipated major update (*2030 New Visions).*	Completed	√
CDTC should evaluate how the Thruway's *Albany Corridor Study* can best be folded into the overall CDTC philosophy of infrastructure and capacity investments.	CDTC has asserted in the TIP that federal approval of major actions by the Thruway in the Albany Corridor cannot be taken without those actions being consistent with CDTC's regional plan.	√
Public Participation CDTC should reevaluate the usefulness of publishing a newsletter.	Newsletter *In Motion* is now published.	√
The CDTC mailing list should be periodically revisited and refreshed as needed.	This is ongoing.	√
CDTC should consider revamping its website to a more visual format. In doing this, two options on the website's opening screen should be considered – the visually oriented presentation and a text only version.	Web site has had significant improvements. CDTC strives to maintain consistency with federal guidance on web site accessibility.	√

2008 Needed Actions & Federal Recommendations

We offer a number of recommendations on elements of the CDTC planning process in a partnering effort to further improve the process and identify several corrective actions that are needed to bring CDTC into compliance with the 2007 *Statewide Transportation Planning/Metropolitan Transportation Planning* regulations.

NEEDED CORRECTIVE ACTIONS

Transportation Improvement Program

- The State, the MPO(s) and the public transportation operators must cooperatively develop a TIP financial budget as the next TIP is being developed.

Prospectus

- As CDTC updates its Prospectus, it must include specific provisions for cooperatively developing and sharing information related to the development of financial plans that support the metropolitan transportation plan. This must be accomplished by June 1, 2009.

Air Quality Agreements

- Within six months after the NYSDEC develops a specific emissions budget in the SIP for the Capital District nonattainment area, a Memorandum of Understanding must be developed that satisfies the 23 CFR 450.314 (b). This is a written agreement among the NYSDOT, NYSDEC, affected local agencies, and the CDTC describing the process for cooperative planning and analysis of all projects outside the MPA within the nonattainment or maintenance area. The agreement must also indicate how the total transportation-related emissions for the nonattainment or maintenance area, including areas outside the MPA, will be treated for determining conformity. The MOU needs to also contain information on how the CDTC and Adirondack/Glens Falls Transportation Council (AGFTC) coordinate the conformity process in the Town of Moreau.

RECOMMENDATIONS

Organizational Structure

- CDTC should update its Prospectus to reflect current working relationships and federal regulations.

Transportation Improvement Program

- CDTC should revaluate its *Guideline for TIP Changes* in light of the new definitions of Amendment and Administrative Adjustment. Also, the Guideline should address a "toll credit" action, whereby the State wants to change the Federal share on a project to 100%.

Public Involvement

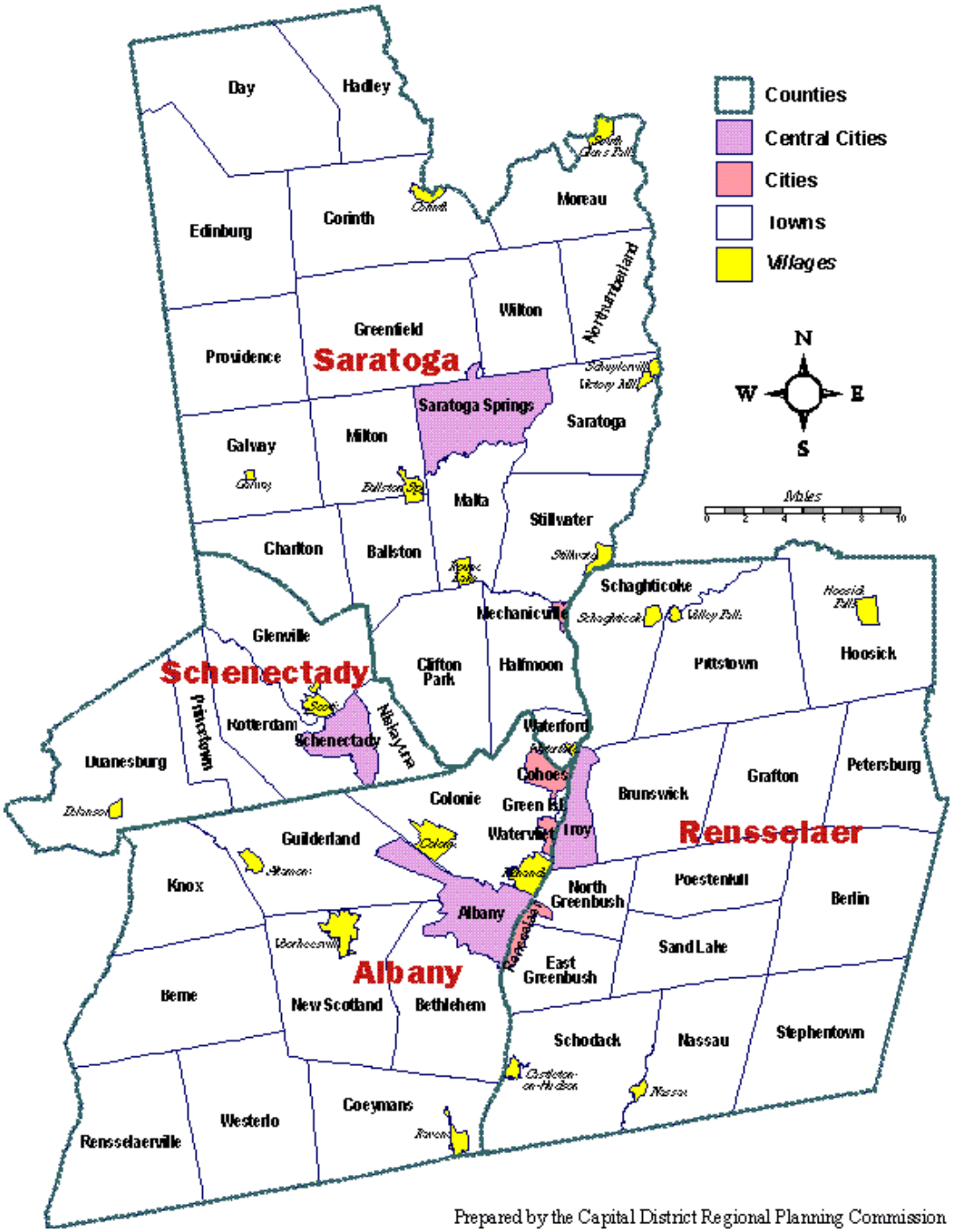
- CDTC should work to clarify the relationship between TIP and the STIP information on their website.

Security Planning

- CDTC should open a discussion with its members on it appropriate role in furthering the coordination and cooperation among member agencies on the security issue.
- CDTC should consider obtaining agreement on how decisions involving the use of emergency relief funding would be made.

The Federal review team wishes to express our appreciation to CDTC staff for its hospitality during the onsite review.

CAPITAL DISTRICT MINOR CIVIL DIVISIONS



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Organizational Structure

"23 U.S.C. and Section 8 of the Federal Transit Act ... require that a Metropolitan Planning Organization (MPO) be designated for each urbanized area and that the metropolitan area has a continuing, cooperative and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals." 23 CFR Section 450.300

The *Capital District Transportation Committee (CDTC) Policy Committee* is the designated MPO for the "Albany, New York urbanized area".[5] The CDTC study area includes all of Albany, Rensselaer, Schenectady and Saratoga Counties (except for the Town of Moreau[6]); this represents a total land area over of 2,100 sq. mi. The total 2000 population in the study area is 794,293, which includes the urbanized population of the Albany urbanized area (558,947) and the Saratoga Springs urbanized area (50,071). CDTC maintains a Central Staff of 12 full time individuals; the 2008-2009 central staff budget is approximately $1.8 million.

The Federal Highway Act of 1962 created the federal mandate that regional agencies conduct "continuing, comprehensive and coordinated" (3-C) transportation planning.[7] As a result, the *Capital District Transportation Study* (CDTS) was set up in 1965 through agreements involving New York State, the four Capital District counties and the 78 municipalities in those counties. Due to the relative weakness of the 1962 Act in guaranteeing local authority over transportation decisions, the 1973 Federal-Aid Highway Act subsequently called for the establishment of more influential planning bodies called "metropolitan planning organizations" in all urbanized areas over 50,000 in population. On January 24, 1974, in accordance with section 112 of the 1973 Act, Governor Wilson designated the *CDTS Policy Committee* as the MPO for the Capital District. Shortly thereafter, the official name of the MPO was changed to the *Capital District Transportation Committee*.

According to 2000 Census urbanized area population, CDTC is the fourth-largest MPO in New York State. The Capital Region – so named because Albany is the Capital of New York State - is growing in population, most rapidly in Saratoga County. In fact, based on the 2000 Census, the Saratoga Springs is now recognized as a separate urbanized area by the Census. This designation allowed the possibility of forming a separate MPO for Saratoga Springs if the local officials so desired. After consultation with CDTC members, the local officials in Saratoga Springs chose to remain under the planning umbrella of CDTC.

CDTC's Planning Area Boundaries

CDTC's Metropolitan Planning Area Boundary (MPA) is the primary focus of CDTC's study efforts. The MAB is one of four boundaries with which the MPO must deal in the transportation planning process.

Albany Tulip Festival, Commemoration of Albany's Dutch Heritage

- Census Urbanized Area (UZA) is the smallest of the boundaries is the UZA. After each decennial Census, the Bureau of the Census establishes a Census Boundary for each urbanized area and provides maps showing what communities (or parts thereof) comprise the urbanized population. The UZA sets the urbanized area's population for apportionment of FHWA's STP-Large Urban and FTA's Section 5307 funds. After the UZA is available, the MPO may adjust this boundary outwards for its own purposes.

- FHWA Urban Area Boundary (UAB) is the next boundary. Using the Census UZA as a starting point, the MPO may smooth and adjust the UZA outwards to better reflect an area's transportation needs. Adjustments are routinely necessary because the Census' UZA boundaries solely reflect population density and thus do not usually include some significant facilities (e.g., airports or parks). For an MPO to adjust the UZA boundary outward, there must be agreement among "the responsible State and local officials in cooperation with each other."[8] This adjusted boundary (UAB) serves many purposes. It is the official "urban/rural" boundary for FHWA purposes; it is important for highway functional classification, roadway design standards, FHWA eligibility for improvements, Emergency Relief funding eligibility, and outdoor advertising control[9]. The adjusted boundary is subject to approval by the Secretary of Transportation.

Following the release of the 2000 Census UZA, CDTC reviewed and made appropriate adjustments thereto to form its current UAB. The NYSDOT submitted the revised UAB to FHWA and FTA on December 29, 2003, and the boundary was subsequently approved on January 26, 2004. A separate UAB was also approved for Saratoga Springs.

- Metropolitan Planning Area Boundary (MPA) – this is the geographical area in which the MPO's transportation planning process is carried out. The MPA is to encompass the UAB plus any area that the MPO anticipates to become urbanized in 20 years.[10] The MPO and the Governor must agree on the MPA.[11] In December 2003, the CDTC reaffirmed that its planning area boundary (MPA) remained unchanged - all of Albany, Rensselaer, Schenectady and Saratoga Counties, excluding the Town of Moreau in Saratoga County which is in the Glens Falls urbanized area.

- Air Quality Nonattainment/ Maintenance Area Boundary - In air quality nonattainment/ maintenance areas, the MPA (above) must include the entire nonattainment area – unless the Governor and the MPO agree otherwise.[12] In the Capital District, the Governor and the MPO did agree otherwise. When it classified the Capital District region as being in nonattainment for the 1-hour ozone standard in 1992, EPA included six counties in the Capital District then in the Albany Metropolitan Statistical Area - the four urban counties (Albany, Rensselaer, Saratoga and Schenectady) plus two rural counties (Montgomery and Greene). Subsequently, there was an extensive discussion whether CDTC's four-county planning boundary should be expanded to include all six counties. Since the two rural counties were outside the area likely to become urbanized with the CDTC's 20-year forecast, CDTC and the Governor decided to keep the existing planning boundary (the four urban counties) and let NYSDOT handle the two rural nonattainment counties for conformity purposes. After the 2000 Census, Schoharie County was also added to the Albany Metropolitan Statistical Area and thus also must be included in air quality conformity analyses, but the CDTC Planning Area Boundary still is limited to the four counties. Today, the CDTC air quality conformity analysis includes emissions form the four urban counties

(done by CDTC) plus emissions from the three rural counties (done by NYSDOT).

CDTC Structure and Membership

The CDTC has used the term "**Policy Board**" rather than "Policy Committee" for a number of years to reduce the amount of confusion over the term "committee". The Policy Board is composed of the principal elective officials of general purpose local government, as well as the principal officials of regional and State transportation agencies (Table 3). The 26-member Policy Board operates by consensus, emphasizing mutual agreement. All CDTC voting members have an equal vote (i.e., virtual veto) over any major decision affecting them. The majority of Policy Board members are non-State, as there are only two State voting members: the NYSDOT and the NYS Thruway Authority. The Policy Board members work very well with each other and with the other municipalities, community groups, interest groups and the central staff. CDTC's cooperative working relationship is unparalleled among New York MPOs and reflects the true intent of the 3C planning process.

Table 3. Capital District Transportation Committee

Entity	Representation
Counties (8)	Albany County Executive; Albany County Legislature; Rensselaer County Executive; Rensselaer County Legislature (chair); Schenectady County Board of Representatives (chair); Member-at-large named by Schenectady County Board of Representatives; Saratoga County Board of Supervisors; Member-at-large named by Saratoga County Board of Supervisors
Cities and Towns (9)	City of Albany (Mayor); City of Cohoes (Mayor); City of Troy (Mayor); City of Schenectady (Mayor); City of Mechanicville (Mayor); City of Saratoga Springs (Mayor); City of Watervliet (Mayor); City of Rensselaer (Mayor); Town of Colonie
Other Local (2)	At-large town representative(s) and/or At-large village representative(s). These rotating positions are chosen annually.
Regional Bodies (4)	Capital District Transportation Authority; Capital District Regional Planning Commission; Albany Port District Commission; Albany County Airport Authority
State Agencies (2)	NYS Department of Transportation NYS Thruway Authority
Federal Agencies (2)	Federal Highway Administration (NY Division); Federal Transit Administration (Region 2) - *Federal agencies are non-voting members* --

CDTC membership is not static. Although transportation system mature over the years, many MPO policy boards chose not to expand their membership to address new major modes of transportation within the area. The CDTC, however, has expanded its voting membership over the years to include several new intermodal transportation providers: the New York Thruway Authority, the Albany Port District Commission and the Albany County Airport Authority. CDTC also adopted the position that any municipality over 50,000 population should have a permanent seat on the Policy Committee; as a result, the Town of Colonie was added as a voting member.[13] Thus, the Policy Board currently has 26 members.

Voting is by consensus. Consensus is defined as "unanimity of affected parties", and the Chairman may judge the extent to which members are affected by proposed Board actions and declare whether or not a consensus exists. All affected CDTC voting members have an equal vote (i.e., virtual veto) over any major decision affecting them.

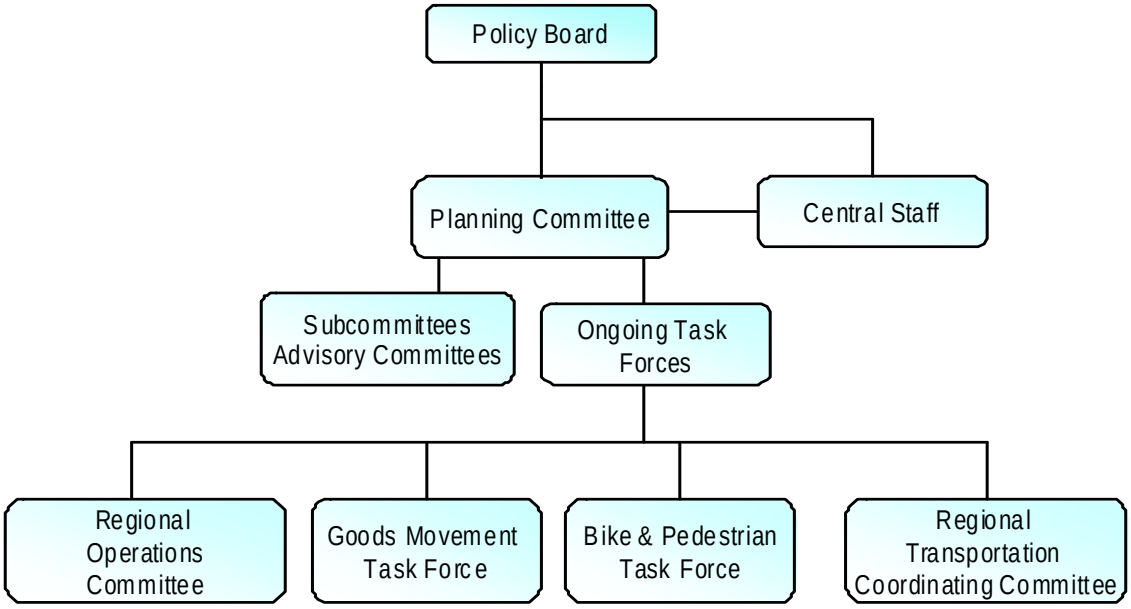
Unanimous consent is not a federal requirement. This arrangement was consciously encouraged by NYSDOT when the MPOs were first being formed in the 1970s. At that time, the national perception was that the State DOTs controlled all decisions since they controlled almost all of the Federal transportation funds.

NYSDOT laudably chose to ameliorate this perception by urging MPOs to adopt a consensus voting structure, whereby even the smallest member had a virtual veto on the MPO policy boards. Over the years, two of the thirteen NY MPOs have switched to a majority vote (Utica and Rochester), and that arrangement works well – if a quorum shows up at the meeting. CDTC also evaluated and rejected the concept of weighted voting, believing that it might be counterproductive to a cooperative process wherein all parties feel free to fully disclose their plans/ programs without the fear of being outvoted for purely parochial interests. The Policy Board meets four times a year.

Under the Policy Board is the **CDTC Planning Committee**, which is responsible for developing the UPWP and the TIP. Like the Policy Board, the Planning Committee includes wide representation from the State, Regional, City and local municipalities - usually represented by the technical counterparts of the Policy Board members.

Besides the Planning Committee, CDTC has several subcommittees (e.g., Administrative and Financial Standing Subcommittee) and numerous working groups/task forces (e.g., Bicycle/ Pedestrian Task Force, Goods Movement Task Force). Additional work groups are formed for special studies, such as the *New Visions 2030 Plan*. Planning Committee meetings are held monthly. CDTC recently expanded the at-large representation on the Planning Committee by extending continuing member or alternate member status to any municipality with a professional planning staff.

Figure 1: CDTC Committee Structure



Agreements and Contracts

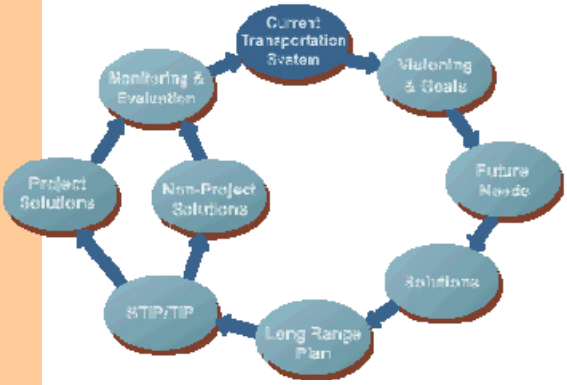
Federal legislation (23 U.S.C. 134) requires the MPO to work in cooperation with the State and public transportation agencies in carrying out a continuing, cooperative, and comprehensive (3C) metropolitan planning process. These agencies are allowed to determine their mutual roles and responsibilities, and they develop procedures governing their cooperative efforts. These working relationships must be formally established, usually through agreements or memorandum of understanding between the MPO and the State, and between the MPO and the public transit operators.[14]

The CDTC's basic document defining the roles and responsibilities of the various parties is its five-year *Continuing Operations Plan (Prospectus) 1990-1995*, which was adopted in December 1990. CDTC recognizes that the *Prospectus* needs refreshing, and it has current versions of all sections of the prospectus but has not formally issued a revised document. CDTC delayed in updating the document because the uncertainty of the outcome of the NYSDOT's internal *Transformation* process as well as the then-upcoming SAFETEA_LU and potential new federal planning requirements. Now that both variables are understood, CDTC will update the prospectus during the coming year. We note that CDTC does issue a very informative "Reference Guide to the Capital District Transportation Committee", which details the purpose of the MPO, how it is structured, member agencies, roles and responsibilities, and so on. This Guide is updated annually, the last update being September 2007. CDTC also has additional documents that describe the MPO responsibilities and working relationships: NYSDOT/CDTA agreements and the CDTC-CDTA Memorandum of Understanding.

Since CDTC is within an air quality nonattainment area, Federal regulations also require two additional agreements/ arrangements relating to CDTC nonattainment area. These arrangements are discussed in *Section XII Air Quality*.

Recommendation

- CDTC complete an update of its *Prospectus* to reflect current working relationships and federal regulations.



CDTC Staffing and the UPWP

"The staff seeks to apply a diverse set of skills to ensure that CDTC's deliberations are founded on solid technical work and broad public access." A Reference Guide to the CDTC, September 2007 edition

The CDTC carries out its transportation planning activities through a cooperative process involving a Central Staff, the staffs of member agencies, and consultant services as needed. The Central Staff performs the bulk of the federally funded MPO planning activity. NYSDOT, CDTA, CDRPC, the Town of Colonie and the local municipalities provide state and local financial support to the program.

The Central Staff

The CDTC's Central Staff has long been regarded as highly capable and professional. Led by John Poorman, a nationally respected transportation planner, the staff is 12-15 individuals (including interns), which is rather small for an MPO this size. The current Unified Planning Work Program (UPWP) budget allots almost $1.7 million to the Central Staff activity for the current year.

The CDTC staff's organizational structure is "flat" rather than hierarchical, with no intermediate layers of authority between the Staff Director and the rest of the staff (except for oversight responsibility for the interns and planning aides). Staff members form work teams when dealing with studies/projects of overlapping interest, and the effort to cross-train staff on many subjects is ongoing. This organization structure requires both personal initiative and teamwork, and it has been successful. John Poorman stated that he now is able to work part-time[15] because many of his staff have the experience and qualifications of stepping into his position. There have been relatively few staff turnovers over the past 15 years, even though the workload and responsibility on each member is greater than many MPOs larger in size.

The Administrative and Financial Standing Subcommittee (A&F), a subcommittee of the Policy Board, sets the staffing plan for the Central Staff. As previously noted, the staff's size is somewhat small for an MPO with CDTC's responsibilities, and the addition of positions in response to an increase in Federal planning resources is not automatic. For example, as FHWA's metropolitan planning (PL) funding resources increased under TEA-21, CDTC consciously chose to support of the *Linkage* program rather than having a corresponding increase in staff size. This decision has greatly benefited local land use and transportation planning efforts.

The staff enjoys the trust of the CDTC member agencies, and they have achieved a good rapport with communities around the region. The Staff is presently located at perhaps the most prestigious sounding address in the Capital District: 1 Park Place.

Host Agency

When the MPO Policy Boards were established in New York in the mid-1970s, all MPOs agreed that their central staff had to be both professional and *independent.* This is deemed necessary to assure the decision makers that the staff's recommendations were unbiased toward any member agency's viewpoint. At the same time, central staffs need "host agencies" to provide logistical support, as they are not legal entities separate from their member agencies. The host agency functions primarily as a funnel for the money; it administratively houses the Staff, pays the salaries before federal reimbursement, and executes contracts on behalf of the staff. The central staffs in all New York MPOs receive direction from the Policy Board and Planning Committee through the Staff Director; the host agency does not supervise the Staff.

Originally, the CDTC staff was hosted by the Capital District Regional Planning Commission. Since 1982, however, the administrative host has been the Capital District Transportation Authority (CDTA), the major transit provider for the region. CDTC developed written procedures that describe the division of responsibilities between CDTA and CDTC for financial recordkeeping, grants management, billing and other activities. CDTC also adopted consultant selection procedures, hiring and salary procedures, administrative procedures and other internal documents. CDTA serves as the legal "parent" to CDTC, processing payroll expenses and making benefits payments, maintaining bank accounts, issuing checks for vouchered expenses and entering into contracts on behalf of CDTC.

By agreement, CDTA defers virtually all authority over the staff and contractual activities to CDTC's Policy Board. CDTA is recognized as a model host agency within New York.

CDTC pays CDTA $45,000 annually to cover the approximate staff cost to CDTA for the work it does on behalf of CDTC. The payment also helps CDTA justify the cost of absorbing CDTC's pre-financing needs which range up to $500,000 at any given time. CDTA also initiates an annual compliance audit of both CDTA and CDTC; CDTC's report is kept distinct from CDTA's and CDTC reimburses CDTA for the cost of the CDTC piece.

Unified Planning Work Program

The MPOs are required to develop Unified Planning Work Programs (UPWPs) as a basis and condition for all FHWA and FTA funding assistance for transportation planning within their boundaries. UPWPs describe all metropolitan transportation planning and transportation-related air quality planning activities anticipated within the next 1- or 2-year period, regardless of funding source.[16] MPOs develop these documents in cooperation with the State and public transit agencies. The degree of detail in the UPWPs differs according to the type of area, with the TMA areas required to have significantly more detail than non-TMA areas.

The CDTC has embraced the two-year UPWP concept, the current one being the 2008-2010 UPWP that was adopted in March 2008. The $3.9 million UPWP covers the period of April 1, 2008 to March 31, 2010, and it reflects the goals and objectives of CDTC's *New Visions* Plan, the Community and Transportation Linkage studies, and the *New Visions for a Quality Region* initiative that began in 2002.

The two primary sources of federal planning funds supporting the UPWP activities are FHWA's Section 104(f) Metropolitan Planning (PL) funds and FTA's Section 5303 Metropolitan Planning Program (MPP) funds. The Federal funds in the 2008-2010 UPWP from these programs are $2,295,476 and $550,249 respectively. The central staff activity is primarily matched by NYSDOT in-kind services that exceed $500,000.

Because the CDTC staff and CDTC member agencies (primarily CDTA and CDRPC) carry out specific activities that are beyond the normal MPO planning activities, the UPWP also includes other additional resources:

- $3,850,000 FHWA SPR funds[17]
- $125,000 FHWA STP funding for CDTC staff activity on specific project development activities

- $30,000 each from the Town of Colonie and Albany County on similar technical services
- $181,000 local cash contribution to support CDTC's Linkage program
- $755,000 in FHWA's CMAQ funding for three CDTA projects[18] in the TIP that are planning related
- $12,500 from the Department of Energy[19]

The 2008-2010 UPWP contains nearly $1,000,000 in CDTC-administered consultant contracts along with one "pass-through" consultant effort of $100,000.

CDTC's capable management of UPWP tasks and studies is duly noted; CDTC is a model MPO in this respect. Descriptions of tasks, funding sources, expected products and participating agencies are made clear in the document. Studies are completed in a timely manner and multi-year tasks are clearly tracked. While other MPOs are finding it difficult to effectively manage the UPWP, the CDTC does so in a seemingly effortless manner. They provide useful information and make it accessible.

As discussed throughout this document, the Staff continually turns out very professional and readable products, and it is at the forefront of New York MPOs in land use and transportation planning. Individual aspects of this technical capability are discussed in the subsequent sections of this report. The facet of the CDTC staff operation to be discussed at this point is modeling.

Travel Forecasting

CDTC's travel demand forecasting model is called the Systematic Traffic Evaluation and Planning (STEP) Model, which utilizes VISUM software as its basic platform.[20] One of the most desirable feature of VISUM is its ability to merge GIS-data and transportation data into a common database with several layers including: Traffic Analysis Zones and jurisdiction boundaries; transportation network with connectivity, street centerlines, intersection turns and transit routes; user defined attributes and user defined object classes; and back-ground maps. This GIS integration enables networks to be coded in a geographically accurate way. Network links are not simple straight lines but can have a specific shape described by a polyline. Another advantage of the GIS integration is that users do not need other GIS software for post-processing and

Key Activities for 2008-2010 UPWP

- Completion of the Hudson River Crossings Study and initiation of several other Integrated Transportation Corridor Efforts.
- Completion and implementation of the Transit Development Plan.
- Development of the 2009-14 TIP.
- Engagement on financial issues and regional growth patterns with the broader community.
- Further exploration of and scope development for to-be-selected Big Ticket/ Big Idea Initiatives.
- Town of Colonie GEIS impact assessment.
- 2010 Census preparation.
- Regional operations committee development.
- Regional safety systems planning.
- Bike and pedestrian planning.
- Data collection, utilizing GPS and consultants in coordination with NYSDOT's efforts.
- Integration of Transit Development Plan work into New Visions.
- Demand management, car pool, bus pool, van pool promotion.
- Air quality planning in conjunction with a new State Implementation Plan.
- Further migration to VISUM and VISSIM models.

presentations.

The STEP Model contains the 928 zones from the new zone system established for the 2000 Census, as well as 72 additional zones for special commercial developments and external trips. CDTC used the 2001 National Household Travel Survey[21] and the 2000 Census to confirm model trip rates and trip lengths. Where possible, **CDTC uses locally-determined trip generation rates**. The MPO staff has collected extensive field information on site-based trip generation rates to permit a significant refinement in site impact assessment from the use of nationwide averages. Mode-choice is not part of the model.

After it completes the documentation of the upgraded STEP Model, CDTC will explore the next phase of STEP Model development-development of a multi-hour, trip chain model. Preparations will begin for incorporating the next generation of Census data and NHTS data, as well as enhanced travel data from MIST and other new technology based travel data bases.

The *Air Quality* section of this report discusses CDTC's **backcasting** approach to regional VMT estimation.

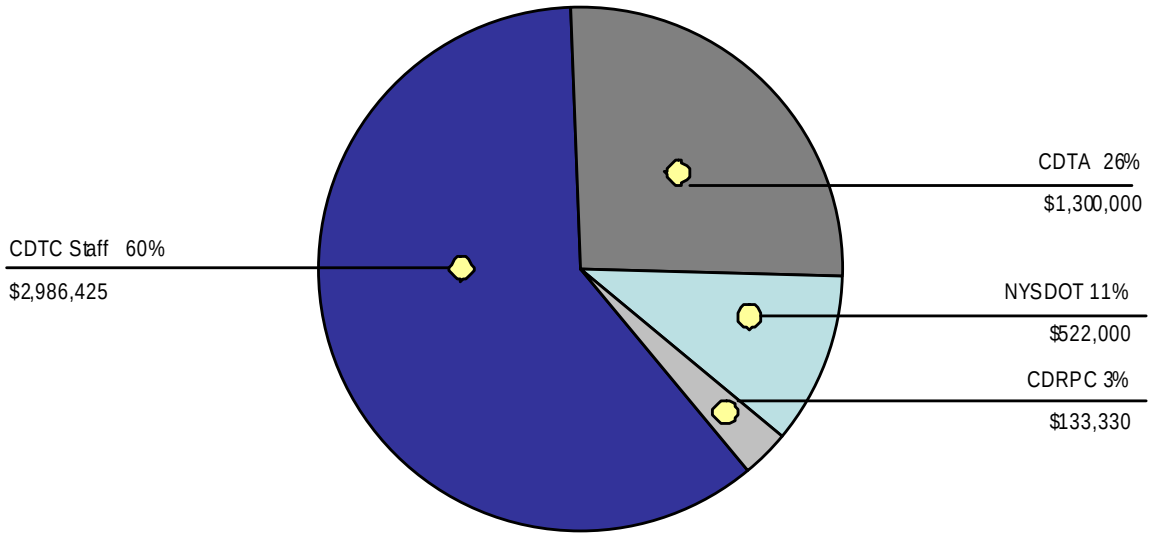
For project level simulations, CDTC is continuing to gain experience with the micro-simulation tool, VISSIM. The Hudson River Crossing Study used VISSIM to analyze existing and future traffic conditions on I-90 and I-787. CDTC will explore opportunities to incorporate VISSIM modeling into planning studies, and to develop inter-operability between VISUM (regional model) and VISSIM (traffic micro simulation) in the Capital District. VISSIM will enable enhanced modeling of roundabouts and HOV.

Data Systems

CDTC has the following data systems in place:

- NYSDOT annual bridge inventory (850 bridges)

Figure 2: 2008-2010 Unified Planning Work Program



http://www.cdtcmpo.org/upwp/upwp.htm

- NYSDOT annual scoring of touring route system (2500 lane miles)
- CDTC biennial scoring of non-state FA system (1400 lane miles) since 1983
- CDTC quadrennial sample scoring of local roads (9400 lane miles) since 1984
- CDTC supplemental 100% scoring of Albany county roads
- CDTC supplemental 100% scoring of Albany city roads
- Transit system infrastructure age, rehab/ replacement plans
- Vehicles, stations
- Facilities
- ITS
- Signal system, ITS capital needs estimates
- Sidewalk inventories, "ped friendliness"
- Operations and maintenance
- State
- Non-state
- Thruway
- Transit

CDTC uses a highway condition prediction model developed as an extension of NYSDOT's model. CDTC's model is run separately for state and non-state federal aid roads, and for local system roads, using differing repair strategies, costs, budgets and deterioration rates to determine the long-range budget needs of the road system. For other systems, spreadsheet software is used to evaluate alternative transit system rehab / replacement strategies and to approximate long-term annualized costs for capital replacement on rail and air intermodal facilities.

Consultant Administration and Management

The CDTC staff manages an extraordinary number of consultant contracts, the major contributor to this workload being the Linkage program, wherein CDTC staff manages the local land use/transportation consultant studies funded through the UPWP. The Staff crafts the study scope in collaboration with the community, guides the study steering committee, and reviews and oversees consultant activity. The staff has streamlined the process for consultant selection by developing detailed scopes of services before soliciting consultant interest and publishing a Request for Expression of Interest (REI) instead of a full-blown Request for Proposal, thereby minimizing the amount of up-front consultant effort. The CDTC follows a "fair access" policy that provides work to a wide range of firms whenever there is not a compelling reason to select a particular firm. Nearly 20 different firms have been contracted in the past few years, broadening the region's exposure to creative consulting firms.

CDTC will continue to hold the annual contract for the statewide MPO Association staff support (see next paragraph). CDTC also administers the contract for the second phase of a statewide effort to educate stakeholders and demonstrate methods of integrating community design and transportation system design, and the contract for exploration of mitigation cost and other municipal and developer-oriented approaches to financing transportation improvements.

In addition to overseeing consultant contracts, the CDTC staff provides site impact review assistance on request to municipalities; in one town, an ongoing contractual relationship gives the staff responsibility to review proposals and identify appropriate mitigation fees.

Statewide Efforts

The 13 MPO Directors in New York State have formed an organization entitled the *New York State Association of Metropolitan Planning Organizations* (NYSMPOs). This coalition of MPOs has decided to work together on planning and research efforts toward common goals, and they have agreed to pool some of their FHWA PL and FTA Section 5303 planning funds on joint projects. In 2002, the NYSMPO decided to hire a consultant to serve as the Association's staff. From 2000 to 2007, the services were capably provided by Sarah Siwek Associates. At present, the contract is with Wilbur Smith and Associates. The annual budget for this activity is $230,000; CDTC administers the contract.

The activities undertaken with the pooled funds are called "Shared Cost Initiatives" (SCI). By pooling resources, the MPOs can undertake studies of topics of mutual interest that they individually might not have afforded. After a study is selected, the funds are administered by a single MPO on behalf of the group. In addition, NYSDOT provides added State Planning Research funding for statewide projects.

CDTC is now administratively overseeing the SCI entitled *Mitigation Cost Sharing*. This effort in intended to help the NYSMPOs explore better ways to integrate transportation and land uses through the exploration of mitigation cost sharing possibilities and their application to privately funded developments. Recognizing that impact fees are not permitted in New York State, this study would examine the practice of establishing mitigation cost sharing. In as much as CDTC has been an integral participant in the Albany Airport Generic EIS and its mitigation sharing fee concept, CDTC was the logical choice to shepherd this activity on behalf of the other MPOs.

Consolidated Planning Grant?

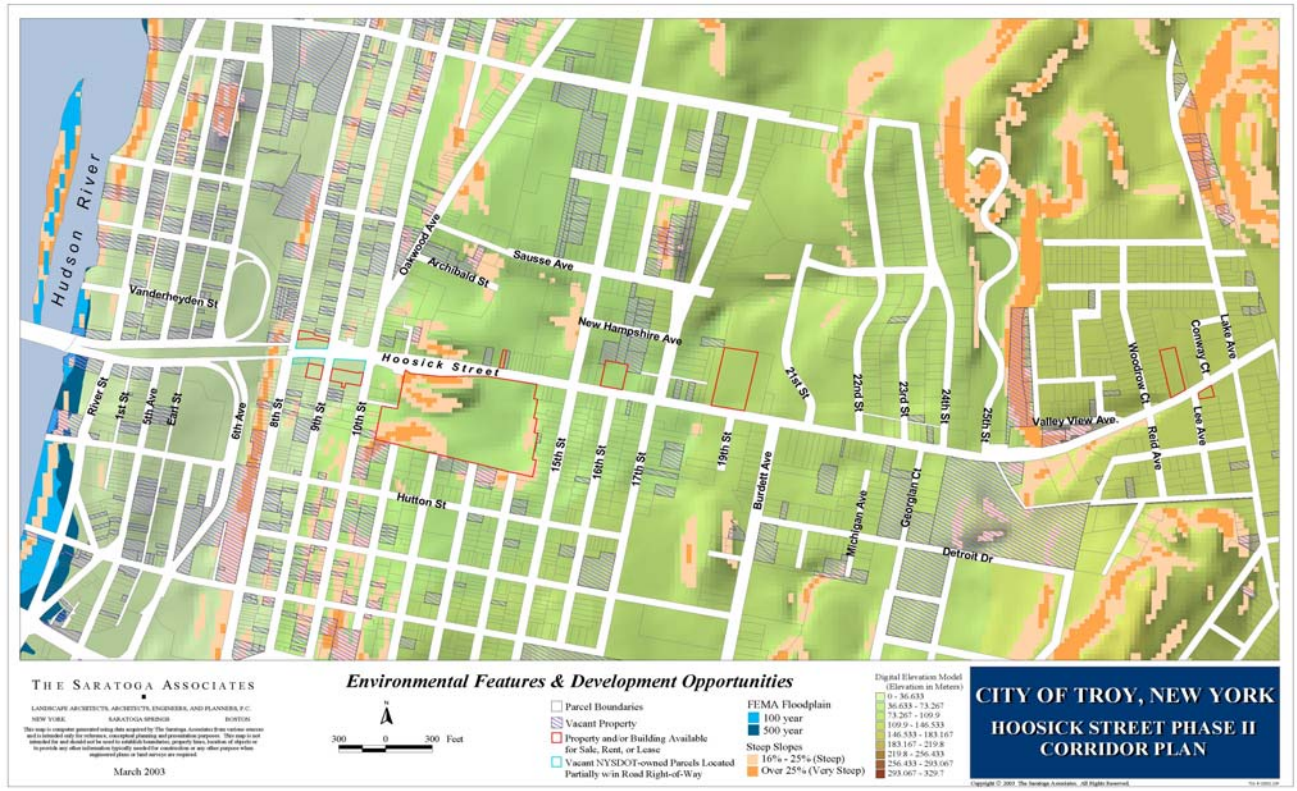
The consolidated planning grant (CPG) is a federal concept that allows FHWA and FTA planning funds to be combined (pooled) into a single consolidated grant. This program fosters a cooperative effort between the Federal agencies and the participating States to streamline the delivery of their planning programs and allows great administrative flexibility. Under CPG, only one agency (either FHWA or FTA) administers the federal grant and thus an MPO does not have to satisfy the somewhat different administrative and budgetary reporting requirements of two agencies.

Under the CPG concept, States/MPOs no longer have to wait for a particular agency's funds to be made available at the beginning of their program period; as long as any planning funds (FTA or FHWA) are available, those funds can be used for any of the work. Work will be authorized based on availability of combined FHWA and FTA funds. Additionally, the State/MPO does not need to identify which categories of fund(s) are budgeted for specific work program activities. Similarly, expenditures do not need to be tracked by source of funds and work program line items. MPO bills do not need to indicate the source of the Federal funds claimed. Through a consolidated approach certain planning program funds benefit from an improved matching fund ratio.

Several years ago, NYSDOT was actively considering this option for the MPOs, should they so choose. However, the Department went through its internal "transformation" process and interest in the idea waned. It is recommended that NYSDT reopen the consideration and, if thought beneficial, offer it to willing MPOs.

Recommendation

- The Consolidated Planning Grants should be investigated for those MPOs who want to pursue this fiscal mechanism.



Land Use and Regional Development Considerations in MPO Planning

"The metropolitan transportation planning process shall include the development of a transportation plan addressing at least a twenty year planning horizon. The plan shall include both long-range and short–range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods." 23 CFR §450.322

In the Capital Region, land is being consumed at a much greater rate than the population is growing. This implies that land is being developed for reasons other than population growth, such as tax base enhancement (i.e. luring businesses from one community to another) and an overall shifting of the regional population from city to suburb, particularly by families. In addition, land is being developed at much lower densities than in the past. This incremental development can lead to local land use decisions that conflict with the best interests of the region as the cumulative impacts of slow yet sprawling development may not be clearly seen in the development review process.[22] Incremental development can threaten regional quality of life through sprawl development, particularly since the region has not added much to its population in the last ten years. The Capital District Region expects a 9% growth in population over the next 25 years, with a 15% growth in households if current development patterns continue.

Historically, the CDTC has assessed the likely effects of transportation policy decisions on land use and development patterns. Many MPOs approach the issue of transportation and land use from the standpoint that the transportation system must react to land use decisions that are often uncoordinated and haphazard. This region, however, has chosen to develop a vision of what development patterns it wants, and then it makes

use of transportation system investments in ways that support this vision.

Almost everyone agrees that, for the overall benefit to a region, municipalities need to view development patterns from the regional perspective. Agreeing to work cooperatively, however, remains a local decision. The Federal planning requirements place considerable importance on the link between transportation planning and land use planning, though there are no federal laws mandating specific regulatory actions. Even the Congress, when it was creating the federal transportation planning regulations, considered - but rejected - requiring land use planning per se as part of the transportation planning process. Instead, the regulatory language mandates consideration and "consistency" with the local land use and development decisions, thereby allowing the MPO to decide whether, or to what extent, it should consider land use in the planning process.

CDTC's *New Visions* plan is an effort to help guide the region toward achieving the region's desired future conditions – what the region wanted to be in 20 years. New York, however, is a "Home Rule" State, which means that the power to establish land use control is delegated to local government.[23] Local governments, who are not required to plan in any prescribed manner or coordinate with any other local government, decide on the nature and form of those land use development controls. Since these communities are highly dependent on local property taxes, the legislature has pitted localities against each other in a constant struggle over tax rateables. This can, and usually does, lead to urban sprawl and local communities working at crossed purposes with each other and the State. For some, sprawl is actually desirable - rural communities may wish for the new shopping mall or housing development, even if it is a migration from other parts of the Region. Because of Home Rule, municipalities, counties and regional planning bodies throughout New York State have taken various approaches to encouraging regional land use planning.

CDTC has fostered and embraced several innovative and proactive approaches to the coordination of land use and transportation decisions, in particular at the local level.

A Sense of Place

The Capital District has adopted a definition of a "Quality Region" that embraces many advantageous characteristics, one of them being that it "fosters community identity and "**a sense of place"** in <u>all</u> parts of the region."[24]

What does this mean? Basically, it means avoiding becoming an "anywhere" type of community. Too often travelers might have a difficult time discerning whether they are in Buffalo, Denver or Augusta. Too often, many communities have a similar bland development patterns. In contrast to amorphous, indefinable development, a "place" is considered more than just a "site". CDTC tries to cultivate a sense of place - even in a new locality. CDTC's approach attempts to pull alongside the common sense of the public; when leaving work and driving home – would you like to live in a community that has a sense of place or not? Most would choose the former.

The sense of place approach considers that a street going through a community isn't just a facility to get from one point outside the community to another point also outside, but rather the street must be considered as part of the community. A roundabout can perhaps be seen as a gateway to a community. In approaching project design, you consider context sensitive decisions rather than robotically opting for the full-build alternative. Rather than automatically improving congestion to a level of service (LOS) "C" or higher, should you consider something lower, more compatible with the community's values? For example, when CDTC conducted a survey of 14,000 residents and businesses along Route 5, a heavily congested arterial, 80% of the responders said that the existing LOS ("F" in several places) was acceptable <u>if</u> other benefits/improvements were implemented. When designing a project, LOS is now only one consideration/principle among many that CDTC considers.

Despite the challenges to planning in a regional context, progress has been made in recent

years due to new initiatives at CDTC and in New York State to support local planning. For CDTC, nothing has had a greater impact than the development of the regional transportation plan *New Visions* (page 30) and its subsequent implementation efforts, including the development of a local planning assistance program known as the *Community and Transportation Linkage Planning Program* (page 27).

Cooperative Approach to Regional Planning & Development

There are several working relationships in the Capital District region that have been fostered through the CDTC process to the greater benefit to regional planning.

Capital District Regional Planning Commission

CDTC has long enjoyed a cooperative relationship with the Capital District Regional Planning Commission (CDRPC), a voting member on the Policy Committee. CDRPC was established as a regional planning board in 1967 by a cooperative agreement between the counties of Albany, Rensselaer, Saratoga, and Schenectady.

The CDRPC, with its seven person staff, is governed by a Board composed of 20 members (Commissioners), five from each of the four Capital District counties, appointed by their respective County Legislative Bodies. Its original purpose was "…to perform and support comprehensive planning work, including surveys, planning services, technical services, and the formulation of plans and policies to promote sound and coordinated development of the entire Region."[25] Over time, the purpose or mission of the Planning Commission has evolved in response to changes in the region's needs, funding sources, organizational structures, and information technology. CDRPC's role has expanded into aviation planning, crime control coordinator, Economic Development District, Foreign-Trade Zone administrator, and data and information center.

The relationship between CDTC and CDRPC has always been close. CDRPC was the original host for the CDTC Staff until 1982 and it is also located in the same building as the CDTC staff. Using UPWP funding, CDRPC undertakes demographic and land use data collection as well as forecasting activities on the part of the MPO. In the 2008-10 UPWP, CDRPC activities are funded in the amount of $133,000. CDTC's *Quality Region Task Force*, a vital component of the *New Visions 2030* planning effort, is jointly staffed by the two agencies.

CDRPC would seem to be the logical regional organization to actively pursue regional coordinated land use planning efforts, but that has not occurred to date. The home rule powers of New York State weaken the ability of regional entities such as CDRPC and even counties to directly plan for the region as a whole. CDRPC has *no direct* authority over land use and therefore *no direct* say in the local decision making process. Furthermore, local governments are *not required* to consult with CDTC or CDRPC on local land use or transportation planning.

CDRPC did adopt a Regional Development Plan (RDP) in 1978. However, the RDP was carefully described as "a policy guide after receiving official endorsement by the legislative bodies in each of the four counties." The plan was officially *endorsed*, not adopted, by the four counties in 1978. That subtle difference in language represents one of the underlying challenges in creating such a plan. Although a new regional development plan is still a recommended action in *New Visions*, the actual development of a plan is not likely and indeed is no longer a mandate by CDRPC's members.[26] However, CDRPC is closely involved with CDTC in the development of *New Visions.* Although *New Visions* may not evolve into a true regional development plan, it does identify agreed-upon regional land use policies and it allows CDRPC to explore the implications of alternative growth and development scenarios for the region.

CDRPC has been reluctant to weigh in on land use issues, especially controversial ones. This

often results in local municipalities, especially village and town planners, having to face controversial issues without the backup support of a regional planning body. This is not a criticism of the CDRPC, as many pressures come into play and CDRPC has not been empowered to take on an ombudsman role. CDTC's *Linkage* efforts have helped to fill this planning need.

Center for Economic Growth

CDTC has reached out to the Center for Economic Growth (CEG)[27], which some consider to be the equivalent of a "private MPO". CEG is a private, not-for-profit, membership-based economic and business development organization committed to regional economic expansion throughout New York State's Capital Region and Tech Valley, a region of more than 1.1 million residents. This area covers the four counties in CDTC plus seven other counties in Upstate New York: Columbia, Fulton, Greene, Montgomery, Schoharie, Warren, and Washington.

CEG's intention is to enhance the Region's competitiveness by attracting high-tech talent and companies through site location assistance and also provided innovative services to grow local businesses and prepare regional communities for future growth. The CEG maintains a Local Government Council of chief elected officials (with a significant overlap with CDTC's Policy Board) and engages not only in regional marketing but also in the subjects of regional growth patterns, suburban sprawl, workforce development and urban revitalization. Rather than challenge or compete with CEG, CDTC has prudently chosen to partner with CEG and increase the scale of resources directed at areas of common concern.

Realizing that CDTC had already established strong regional planning and transportation investment principles, CEG produced a Regional Development Strategy, which led to the creation of a Regional Development Coordinating Council (RDCC) of regional entities, including CDTC (John Poorman), CDRPC, Albany-Colonie Regional Chamber of Commerce, Mayor, City of Cohoes, and the CDTA.

One of the major initiatives of this RDCC is the *Regional Development Compact*. Draft CEG language for the Regional Development Compact was modified to reflect revisions by CDTC and CDRPC staff in March of 2005. Voluntarily adopted by 12 communities at present, the concept of RDC is to ensure that communities meet economic development criteria to market themselves to site selectors and business prospects.

The CDTC's strong regional policies and the *Linkage* planning program (see next page), combined with the private-sector-initiated Regional Development Compact constitutes the core of a new model of regional planning that respects the reality of home rule.

These relationships don't happen overnight. There is a need for a comfort level with the parties, and it takes time to develop these relationships. One of the greatest advantages of CDTC's multi-year, evolving *New Visions* approach is that the process has given the needed time and opportunity to develop such relationships.

Reaching and Implementing a Regional Vision through Collaboration

Reaching Consensus at Multiple Tables

At no time in the past thirty years have so many local leaders, and so many of the region's residents, been voluntarily engaged in thinking about the region's future. Because of explicit effort to have many individuals and institutions participate at multiple discussion tables, the individual initiatives have grown to become a strong collaboration. The choice has been made to encourage a high level of overlap and coordination of initiatives rather than force an integration into a single effort. This type of collaboration has been extremely successful in forging a common agenda while maintaining creativity and achievement within each of the initiatives. The key regional initiatives are:

Capital District Transportation Committee / Capital District Regional Planning Commission: "New Visions for a Quality Region" effort. Jointly-staffed, multi-disciplined task force working within structure of the established regional planning entities. Published a landmark document, "Pursuing Quality in the Capital Region in 2003"; followed up with work by seven task forces on issues of common interest best led by the MPO – alternative growth scenarios; the future of the expressway system; "big idea" and "big ticket" concepts; larger-than-regional policy issues; and improving local planning in a regional context.

Business/ Higher Education Roundtable. University presidents and corporate CEOs working with local government leaders on the future of the region. Subjects include local planning processes, high tech opportunities, workforce development, the regional transportation system, and structural issues affecting the ability of Upstate New York to compete in a global marketplace.

Center for Economic Growth. "Regional Development Strategy." Private-sector initiative to expose, train regional leaders in high tech development opportunities, issues. The initiative has led to efforts to foster intelligent local planning; the creation of a regional "cabinet" of CEG, CDTC, CDRPC and the Tech Valley Chamber Coalition; a Regional Development Coordinating Council of all multi-county public and private entities; and promotion of a regional development compact. In 2006, a joint CDTC/CDRPC/CEG/University of Albany study will articulate the fiscal impacts of alternative growth scenarios on transportation, sewer, water, public protection and schools.

Tech Valley Chamber Coalition. Coalition of seventeen counties' chambers (well beyond the traditional metropolitan core) engaged in exploring ways of capitalizing on high tech growth for benefits throughout the region. In cooperation with other regional partners, has pursued regional "branding", has developed a region web portal and has embraced the "quality of life" aspirations developed in the other initiatives.

ARISE. Four-county faith, neighborhood and labor-based group with smart growth, urban revitalization, inner-city housing, workforce development and other planning-related focal areas. Has sponsored regional summits on sprawl (funded in large part by CDTC) and has created a statewide network to seek state planning legislation.

The high level of interest and energy by regional leaders and others engaged in these efforts is unprecedented. It is also a cause for celebration.

Interesting MPO Practices at CDTC
Capital District Transportation Committee
March 2006

2030 Alternative Development Scenarios

During the development of the *New Visions 2030 Plan*, CDTC decided to utilize CDRPC to analyze different scenarios of demographic growth in order to test the impacts of growth. CDRPC conducted an in-depth analysis of the demographic distributions and land use patterns for four scenarios:

- Status Quo Trend - This is CDRPC's baseline forecast (9% growth in population, 15% growth in households by 2030, current development patterns continuing); this is the official Plan forecast and is probably the most likely based on past trends;
- Concentrated Growth - This scenario assumes the baseline growth rate, but with more concentrated development patterns resulting from urban reinvestment and suburban planning;
- Trend Hyper-Growth - This scenario assumes "hyper-growth" (29% population growth and 35% household growth by 2030), with trend patterns of dispersed development; the rate of growth mirrors the national average of one percent per year;
- Concentrated Hyper-Growth - This scenario assumes hyper-growth occurring in a concentrated pattern resulting from more urban reinvestment and suburban planning.

CDRPC prepared a 2005 report for CDTC's Working Group A, entitled, *Effects of Alternative Growth and Development Scenarios in the Capital District*. The report explored the population and land use patterns related to four different future development scenarios in the Region, and it included both quantitative and qualitative discussions of the implications of the different scenarios, as well as discussions of historic and future Regional demographic and development trends.

Under any growth scenario, the positive benefits of concentrated development patterns are significant for the transportation system and for regional quality of life, and so the *New Visions 2030 Plan* supports and encourages concentrated development in the Capital District.

After the demographic analysis, CDTC then collaboratively worked with CEG, CDRPC, and the University of Albany Department of Geography and Growth to assess the fiscal impacts of the four regional growth scenarios. CEG put up $50,000 in private funds for this effort. The fiscal analysis was reported in 2006 report entitled *Estimating the Fiscal Impact of Alternative Futures for the Capital Region*.

Based on the latter report, there is strong support from the business community for urban reinvestment and concentrated growth patterns and for a strong transportation system that will support sustainable economic growth for the region.

The MPO's Influence on Land Use Planning

Besides its supportive efforts previously with CDRPC and CEG, the MPO has not been hesitant to weigh in on land use. Organizationally speaking, the CDTC Policy Board is somewhat analogous to a regional council of governments, composed of the chief elected officials (or appointees thereof) of the major local governmental entities in the Capital Region. Since CDTC Policy Board operates by consensus, it is a "safer" environment in which to operate when important and perhaps potentially controversial decisions are needed.

CDTC's active encouragement of local land use planning can be seen both in its investment and planning principles and in two specific best-practice planning efforts. Regarding investment, the CDTC adopted planning and investment principles to guide its decisions; the CDTC will only fund capital projects designed to provide significant highway capacity expansion only under "*compelling conditions*". One of the compelling conditions prior to CDTC's investment of transportation dollars is

that a local land use development plan has been completed. Thus, CDTC usually insists that the local governmental has evaluated and set conditions on land use development. Furthermore, there are five other investment and planning principles specifically concerning land use and transportation.

The following sections describe two best-practices CDTC planning efforts regarding the integration of land use in transportation decisions: the *Linkage Program* and the implementation of the *Albany County Airport Area Generic Environmental Impact Statement* activity.

The Linkage Program

CDTC initiated its ***Community and Transportation Linkage Planning Program*** *(Linkage*) in 2000, in part because of the realization that the most commonly cited obstacle to achieving the vision and goals put forth in the *New Visions* plan was getting local governments to work together as a region.[28] *New Visions* plan specifically stated that, even with the full implementation of CDTC's desired capital investments in the plan, the region would still fall short of the quality of life if there is no dampening of growth. "Innovative, intelligent and coordinated local planning and private investment is as important – if not more important – than regional transportation investment in meeting the goals." [29] CDTC thus recognizes its need for a proactive and coordinated local planning effort. CDTC's response to this realization was the highly successful Linkage Program.

Linkage* Program*:

A key implementation activity of *New Visions 2030*, which is predicated on reducing the growth of vehicular travel in the Capital Region.

The Linkage Program is also the cornerstone of CDTC's Local planning Assistance and public outreach efforts.

The Linkage program is a land use/ transportation planning assistance program to support local planning initiatives. It provides consultant or CDTC staff technical assistance for joint regional-local planning initiatives that link transportation and land use. It is a key implementation activity of *New Visions 2030*, which is predicated on reducing the growth of vehicular travel in the Capital Region.

The Linkage Program is also the cornerstone of CDTC's local planning assistance and public outreach efforts. CDTC's transportation and land use policy is that good site and community design are essential to achieving regional transportation system goals. The Linkage Program is one of the most significant cooperative regional efforts in the nation to reflect, in practice, what representatives of the region's counties, cities, towns and villages as well as state and local transportation providers have adopted as policy.

The Linkage Program is a competitive program funded by federal funds through the UPWP. They are locally initiated and carried out by either CDTC staff or by private consultants under CDTC's overall management. The candidate planning studies require a local match requirement of 25% cash minimum up-front. Local sponsors can add extra cash or in-kind services in their application. There is no set minimum size for requests. The maximum size for requests is $50,000 (the federal share excluding the required 25% local cash match) for consultant efforts and $10,000 for CDTC staff efforts

If a selected study will be done by consultant, CDTC staff manages the project, works with project sponsors to develop requests for proposal, evaluates proposals, selects consultants, develops contracts, participates in study advisory committees, monitors work progress and solicits and evaluates proposals for future Linkage Program projects. Linkage procedures require that study advisory committees be established, with members appointed by the project sponsor (a CDTC staff person is a required member).

A CDTC staff person generally attends all workshops/public meetings and often helps the consultant facilitate those discussions.

CDTC assigns approximately 30% of the FHWA PL funding in the UPWP to local land use planning and transportation integration through the Linkage Program.

To date, CDTC has funded a total of 59 collaborative, jointly-funded studies since the inception of Linkage Program in 2000. Approximately $4.0 million in federal, state and local funds have been committed to the Linkage Program since its inception. Planning efforts include bike and pedestrian planning, urban neighborhood revitalization, suburban town center retrofitting, pre-development master planning for a major suburban area, urban truck/neighborhood compatibility planning, waterfront revitalization and intermodal center exploration.

Study sponsors have been diverse, representing 34 separate urban, suburban and rural municipalities and non-profit organizations. The CDTC thus entertains study proposals from a wider group than just the regular members. Several proposals from non-profit groups have been funded (e.g., Albany Housing Authority). These non-profit groups do not physically receive federal funds because CDTC holds the consultant contract, but they are intimately involved in identifying a problem and coming up with solutions; the affected municipality, of course, has to concur in the eventual project recommendation.

CDTC developed a "Request for Expressions of Interest" (REI) procedure that minimizes consultants' preparation work and reviewers' work in selecting consultants; this procedure also maximizes the extent of potential consultants' participation. The CDTC staff follows a "fair access" policy in consultant selection. For consultants, this means that there are no predetermined favorites based on previous contracts. The consultants realize this, and competition for award of contract is lively - as many as 17 consultants have bid on some of the less than $50,000 studies. On the studies, especially on those having small budgets, the CDTC staff involvement has had a great "value added" in terms of overall study quality. CDTC's oversight and management have been so popular with the local municipalities that the staff's support budget in the UPWP had to be increased to $100,000 in the latest UPWP.

Most of these studies have not been expensive (less that $50,000), but they are very meaningful to the local sponsors. Embracing the *New Visions* approach of "what do we <u>want</u> to happen?" CDTC acts in a way that fosters local community ownership of the final product identifying a "sense of place". CDTC strives to empower the locals during the development of land use and transportation recommendations and eventual decisions thereon. A high level of local ownership is achieved. This approach is largely analogous to advanced community planning at the local level. The effort, especially for those local sponsors who are not directly represented on CDTC committees, helps to bring them into the process.

There has also been a high level of coordination between the recommendations from completed studies and new proposals to the TIP. The CDTC requirement that TIP candidate projects must derive from local plans before they are eligible for TIP consideration reinforces the interest in the *Linkage Program*.

We note that CDTA, the MPO's host agency, ultimately holds these *Linkage Program* consultant contracts, and we congratulate the CDTA for its willingness to take the risk on this new concept.

We again note that when PL funding resources increased, CDTC consciously chose not to proportionally expand its central staff; rather, CDTC close to support the *Linkage Program*. The CDTC member agencies are noticeably perceptive. This decision has greatly benefited local land use and transportation planning efforts significantly.

CDTC has established an ongoing "Linkage Regional Coordination Forum" with *Linkage Program* funding recipients expected to participate on a regular basis. This forum is proving to be a very successful regional planning roundtable, assisting in the sharing of planning experience among at least two dozen municipalities as well as regional and state entities. The Linkage Forum is also used as a sounding board for developing CDTC's regional development strategies, *New Visions* guidebook and *New Visions* training program.

Implementation of the Albany Airport GEIS

CDTC maintains a strong policy that differentiates public responsibility from private responsibility for highway plans that mitigate and accommodate local development. The prime example is the Albany Airport mitigation fee concept.

The 8,500-acre area in the vicinity of the Albany County Airport is a choice business location. It is land in close proximity to the Northway (I-87), the most heavily traveled road in the Capital District, and also close to several highly developed commercial areas and business parks. Recognizing the inevitable pressure to develop this land, and wary of that development's impacts on the transportation infrastructure, the Town of Colonie and the County of Albany prepared a Generic Environmental Impact Study (1990) to address the impact of expected increased airport activity and continued land use development. The GEIS evaluated the future development growth possibilities (20-year period) and associated impacts, and it came up with appropriate mitigation strategies. A critical component of the impact assessment was transportation infrastructure's ability to accommodate additional development in this area.

The GEIS recommended more than a dozen different transportation improvements in the area over a 20-year period. These infrastructure improvements are now being funded through a public/private partnership, with the private share of project costs calculated through mitigation fees (note: generic "impact fees" are illegal in New York). Transportation improvements and land development proceed in tandem. Infrastructure improvements keep pace with anticipated levels of development, and conversely, the pace of the land development approvals is limited to reflect reasonable expectations for infrastructure improvements. CDTC, NYSDOT, Albany County and the Town of Colonie have agreed on a set of principles on how and when these transportation projects are moved onto the CDTC TIP.

The implementation stage of the Airport GEIS effort has been underway for approximately *18 years*. CDTC staff has participated in the assessment of over 200 site reviews under contract with the Town of Colonie. Mitigation fees are assessed on the developer's percentage consumption of new peak hour, peak-direction traffic capacity by link and the cost by link of creating that capacity. In other words, it's based on the development's impact on travel, not on a facility $/square foot basis. Trip generation estimates and traffic assignment calculations show the percentage of peak-hour capacity consumed by the proposed development. This ensures that the development pays for the traffic it generates and it gives developers an incentive for implementing TDM measures.

To date, over 240 mitigation fee decisions have been made since the process began, resulting in mitigation fee assessments totaling more than $12 million. These fees have helped advance the Albany Shaker Road project, CDTA's shuttle bus service to the airport, and service road construction.

New Visions 2030 Plan

"The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

23 CFR §450.322(b)

The transportation planning excellence of the CDTC process is readily apparent in the years of development that have led to the *New Visions 2030* Plan - *The Plan for a Quality Region*. CDTC has a holistic approach to meeting the needs of the future: **transportation by itself means nothing – it has to relate/interrelate with the rest of community concerns**

The *New Visions 2030 Plan* was completed and adopted by the Policy Board in October 2007, and it received a positive FHWA/FTA air quality conformity determination on April 9, 2008. While the Plan is the long range *transportation* plan for the Capital District, it strives to have the region recognize the importance of land use design and smart growth management to maintain the quality of the region as well as the quality of the transportation system.

The key to the *New Vision's* effectiveness is that it is grounded in regional consensus, incremental changes, and fiscal constraint. The strength of the plan is in the degree to which consensus on key principles was achieved and in the affordability of the recommended actions.

This section will highlight some remarkable examples of cooperation, agreement, vision, excellent practices, and document what the MPO has achieved in many areas, particularly:.

- Extent of agreement within the Region
- Local decision-making in the regional context
- Investment Principles
- Alternative Growth Futures
- Big Ticket Initiatives approach
- Larger than Regional Issues

The Region

The Capital District Region is defined as the four counties represented on the MPO: Albany, Rensselaer, Schenectady and Saratoga. Within this are is 79 municipalities with a total 2000 Census population of 794,293. The Region's population has been relatively stable with only a modest amount of ethnic and racial diversity.[30] The growth rate has varied between 2% and 4% each decade since 1980. Much of the growth is occurring in Saratoga County, which CDRPC predicts to grow by almost 22% by 2030. The other three counties are also expected to grow, but at a much lower rates.[31] CDTC acknowledge that, although the region has the appearance that all is well (or almost all), the travel needs of the various populations of the Capital District differ greatly, are impacted by change differently, and may become more diverse in the years to come.

Some of the characteristics that define the Capital Region, both good and bad, are as follows.[32]

- Numerous small, older, traditionally-industrial urban centers.
- Suburban areas located primarily between these urban centers.
- An abundance of both underused land in older areas and undeveloped land in outlying areas.
- A strong home rule tradition.
- A high degree of auto-oriented mobility and yet a substantial number of households without vehicles.
- A stable but slow-growing economy.
- An increasingly diversified population.
- Growing concentrations of poverty in older urban areas.

The Capital region may soon experience significant growth due to its becoming a high-tech research and development hub. In 2002, the Capital District was recognized by the Forbes/Wolfe Nanotech Report as having the potential to "…become the Silicon Valley for nanotech and even surpass it in economic importance."[33]

There are twenty colleges and universities in the Capital Region, many with engineering and science programs. International SEMATECH, a consortium of the world's largest computer chip makers, is locating a new computer chip research facility at the University of Albany that may employ up to 500 people. Redevelopment of Albany's Harriman State Office Campus into a private, high-tech research and development park may add up to $220 million annually and 8,000 new jobs to the Region's economy. The proposed Luther Forest Technology Campus in Malta potentially represents one of the largest economic development initiatives in the Region's history, with hosting up to 2,500 new jobs in its first phase.

The potential growth of the region presents a significant challenge to transportation, and we believe that CDTC is positioned well to meet that challenge. CDTC states that its approach to transportation planning can be characterized by two words: Stewardship and Vision. It strives to "… answer questions such as: 'How will the expectations and role of the transportation system be different in the year (2030) from what they are today? What type of future development pattern should be encouraged through strategic transportation investments? How can the transportation system be managed or improved to enhance the quality of life, protect the environment and sustain economic vitality in the region? What are the financial requirements to provide the desired system and how can they be secured?'"[34]

We'll next discuss the development of the *New Visions 2030 Plan* and the state of planning coordination and agreement within the region. Please remember that when CDTC adopts goals and principles, it's not a mere Pollyanna-like semantic exercise – it's what the MPO delivers.

Evolution of *New Visions Plan*

The CDTC's current plan, *New Visions 2030*, is the fourth installment in a series of "vision" documents. Each document and the numerous supporting documents are the result of CDTC continually peeling away at the outer layers of its current state of knowledge and practice, revealing fresher layers of insight into how and why people travel, shared values, and how better to coordinate regional vision, land use and transportation at the local level. In *New Vision's 2030*, CDTC delved deeper into the quality of life paradigms of how transportation planning affects the Capital District.

As noted earlier, the close working relationships among the Capital District's public and private sector in regional planning didn't happen overnight. There is a need for a comfort level among the parties, and it takes time to develop these relationships. One of the greatest advantages of CDTC's multi-year, evolving *New*

Visions approach is that the process has given the needed to develop such relationships.

> *There is a need for a comfort level among the parties, and it takes time to develop these relationships. One of the greatest advantages of CDTC's multi-year, evolving New Visions approach is that the process has given the need to develop such relationships.*

To fully appreciate the existing state of long range transportation planning in the CDTC region, an appreciation of the evolution of the *New Visions* approach is beneficial.

The New Visions Plan (1997)

The *New Visions* approach to regional transportation planning is, as its name implies, visionary. When it first embarked on the new approach in 1993, CDTC's approach was novel among New York MPOs. The traditional approach to developing a regional transportation plan was to forecast future travel and population growth and then attempt to accommodate them. CDTC chose to step back and have a comprehensive, grass roots look at where the Capital District *wanted* to go in the next 25 years, and then estimate the financial resources necessary to get there. It was a proactive plan rather than merely a reactive plan. It was a holistic evaluation of regional planning and development, wherein transportation planning was to play an integral part in helping the region develop in the way the public wanted.

In stepping back from the typical reactive mode of transportation planning, CDTC wanted to ensure mobility, achieve intermodal integration, and enhance economic development potential in the region. CDTC established regional forums for the investigation of *fundamental paradigms* about how to achieve those goals. The process was not a "business as usual" approach.

Early on, CDTC made a policy decision regarding the eventual allocation of resources:

- Assure that basic system preservation needs are met *first*;
- Seek progress across *all* fronts whenever funding levels exceed the basic system preservation level; and
- Pursue funding sufficient levels to permit full implementation of the entire plan of reasonable actions.

Key to the regional consensus was a substantial and meaningful public input process. Nine task forces were established and charged with five overriding considerations: safety, land use, environmental impact, resource efficiency, and social justice and equality. These task forces were the heart of the *New Visions* effort. They were composed of interested parties (citizens and groups), CDTC staff, and Planning and Policy Board representation. Many of the participants were stakeholders who were not previously represented at the CDTC table. The Task Forces, which operated by consensus, made no specific recommendations on the suggestions – their role was to develop facts, figures and realistic costs.

The plan development process resulted in several exceptional policy decisions that still guide the CDTC decision-making process.

- **Transportation investment is to be based on function and need, not upon facility ownership**. Under this policy, all member agencies agreed to put all funds (NHS, CMAQ, STP) on the table; the best projects are selected according to CDTC investment strategy (and Federal eligibility guidelines), and then money is assigned. Thus, transportation investment decisions are *jurisdictionally blind.*

- **System preservation is defined in terms of maintaining existing facilities at the current (1996) conditions.** The Plan drew a figurative 1996 "line in the sand" regarding the condition and benefits of the transportation system.

New Visions
Nine Task Forces

• Expressway Management	• Transit Futures
• Arterial Management	• Infrastructure
• Bicycle & Pedestrian	• Special needs Transportation
• Growth Futures	• Goods movement
• Urban Issues	

Capacity and safety improvements and design upgrades carried out in conjunction with facility renewal are considered separately in the plan as *discretionary* improvements, similar to stand-alone capacity, safety, or bike/pedestrian actions.

- **CDTC will maintain an informed balance in transportation investments**. The plan establishes a policy that, after system preservation needs are met, *steady progress* is to be pursued across-the-board in 17 budget categories. If necessary, CDTC will steer federal funds to certain categories to ensure a balanced investment program in the TIP.
- **The Region will build strong urban, suburban and rural communities, knitting them into a cohesive metropolitan area.**

New Vision for the Capital District (1997) was adopted in March 1997 with a 2015 horizon period. The Plan was primarily a statement of principles, strategies and budgetary emphases to guide more detailed TIP project decisions, rather than a series of lines on a map. It provided priorities and a budgetary framework for the 5-year TIP, and it served as the basis for legislative discussions regarding programs and elimination of institutional and jurisdictional barriers. It was highly effective in shepherding transportation investment along regional desires.

Not unexpectedly, all issues raised during the plan development process were not resolved; some issues lacked a sense of urgency back in 1997 as compared to today; some decisions had to be postponed because of a lack of resources. CDTC revisited these issues in future documents, striving for consensus strategies and attempting to identify what resources might be available before urgency becomes critical.

New Visions 2021

The *New Visions Plan (1997)* was a groundbreaking plan among the MPOs, but its production had been a very exhausting process for both the MPO and the public – it had taken the full three years to reach completion. CDTC was faced, however, with the Federal requirement (at that time) for the Plan to be updated every three years if an MPO was in air quality nonattainment area (like the Capital District). Rather than starting the daunting task of anther comprehensive update, CDTC afforded itself of the flexibility under the planning regulations[35] and chose to do an incremental Plan update. The *New Visions 2030* Plan would return to the more comprehensive level of effort. The *New Visions 2021* plan, adopted by CDTC in October 2000, continued to embrace the philosophies of original *New Visions*. The

updated document received a positive FHWA/FTA air quality conformity determination on February 9, 2001.

In looking forward to the *2030 Plan*, CDTC created a Quality Region Task Force in 2002. It was CDTC's intention that the Task Force be a knowledgeable and diverse group which would help steer the *New Visions 2030* effort and revisit the unresolved and emerging transportation issues in a "visioning" exercise that also included the opportunity to take advantage of the "quality communities" movement. The combined effort was simply called "New Visions for a Quality Region".

Quality Region Initiative

Although broad agreement was reached on many transportation and developmental issues in the *2021* plan, there were issues relating to the quality of life in the region upon which consensus was not obtained. This included solutions to congestion in some major corridors, funding availability, and sometimes priority of need. CDTC wanted to revisit these issues in the *2030* Plan.

Quality Region

Definition

A QUALITY REGION develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change. A quality region creates economic, educational, social, cultural and recreational opportunities and provides safe neighborhood environments and housing choices for all; protects sensitive environmental resources and fosters community identity and "a sense of place" in all parts of the region.

Pursuing Quality in the Capital Region

To better explore the issue of a quality region and what that might mean to the Capital District, the Travel Task Force was created. This initiative was a joint effort by CDTC and CDRPC that served two complementary needs: the update of CDTC's *New Vision's* transportation plan and the update of CDRPC's *Regional Development Plan*. The task force was a small group of individuals that were assembled to help identify the issues and investment decisions that must be considered in order to achieve a quality region. It was not a policy group, and its mission was not to set policy or reach conclusions. Instead, it researched what issues have been raised in the past and compiled draft technical papers to distribute to a more diverse set of interested parties and stakeholders for review.

The Travel Task Force looked at *three areas of the transportation needs of six demographic market groups*. First, what will be the demographic, technologic, and societal changes over the next 30 years as they relate to transportation? Second, what are the segments (*market groups*) of the regional population that have similar travel needs? Third, what are the potential reactions to societal and technological changes by each of these market groups? The six market groups were identified as follows:

- Retired elderly dependent upon others for transportation
- Retired elderly independent of others for their transportation needs
- Single individuals with dependents that are working households
- Single individuals without dependents that are working households
- Couples with dependents that are working households
- Couples without dependents that are working households

After identifying the groups, the transportation impacts on each of the groups over the next 30 years were analyzed, and four draft technical papers were issued:

- *Demographic Market Groups in 2030*
- *Market Group Travel in a Changing Economy*
- *Land Use Impacts on Market Group Travel*
- *Public Transportation and Technology Impacts on Travel*

In September 2002, CDTC and CDRPC issued "*Pursuing Quality in the Capital Region"*, a draft discussion document to begin the regional dialogue. Some of the topics for discussion were: the current and future prospects for job growth, settlement patterns, government structure, migration patterns and community stability even apart from transportation issues. This was revised based on the comments received and finalized in April 2003. The Capital District chose the following definition of a Quality Region:

As defined, a region that fully achieves a "quality" status incorporates all of the positive attributes of the Capital Region and, at the same time, it addresses the identified weaknesses -- the disparities, the urban decline, the mixed success of suburban development. **The definition emphasizes the need for quality *throughout* the region and the need for ensuring that benefits extend to *all* residents.**[36]

The products of the Quality Region initiative would be woven into the policies of the *New Visions 2030* Regional Transportation Plan. Before the *2030 Plan* came to fruition, however, the CDTC again found itself up against the three-year federal Plan update requirement. In 2004, the CDTC adopted a *New Visions 2025 Amendment*. The *2025* amendment reaffirmed the existing *New Visions* goals, principles, strategies, actions and budget from the *New Visions 2021* plan and extended the planning horizon to 2025 to meet federal rules requiring the long range plan to cover at least 20 years. The amended Plan received a positive FHWA/FTA conformity determination.[37]

New Visions 2030 – New Visions for a Quality Region

New Visions 2030 represents the current stage in CDTC's continuing evolving approach that produces truly comprehensive and visionary plans In *New Visions 2030*, CDTC revisited and expand the in-depth examination of overarching topics for the Capital District that was the mark of the original *New Visions* plan. As noted above, particular attention was made of information gathered through the groundbreaking work of the Quality Initiative.

As with the original *New Visions* effort, Task Forces were crucial for exploration of data and attitudes. Three new task forces were identified:

- Quality Region Task Force: how can the region address strong local interest in aesthetics; explore the unresolved issues related to regional settlement patterns and their relationship to quality of life and "visionary" transportation investments. (Note: The Travel Task Force has now been folded into the Quality Region Task Force).
- Travel Futures Task Force: explore future demands on the transportation system.
- Finance Task Force: the funding needs of CDTC's plan.

In support of the effort were five working groups. The discussions surrounding the issue of regional development brought new players to the table. *A Regional Initiative to Support Empowerment* (see Title VI/EJ portion of this report), the Business/ Higher Education Roundtable and the Center for Economic Growth are some of the groups.

Alternative Development Scenarios

CDTC chose to analyze different scenarios of growth in order to test the impacts of growth. CDTC used the CDRPC to conduct an in depth analysis of the demographic distributions and land use patterns for four scenarios that was published in the 2005 CDRPT report *Effects of Alternate Development Scenarios in the Capital District*.[38] The report presented different population forecasts under two different scenarios (***Status Quo*** and ***Hyper Growth***), each having two different settlement patterns (***Trend*** and ***Concentrated Growth***):

1. ***Status Quo Trend-*** This is CDRPC's baseline forecast (9% growth in population, 15% growth in households by 2030, current development patterns continuing); this is the official Plan forecast, and it is considered the most likely scenario based on past trends; under this scenario, the Region will grow by approximately 73,000 people by 2030.
2. ***Concentrated Growth -*** This scenario assumes the above baseline growth rate, but with more concentrated development patterns resulting from urban reinvestment and suburban planning;
3. ***Trend Hyper-Growth-*** This scenario assumes "hyper-growth" (29% population growth and 35% household growth by 2030), with trend patterns of dispersed development; the rate of growth mirrors the national average of one percent per year; this scenario would forecast approximately a growth of 230,000 people by 2030.
4. ***Concentrated Hyper-Growth-*** This scenario assumes the above hyper-growth occurring in a concentrated pattern resulting from more urban reinvestment and suburban planning.

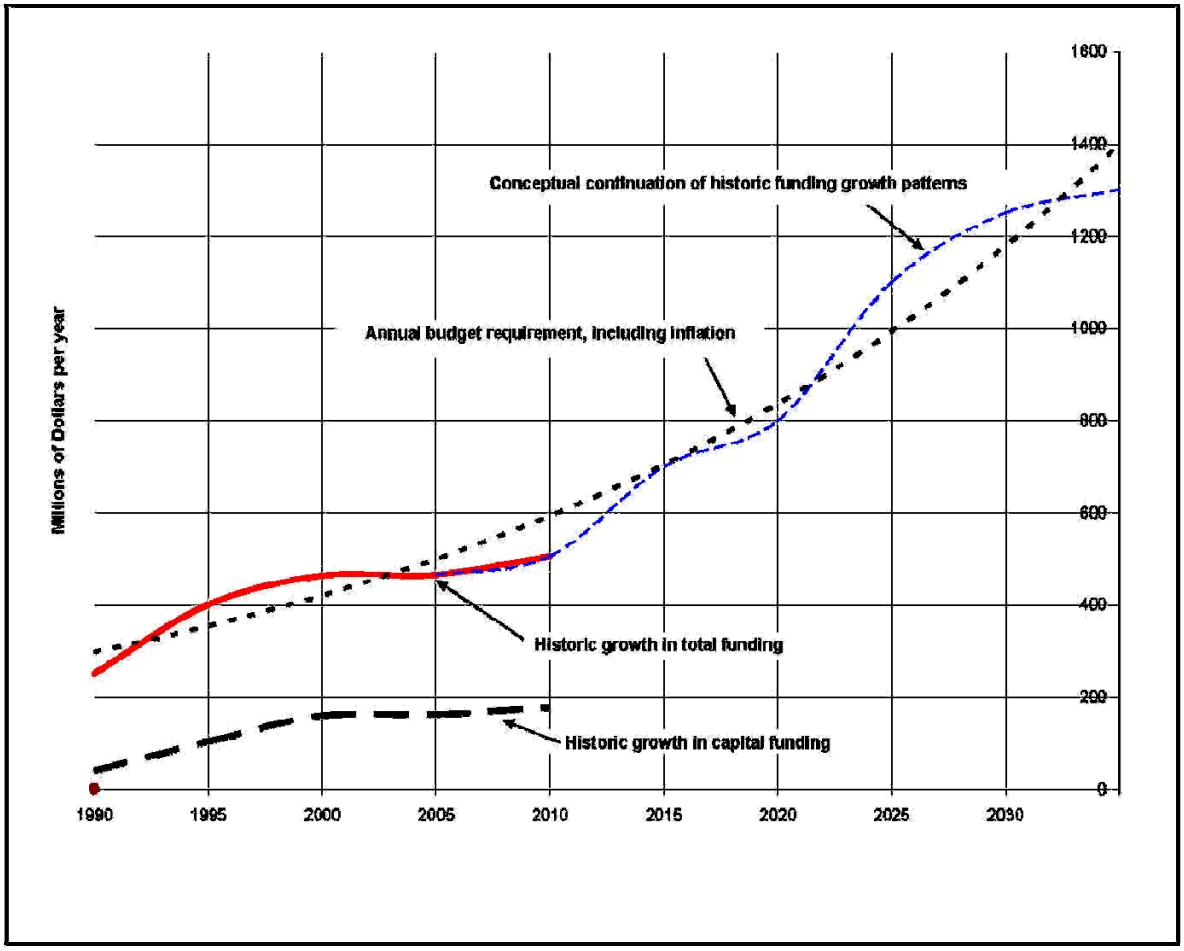
The ***Trend*** development pattern assumes the existing outward expansion into suburban and rural areas will continue as is does now; the ***Concentrated Growth*** development pattern considers the possibility of a more concentrated development pattern, including higher density in the inner suburban communities and an influx of people into the existing urban areas. Under any growth scenario, the positive benefits of concentrated development patterns are significant for the transportation system and for regional quality of life, and so the *New Visions 2030 Plan* supports and encourages concentrated development in the Capital District.

Following the demographic analysis of the four scenarios, CDTC then collaboratively worked with CEG, CDRPC, and the University of Albany to assess the fiscal impacts of the four regional growth scenarios.

Financial Forecast & Fiscal Constraint

Transportation plans are required to be fiscally constrained. This means that the plan includes sufficient financial information for demonstrating that projects in the plan can be implemented using committed, available, or *reasonably available* revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained.[39] An MPO, especially an MPO like CDTC that must conduct an air quality conformity analysis, cannot show actions or projects as "committed" if it is not reasonable to anticipate that revenues will be available to advance the actions or projects at the intended time.

The fiscal constraint requirement is intended to ensure that transportation Plans and TIPs reflect realistic assumptions about future revenues and project costs, rather than being lists that include many more projects than could realistically be completed with available revenues.



Given this basic purpose, compliance with the fiscal constraint requirements entails an analysis of revenues and costs. The basic question to be answered is: Will the revenues (Federal, State, local and private) identified in the Plan and TIP cover the anticipated costs of the projects included in the Plan or TIP, along with operation, maintenance and preservation of the existing system?

CDTC's approach to long range financial forecasting is distinctive. CDTC recognizes that projecting future transportation revenues is an imprecise science at best. Rather that trying to guess at the future levels of the individual funding pots (Federal, State and local), **CDTC tries to project the <u>total revenue pot</u> without necessarily identifying individual source contributions.** Growth in the total pot is much easier to anticipate than growth in only one area, such as federal transit funding. CDTC's estimation of future revenue is based on several reasonable assumptions: (a) the historic patterns of funding initiatives followed by funding lulls will continue; (b) funding to cover constantly-increasing unit costs of delivering services and maintaining facilities will be (eventually) secured; and (c) funding authorizers at local, state or federal levels will also include resources for modest system expansions or re-design.

Plan Investment Approach

CDTC's approach to investment decisions is grounded on the sobering realization that the common sense goals for the region could not be achieved over 20 years if traffic grows at

anticipated rates. This led CDTC's members to identify a *policy* target of lower future traffic levels compared to the trend and a commitment to invest heavily in local land use planning as the best chance to achieve these lower values.

The *New Visions 2030 Plan* has comprehensive, twenty-year budgets for the 17 project categories in the original *New Visions* plan adopted in 1997 (Table 4). These budgets were updated for the *New Visions 2021* plan but remained unchanged in the *New Visions 202*5 plan as a result of little detectable change in unit costs between 2000 and 2004.

For *2030*, however, new estimates were required for all 17 project categories to determine fiscal constraint because costs have changed dramatically in some categories in recent years, while federal and state funding has also increased. The new budget of $655 million for all public investment in transportation in the Capital District Region exceeds the previous estimate of $501 million by 30%. This is significant when one considers that the estimate of public investment growth has only been about 17%. CDTC believes that is unreasonable to conclude that there will be a permanent shortfall leading to continuous and dramatic declines in system condition and performance. The public does not tolerate system declines indefinitely.

As before, the budget is overwhelmingly dominated by system preservation – "state of good repair" categories. Highway and bridge operations, maintenance, rehab and reconstruction categories alone account for 73% of the annual budget requirement. The Plan does not commit to major system redesign or dramatic new services without the funds to support them. At the same time, CDTC's process calls for a reoccurring evaluation of Big Ticket items (next page).

Discretionary system expansion budgets are modest. The Plan reflects CDTC's *"steady progress"* principle – i.e.; until funding levels match the Plan's budget levels in real dollars, funding commitments can be made to individual projects across all project types but at a slower pace of implementation than in the financial plan. CDTC will continue to seek bike and pedestrian accommodations, intermodal improvements, transit service improvements, new system operations initiatives along with system preservation projects even while working with its partners to secure the necessary funding for full implementation. CDTC believes that it will not be

Table 4
***New Vision 2030* Budget Elements**

• Intermodal facilities	• Strategic Highway & Bridge Actions (CMP-based capacity)
• Transit Infrastructure	• Community/ Economic Projects
• Transit operations	• Supplemental goods movement
• ITS (Technology) and Traffic Infrastructure	• Supplemental bike/ped
• ITS (Technology) and Traffic Operations	• Supplemental arterial management
• Highway Rehab & Recon – Priority network	• Supplemental Safety actions
• Highway Rehab & Recon – Other	• Demand Management
• Bridge Rehab	• Integrated planning & outreach
• Highway & bridge maintenance	

possible to achieve long-term system objectives across all subject areas without making steady progress (at a pace affordable by current funding) in all subject areas over the next 30 years.

The projects and actions included in *New Visions 2030* can be funded based on CDTC's revenue projections as long as, over time, fiscal resources keep pace with inflation and travel growth. FHWA and FTA agree that the Plan is fiscally constrained given its reasonable assumption CDTC did not include any of the "Big Ticket" initiatives (see below) as committed because it determined that it is *not* reasonable to anticipate that resources will be in place to implement said initiatives at this time.

"Big Ticket" Initiatives

Similar to many recent MPO Plans, the *2030 Plan* makes no financial commitments to any new large scale projects in the out years. However, CDTC's approach to the consideration such large future expenditures is a best practice.

The typical MPO approach is to include such large scale unfunded projects in the Plan for informational purposes, with comments to the effect that they "should" be considered for funding if they become feasible in the future, with feasibility being defined as either more money or higher population density than is currently the expected trend.

CDTC's approach to such large scale, unfunded new projects is to consider them as part of a vision toward which the Region can strive. How is this different from what other MPOs call "illustrative" projects? They're different in what constitutes the "trigger" to move forward. These initiatives can be supported by CDTC's higher growth scenarios, yet they also could be pursued with the normal trend growth when the public supports the vision for other reasons and funding can be found. CTDC's approach to whether or not Big Ticket items should be pursued was to get broad-based agreement on how the regional vision was crafted.

CDTC began by looking at how and why big initiatives in other metro areas came to be. Seventeen big initiatives were initially reviewed, with an additional in depth review of six. CDTC concluded that the following regional conditions appear to be pre-requisites for such initiatives:

- A *sense of urgency* is typically present.
- The initiative reflects the sensibilities and community values of the region, producing a strong *community consensus*.

Big Ticket Initiatives:

CDTC's approach to such large scale, presently unfunded new projects is to consider them as part of a vision toward which the Region can strive.

"…CDTC's review of big projects and big programs in other regions reveals that these initiatives are not exclusively – perhaps not even primarily – related to cost-effectiveness. Rather they have a lot to do with the desire of elected officials, community leaders and the public to do something important with the transportation system"…

"Big Idea" Transportation Initiatives for the Capital Region, CDTC, July 2006

- A *champion* is typically a critical element as catalyst and sustainer of the initiative.
- Commitment to a major initiative is as much related to a *subjective rationale* as to objective analysis.
- Funding is achieved through a combination of local sources and state or federal funds – reflecting a *willingness to pay*.
- In the absence of the conditions to support big initiatives, it is difficult to attain comparable impact through incremental changes.

These realizations are not often part of the transportation planning process. For example, the fourth bullet acknowledges that a region or community may want to pursue an idea for *subjective* reasons, such as promoting economic growth, rather than pure *objective* reasons (e.g.; we can only purse light rail when a population density exists that would make it financially feasible). Such subjective considerations are common when considering a new convention center or sports stadium; the existing financial conditions may not be immediately present but a community (*champion)* decides that the economic growth attracted by such a facility would be overall benefit to the region and thus is *willing to pay* for the facility (the fifth bullet). The same subjective consideration should be afforded transportation initiatives.

With these pre-requisite considerations being acknowledged, CDTC's regional discussions and working groups looked at a variety of big ticket initiatives that were undertaken in other metro areas (see "Table 1" on page 41). These initiatives were scaled to the Capital District. The MPO concluded that not all the pre-requisites for big initiatives are present in the region - but this c\an change in the future.

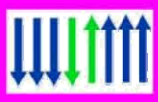
The key to this approach is that CDTC gained widespread agreement on both the pre-requisites that need to be present in order to pursue the big ticket initiatives and on the fact that the conditions did not presently exist. Now, CDTC will continually monitor the conditions through ongoing community discussions in various venues to see if the conditions via-a-vie the pre-requisites are changing.

CDTC plans to further explore a subset of big ticket initiatives under the 2008-10 UPWP. These will include initiatives for the transit system, building from the High Speed Rail Task Force study of rail transit options, or perhaps building on the alternative scenarios of the joint CDTC/CEG/ CDRPC/SUNYA study. Also CDTC wants to develop an appropriate approach to big ticket highway system ideas (managed lanes) in the context of Linkage studies and integrated corridor studies.

The Big Ticket initiative approach solves a major problem with the traditional planning approach – it enables discussion to continue in a respectful manner based on an agreed upon set of principles and vision. It crafts "permission" for ongoing discussions in the context of agreed-upon conditions that must be present before future consideration of any major project/idea. This approach creates a "safe" environment in which to discuss these large scale ideas as often as necessary, and it helps to reduce the "Yeh, but you're crazy if you think…" knee-jerk type reactions when such initiates are suggested for reconsideration.

The *New Vision 2030* Plan thus allows CDTC members and others to continually explore big ideas. This innovative approach of periodic review and discussion ensures that the Capital District maintains its vision during periods of financial constraint.

Table 1
Maximum Twenty-Year Scale of Hypothetical "Big Initiatives"
In the Capital District (Implementation between 2010 and 2030)

	Hypothetical "Big Initiative"	Approximate *Maximum* Twenty-year scale in the Capital District	Twenty-year cost estimate	Comments
	**Regional greenway program**	10 miles per year; 280 total including existing	$150 M	Scale reference is Seattle's plan for 800 miles of paths. Cost at approximately $500 K/mile based on local experience.
	**Riverfront access and urban development program**	Implementation of a majority of existing plans	$1,000 M	Could draw from multiple fund sources, not just transportation. If significant Interstate redesign is included, could approach $3 B - $4 B based on Boston's Central Artery precedent.
	**Street Reconstruction and Reconfiguration**	40 lane miles per year; 800 total	$2,400 M	New Visions intended to address 25 lane miles per year; this is 50% more aggressive. Cost at approximately $3 M per lane mile.
	**Roadway widening and connections program**	10-15 lane miles per year; 200 total	$1,000 M	Scale comparable to double the intended ten-year implementation in New Visions 2021 plan. Mix of modest ($2.5 M per lane mile) and costly ($7 M per lane mile) projects.
	**Major highway system construction**	Approx. 20-25 arterial and 5-10 lane miles of expressway annual	$3,000 M to $5,000 M	Not consistent with community values or public policy (such as the State Energy Plan, State Transportation Plan and the New Visions Plan).
	**Suburban town center development**	5-10 lane miles per year; 150 total	$175 M	Cost at approx. $1 M+ per lane mile as mix of access and collector roads. Developer-built or financed connections not included in the total.
	**Bus service expansion, BRT program with transit oriented development**	100 route miles total including NY 5	$200 M capital $400 M add'l oper.	Scale and cost estimated at 5-10 times that for NY 5 BRT.
	**Guideway transit system with transit-oriented development**	50 route miles guideway with 50 route miles of non-guideway BRT.	$2,100 M capital $1,450 M add'l oper.	Scale comparable to planned expansion in Portland over 20 years; capital cost of $40 M/mile derived from Portland, Phoenix, and Columbus plans. Operating cost estimated at $1.25 M/year per linear mile. Includes ½ of BRT non-guideway plan also.
	**Managed lane program**	50 route miles total with approx. 75 lane miles	$750 M $10 M operating	Scale at one or two lanes per center-line mile where physically feasible in Interstate system in Albany County, extensions north, east, west. Cost at $10 M per lane mile.

Hudson River Crossing Study

Similar to how *Linkage* helps permeate the regional vision to the local level, the new Integrated Transportation Corridor Effort will evaluate the major statewide corridor program relative to the Capital District. The Hudson River Crossing Study (HRCS) is the first of such efforts, recently completed in February 2008.[40] This effort hopefully will produce corridorwide recommedations with a multi-modal, operational, community-sensitive approach.

While not part of the New Visions planning effort per se, the HRCS demonstrates how New Visions principles infuse the planning process in the region. CDTC and NYSDOT initiated the HRCS to take a broad, initial look at transportation and multimodal mobility issues related to the Patroon Island Bridge and adjacent Hudson River crossings. The study includes an examination of the entire system of crossings under several possible future growth scenarios as defined in CDTC's New Visions 2030 document.

The CDTC was aware that the Patroon Island Bridge, a bridge of similar design to that of I-35 in Minneapolis, would soon need either rehabilitation or replacement. The HRCS created an opportunity to first take a broader look at transportation and mobility issues related to the bridge and other Hudson River crossings in the area through a unique collaboration between CDTC and NYSDOT; both agencies have identified the HRCS as a model for future major transportation projects.

The study included an examination of the entire system of bridges within the region under the four future growth scenarios as defined in CDTC's *New Visions 2030* document in order to forecast multimodal transportation needs and regional development opportunities. The team studied the bridge system's relationship to regional mobility from a multimodal perspective, including highway, transit, bicycle and pedestrian river crossing needs and reviewed traffic volumes and patterns on the Patroon, as well as other nearby crossings, in order to provide a view into the function of the whole system of bridges within the region and into their impacts on regional mobility.

Assessment of the short term major capital programmatic needs of a major rehabilitation or replacement of the Patroon Island Bridge provided CDTC and NYSDOT with a unique opportunity to join with key stakeholders in the region to take a broad look at transportation and mobility issues related to the bridge and to the adjacent Hudson River Crossings.

The following committees and groups were formed for the HRCS:

- **Steering Committee:** This committee included representatives of both CDTC and NYSDOT, and directed the Study.
- **Study Advisory Committee (SAC):** This committee was composed of government agencies that served as a conduit for sharing information on local issues that the Study should consider. The SAC members were responsible for outreach to constituents within their jurisdiction in order to advise them of the Study; solicit their input on local plans, needs and concerns for consideration, and apprise them of the Study's progress.
- **Stakeholders Group:** This group was comprised of elected officials and private organizations that should be kept informed about the progress of the Study. A newsletter was distributed three times during the course of the Study to keep the Stakeholders Group informed.

The future operations of the Patroon Island Bridge were evaluated using two models – the CDTC's regional STEP model and a micro-simulation VISSIM model that focused on the bridge and adjacent sections of I-90. The VISSIM model was developed specifically for this project. The traffic analysis indicates that widening of the Patroon Island Bridge is not necessary to provide reasonable traffic operation. Because all of the scenarios evaluated in this study resulted in this same conclusion, the risk of not providing sufficient capacity is very low. The amount of

delay that would be reduced by widening the bridge does not warrant the costly improvement of additional lanes. Widening of the Patroon Island Bridge could actually induce traffic that will create new bottlenecks elsewhere in the system, particularly at interchanges. The study concluded that ramp metering should be studied as a solution to the delays during the westbound morning peak hour.

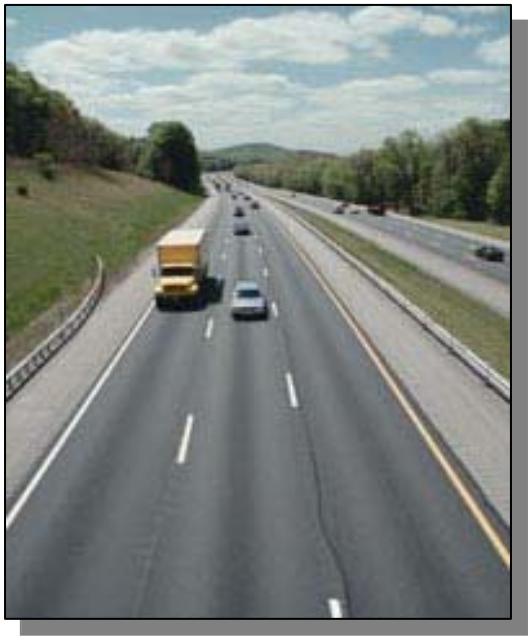
In summary, the HRCS incorporated consideration of CDTC's regional vision, four alternative growth scenarios, the CMP trade-off analysis and investment principles to come up with recommendations. NYSDOT will use the mobility and traffic findings from this study to help frame the scope of its upcoming major rehabilitation/replacement design effort on the Patroon Island Bridge. It's great when a Plan comes together!

Albany Corridor Study

The prime characteristic of CDTC's approach to decision making is the consensus buy-in of the participants following a full exploration of alternatives and adherence to the investment principles. Recommendations that come out of the *New Visions* process are well received because they are developed as part of an overall evaluation of regional needs as viewed through regional goals. During the 2004 FHWA/FTA Certification Review, there appeared to be somewhat of a movement away from this approach with the Thruway Authority's *Albany Corridor Study*.

The Corridor Study is from Interchanges 21A (Berkshire Connector) and 25A (Schenectady, I-88). *"The purpose of this study is to develop a prioritized Capital Improvement Plan to address structural, safety, capacity and operational needs for this portion of the Thruway over the next 20 years… it will identify improvements to meet increasing traffic demands and projects that could be developed independently."*[41] A Project Advisory Committee (PAC) was formed to provide input to the Project Team. The members of the PAC included representatives from agencies, cities, towns, counties and CDTC staff. CDTC staff conducted the traffic forecasts for this study, and the Project Team reported to the CDTC on a regular basis. Public hearings began in June 2003 and were still continuing, but the Authority was indicating that it anticipated the addition of a third lane in each direction plus additional projects[42].

The Corridor Study's initial approach to choosing a course of action differed significantly from the CDTC paradigm. The PAC was to provide very useful *advice* to the Project Team, but the engineering solutions selected by the Thruway need not be the consensus choices of all participants. The Study was essentially the historic approach to project development, the end product of which is usually a capacity project that comes fully developed to the MPO table with a request for funding.



The preliminary estimate of construction costs ranged between $300 to 400 million, most if not all of which would be Thruway money. Even if there might be no competition for federal funds at the MPO table to fund the project (i.e.; 100%

The Fundamental Nature of a good transportation planning process is apparent: Adopt Principles and Hold to Them!

Thruway monies), the Thruway's anticipated conclusion of an additional travel lane was needed would not have been the consensus choice of the MPO. When solutions to the congestion on the I-87 Northway, which is the heaviest congested corridor in the Capital District, were analyzed during the *New Visions* process, the consensus was not to pursue any significant physical expansion in the near term.

During the 2004 Certification Review, the federal agencies did not specifically criticize the Thruway for taking its approach; indeed, this is the traditional approach used in all other New York MPOs and in the vast majority of MPOs nationwide. We also recognized that the implementing agencies (Thruway Authority, NYSDOT, City of Albany, etc.) have the prerogative of how their respective projects come to the MPO table for consideration. Still, the FHWA/FTA review team considered the CDTC process to be singularly unique in its approach to comprehensive decision-making and we believed that the *New Vision* philosophy be encouraged whenever possible. Therefore, one of our 2004 review recommendations was that CDTC evaluate how the Thruway's Albany Corridor Study can best be folded into the overall CDTC philosophy of infrastructure and capacity investments.

We are gratified that the CDTC philosophy of consensus agreement to new capacity additions has apparently prevailed. CDTC properly affirmed in the TIP that federal approval of major actions, especially in air quality nonattainment areas, cannot be taken without those actions being consistent with CDTC's regional plan. The capacity alternative of an additional lane will apparently not be pursued – in keeping with the consensus Regional values.

The fundamental nature of a good transportation planning process is apparent: adopt principles and hold to them!

Larger than Regional Issues

One of the most informative pieces of research to come out of the *New Visions* process was the Working Group D's exploration of issues related to home rule in New York; the effects of the large number of municipalities in the state; the uneven playing field confronted by cities competing with suburban towns; sprawl without growth; the loss of farmland; local government planning; the plight of "inelastic", declining cities; and smart growth policies in other states.

The Capital District desires investment in the existing urban areas. Urban decline with suburban growth is not a tolerable future. However, the ability of cities to play a regionally-optimal role is challenged significantly by circumstances and by larger-than-regional policies that provide an *uneven playing field*. The vignette on the next page summarized this uneven playing field by looking at the costs to two commuters: Sam and Charlie and Sam. This portrayal is extremely insightful and revealing of realities we often overlook in planning, especially infrastructure renewal costs.

Next Steps

CDTC is not sitting on its laurels until the next Plan is due in four years. The MPO's next effort is to make the Plan's smart growth planning principles more integral to the culture of the Region by engaging the public with the Plan and its recommendations. CDTC plans to develop a *New Visions* Planning Guide to serve as a resource for local planners. The Guide will promote local consideration of the regional impacts of development in the planning and development review process. CDTC, together with CDRPC, also intends to develop a two-hour *New Visions* training program for community development directors, local planners neighborhood associations and other stakeholders in the region.. The focus will be on regional development initiatives contained in the Plan and how they can be applied at the local level. The training program will compliment the *New Visions* Planning Guide.

SAM AND CHARLIE

Living and Working on an Uneven Field

Structural Challenges to Capital Region Cities Trying to Compete

Sam attends the same church as his friend, Charlie. They generally shop at the same Walmart in Glenville and use the same dentist in Niskayuna. They attend Broadway touring company productions at Proctor's Theatre in Schenectady and in the summer go to the track once or twice together with their families. They are truly "regional residents", enjoying all that the Capital Region has to offer.

As it happens, Sam and his family live in the Rosa Road area of northeast Schenectady and he works at a firm in the 21st century office park in Clifton Park. Charlie lives in the western part of Clifton Park and works at Ellis Hospital in Schenectady. They frequently pass each other on the Rexford Bridge as they reverse each other's modest-distance commutes.

This is where the parallel nature of their lives ends. The heavy dependence in New York on local governments for the cost of public services creates an uneven playing field that affects residents and workers of differing communities in vastly different ways. Because Sam's house happens to be in the city of Schenectady and Charlie's house just three miles away is in the town of Clifton Park, their fiscal circumstances contrast significantly:

- When the Capital Region witnesses an increase in immigration of lower income residents from downstate New York, Sam's Schenectady County property taxes rise. Charlie's Saratoga County taxes do not.
- When the two families attend an event at Proctor's, Sam has paid taxes to provide (city) police and fire protection, Charlie has not.
- When there is a traffic accident outside Charlie's work place in Schenectady, Sam has paid taxes to provide a (city) police response; neither Charlie nor his employer have.
- When there is a traffic accident outside Sam's place of work in Clifton Park, Sam, Charlie and their employers have all shared in the (state) taxes to provide a State Police response.
- As Charlie drives down Union Street to his work place, he can thank Sam for paying to maintain the condition of the street and operate the signal system on the city-owned arterial.
- As Sam drives along NY 146 to his work place, he knows he has shared the cost of maintaining the condition of the street and signals on the state-owned arterial.
- On top of all this, Sam and his wife Sarah debate educational plans for their young children. They wonder whether they should spring for the funds for private school tuition because of the low rating of the city' s public schools –schools that are challenged in meeting educational achievement goals with a student body heavily populated with disadvantaged children.
- Charlie and his wife Cathy face no similar dilemma – their house is located in the highly-rated Niskayuna School District which serves children predominantly from households with incomes far above the regional average.

In short, Sam is required to contribute tax dollars to provide social services and public infrastructure for the general benefit of the entire region (service to poor residents and to non-profit institutions) to a far greater degree than does Charlie. As a result, Sam's personal finances suffer. His property tax annually totals $5,400 on his three-bedroom $100,000 house (whose value has only recently begun to recover from a ten-year decline.) Charlie can work and recreate in Schenectady while enjoying steady increases in property values (his similar, three-bedroom house is now appraised at over $175,000) and pay $2,000 less in property taxes than does Sam. Not all of the difference reflects differences in public service levels; in many cases the cost of regionally-serving services are borne disproportionately by Sam as a property owner in a city.

CDTC's Working Group D
Larger than Regional Policy Concepts - 2007

Public Involvement

"The MPO shall develop and use a documented participation plan that defines a process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.". 23 USC 450.316(a)

SAFETEA-LU requires that MPOs develop and utilize a participation plan. A participation plan shall be developed in consultation with all interested parties and shall provide that all interested parties have reasonable opportunities to comment on the contents of the transportation plan [49 USC 5303(i)(5)(B)(i) & (ii) and 23 USC 134(i)(5)(B)(i) & (ii)].

The plan, at a minimum, needs to describe explicit procedures, strategies, and desired outcomes for:

- Providing adequate public notice of public participation activities and time for public review and comment at key decision points, including but not limited to a reasonable opportunity to comment on the proposed metropolitan transportation plan and the TIP;
- Providing timely notice and reasonable access to information about transportation issues and processes;
- Employing visualization techniques to describe metropolitan transportation plans and TIPs;
- Making public information (technical information and meeting notices) available in electronically accessible formats and means, such as the World Wide Web;
- Holding any public meetings at convenient and accessible locations and times;
- Demonstrating explicit consideration and response to public input received during the development of the metropolitan transportation plan and the TIP;
- Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services;
- Providing an additional opportunity for public comment, if the final metropolitan transportation plan or TIP differs significantly from the version that was made available for public comment by the MPO and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts;
- Coordinating with the statewide transportation planning public involvement and consultation processes; and

- Periodically reviewing the effectiveness of the procedures and strategies contained in the participation plan to ensure a full and open participation process.

In June 2007, the CDTC adopted a Public Participation Policy to guide all of their planning projects, policies, and strategies in response to the SAFETEA-LU requirements. This policy updates and improves upon CDTC previous Public Involvement Policy adopted in 1994. In truth, this policy incorporates all of the lessons that CDTC has learned and utilized in public involvement efforts since 1994. It formalizes how CDTC incorporates public involvement into all of their MPO activities. Among the items discussed in the Public Participation Policy are: policy guidelines, a definition of reasonable access to technical information, the MPO's public participation methods, responding to comments, special efforts to reach underserved populations, and evaluating effectiveness. The CDTC sees public participation as an ongoing, interactive, and dynamic process.

Policy Guidelines

The CDTC believes that public participation should occur before major decisions or policies are made. The CDTC recognizes that an informed public can participate and add value to the planning process because they are the experts on their community. The revised CDTC policy identifies the following guidelines to define public participation:[43]

- Builds public knowledge about the process and issues;
- Identifies public concerns and values;
- Gathers information, develops consensus, resolves conflict, and leads to better decisions;
- Gains the fresh perspectives of empowered citizens which can lead to creative approaches;
- Enhances the accountability of government decisions;
- Reduces the accountability of

CDTC"s Public Participation Intent and Practice

"At CDTC, the intent and practice is to conduct an open and accessible planning process that:

- *Often exceeds federal, state and local requirements;*
- *is proactive and creative;*
- *uses a variety of mechanisms to solicit participation and involvement;*
- *has input opportunities early in the development of major documents;*
- *provides for continuing involvement of local officials, individuals and representative community goals in specific CDTC studies, plans, and programs through their completion and implementation;*
- *has on-going communication between technical staff and the community at large through clearly written and accessible reports and publications and well established Task Forces;*
- *includes education as a key component to facilitate active and informed participation;*
- *ensures that the views of those traditionally underserved by transportation and their organizations are solicited;*
- *uses the world wide web and other media to reach the widest possible audience; and*
- *provides timely, clear, accurate, and complete information and sufficient response times."*

CDTC Public Participation Policy, June 2007

government decisions;

- Reduces later delays and costs from not having involved the public; and
- Builds trust and partnerships.

Incorporating the eight items above into the planning process has enabled CDTC to gain credibility and trust with the public in the planning process. As cited in previous certification reviews, CDTC has a dynamic and evolving public participation process that is tailored to the level, frequency, and flexibility required for a plan, task force, or policy initiative. The CDTC has set as one of its goals to ensure that all persons, regardless of race, color, religion, income status, national origin, age, gender, disability, martial status, or political affiliation have an equal opportunity to participate or comment on the MPO's planning processes. The CDTC's policy in terms of public participation is to conduct an open and accessible planning process that:

Access to Documents

The CDTC has set up guidelines to provide "reasonable access" to technical documents and plans created at major milestones. However, these guidelines do not apply to the *Linkage Program)*, which has separate criteria that are published in its annual solicitation. This "reasonable access" guidance defined in the Public Participation Plan and is part of CDTC's commitment to enhance accountability of government while building trust with the public. The public will have consistent access to CDTC technical documents and be informed of planning processes through the following:[44]

- Utilizing the World Wide Web to display and advertise any project, plan or program materials for public access.
- Use of Geographic Information Systems to add visualization and graphic content to plans and documents;
- Mailing to a full list of known interested parties of the availability of documents and processes including a deadline for public comments;
- Press releases or public service announcements in the major media to the general public of the availability of the document or plans;
- The deadlines being far enough in the future (30 to 60 days) to allow for reasonable time for thorough review;
- Placement of the document in public libraries in the affected geographic area at the very beginning of the review period;
- Designation of an informed and available staff person to answer inquiries;
- When available, a summary document in accessible formats will be provided (free of charge) to anyone that requests it; and
- Provision of the full document or plan (printing and/or postage charges may apply) to anyone that requests it.

Public Participation Methods

The CDTC uses many methods to interact with the public in their MPO program such as the CDTC Policy Board meetings, Planning Committee, task forces, website, press releases, meetings and presentations, and surveys. We would like to highlight the following examples of CDTC's innovative work:

Community and Transportation Linkage Planning Program

All of CDTC's Linkage Program studies provide a level of public involvement. *Linkage Program* studies have different levels of participation including an advisory committee convened jointly between CDTC and the study sponsor. The committee is made up of one staff member from CDTC, CDRPC, NYSDOT, CDTA, and representative(s) from the county(ies) and local community(ies) where the study is located. Members of the

public can also participate in advisory committee meetings.

Public involvement during *Linkage Program* studies included a minimum of two formal public participation opportunities in the process. Outreach efforts also include charrettes, workshops, surveys, neighborhood meetings, etc. The type and extent of public involvement can vary depending upon the individual requirements of a community. For example the NY7/NY2 Corridor Transportation and Land Use Study, December 2005 was a collaborative process involving ten advisory committee members consisting of representatives from the Town of Colonie Planning and Economic Development Department and Department of Public Works, Albany County, CDTC, CDTA, NYSDOT Region 1, and representatives from the business community and neighborhood. Four public workshops and fifteen advisory committee meetings were held to build consensus for the study (as described page 73).

World Wide Web

In the 2004 Certification Review, we recommended that CDTC consider revamping it's website to a more visual format. We are pleased to see that the website's opening screen has been updated as recommended. The layout of the opening page offers the contact information, a vertical list at the top of program areas (such as TIP, UPWP, etc.), a box on the left with specific programs (such as Policy Board, Newsletter, etc.), and scrolling text in the center featuring major items or initiates indexed by date with the most recent at the top. The website is: http://www.cdtcmpo.org/index.html

During the review, Mr. Poorman noted that CDTC was incorporating usage of the website and email to distribute planning information. Moreover, CDTC has begun to limit mass mailings of large documents because those documents are now available on the website. Mr. Poorman also noted that CDTC will now post information in the website prior to an MPO action. We are please to note that most of the information we required for this certification review was easy to find and readily available on the CDTC website.

One issue discussed during the review was that the TIP information on the CDTC website can be confusing between the relationship of MPO's TIP number and NYSDOT's STIP number. In response, CDTA has pledged to review the TIP portion of the website CDTA has improved the usability of its website over the last four years

Newsletter

In the 2004 Certification Review we recommended that CDTC reconsider the usefulness of publishing a newsletter to inform the public of the MPO's activities. We were pleased to see that CDTC launched a new newsletter in the spring of 2008 called "*In Motion*" to inform and provide information on the MPO's activities in the Capital District region. The newsletter will be published quarterly and is also available online at http:cdmpo.org/newsletter.htm.

Commuter Register

CDTC publishes the *Commuter Register*, a web-based and telephone-based service. It allows people to advertise for free for a carpool. Information about the potential carpooler's general home location, work location, hours of work and rideshare preferences is published in a carpool "listing". The *Commuter Register* also allows you to advertise for **free** for a carpool, find others who are interested in carpooling, and find out information about bus schedules and fares and park and ride lot locations. The Register is available on-line (http://www.commuter-register.org/).

CDTC is now redesigning the *Commuter Register* through the services of GreenRide.[45] Carpool matches will be displayed in a map format, and enroute matching will be accommodated. Transit options will also be displayed. In addition, for marketing purposes, the *Commuter Register* will be re-branded to fit with CDTA's "iride" campaign.

The former *Commuter Register* will be branded "ipool". Users will be able to go to www.ipool.com to access what is currently the *Commuter Register*. A marketing campaign will soon follow. Once fully rolled-out, the *Commuter Register* will probably be renamed IPOOL2.

Outreach during Plan Development

A good example of CDTC's public involvement extensive outreach is the effort use in conjunction with the development of *New Visions* plans. Traditionally, regional systems' planning is the planning element most resistant to meaningful citizen participation. The issues are generally seen as highly technical, abstract, too long range to be of much concern and remote from the direct experience of the average layperson. By definition, regional planning must be concerned with large geographic areas, often encompassing numerous municipalities and counties, and it is difficult to engage in dialogue with individuals or groups over such great distances. CDTC put citizen and community input at the forefront of the1997 *New Visions* effort. Approximately 50 public outreach meetings and two major conferences were held. CDTC formed nine focused task forces in the *New Visions* efforts, allowing input from 100 individuals from the general public, business groups, environmental/ interest groups, transportation-disadvantaged groups and communities. The *New Visions* effort also included an urban issues task force and outreach to the minority community (Urban League) to include minority concerns in the planning process.

SUNY NY Annual Survey

Since 1997, CDTC has periodically utilized the services of the State University of New York at Albany's Center for Social and Demographic Analysis. The Center conducts annual surveys regarding citizen attitudes regarding job prospects, general well being, consume confidence and similar topics. Demographic information is collected on sex, age, race, marital status, number of children, household size, number of children in the household who are under eighteen, county of residence, community type, education, employment status and household income. The Center invites other agencies to sponsor questions as add-ons to their basic survey. CDTC has added questions regarding topics such as how congestion affects your life, the quality of the highway system, the quality of the transit system, and so on. The Center conducts a telephone interview of approximately 500 households from the Capital District each February. CDTC uses the survey as a gauge of the success of the planning, programming and project development efforts in the region.[46]

Outreach to the Business Community

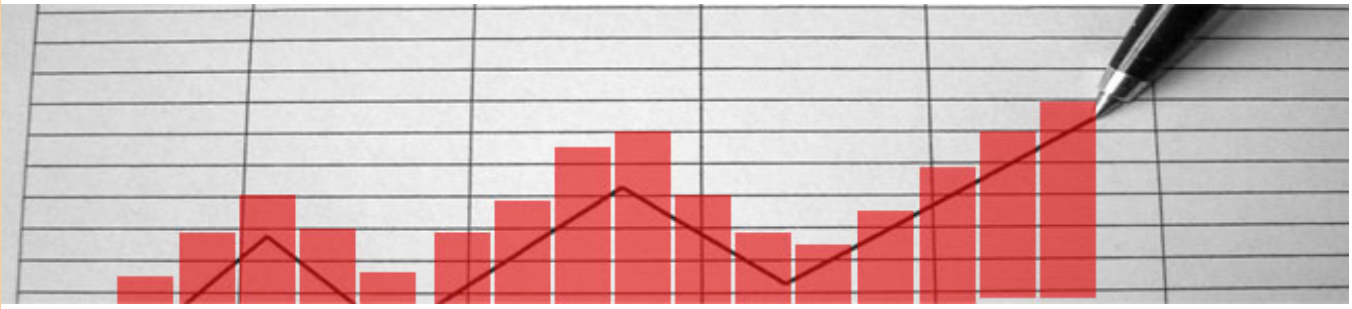
CDTC has been involved in with the Center for Economic Growth (CEG) in discussions regarding transportation and business growth, especially in regard to the micro-technology industry. CEG is a not-for-profit organization developed in 1987 to provide an educational and informational forum for the chief executives of small and medium sized manufacturing businesses in the Capital Region. CEG offers the collective knowledge and expertise of its members for organizational and professional growth.

Outreach to Disadvantaged and Minority Communities

This is discussed in the *Title VI/Environmental Justice* section of this report.

Recommendation

- The CDTC should work to clarify the relationship between TIP and STIP information on their website.



Transportation Improvement Program

"The MPO, in cooperation with the State(s) and any affected public transportation operator(s), shall develop a TIP for the metropolitan planning area. The TIP shall cover a period of no less than four years, be updated at least every four years, and be approved by the MPO and the Governor." 23 CFR §450.324(a)

One of CDTC's most important responsibilities is the development of a multi-year program of transportation improvements that implement recommendations of the planning process, particularly those in the *New Visions Plan*. This program of projects is the Transportation Improvement Program (TIP).

The TIP identifies the timing and funding of all highway, bridge, transit, bicycle, and pedestrian transportation projects scheduled for implementation over a five-year period using FHWA or FTA funding, and it also estimates said implementation's effect on Regional air quality. Federal regulations require that these projects be included on the TIP in order to be eligible for federal funding. The TIP also includes, for informational purposes, non-federally funded projects, including 100% State funded projects (NYSDOT and New York State Thruway Authority) in the region. The CDTC TIP for 2007-2012, adopted by CDTC in June 2007, lists approximately $800 million in Federally-aided transportation projects.

There are certain federal requirements of the TIP document:

- Covers at least four years
- Updated at least every four years
- Consistent with approved Transportation Plan
- Conforms to air quality requirements
- Identifies each project
- Financially constrained by year; each project has an estimate of total costs and the amount of federal funds, state, and/or local matching funds
- Cost estimates are based on Year of Expenditure dollars, not current year dollars
- Identifies the responsible party for project implementation
- Approved by MPO and Governor
- Modifications during the year are subject to appropriate project selection procedures

Fortunately, transportation investment has broad support in the Capital District area. It has been a non-partisan issue with bi-partisan support, and there are usually no significant disagreements over project selections.

TIP Investment Principles

CDTC's choice of what projects to place on the TIP is guided by several exceptional policy decisions that were agreed upon in the *New Visions*

plan. CDTC has adopted *"31 Planning & Investment Principles"* which maintain integrity, equity and objectivity while building credibility (See Appendix B).

TIP programming choices are guided by the *New Vision 2030 Plan*. The Plan contains budgets for 17 project categories, allowing the program to reflect the balance (and Asset Management emphasis) of the Plan. Thus, there is a solid connection between the Plan and the TIP. Some of the foremost principles are:

- **Transportation investment is to be based on function and need, not upon facility ownership**. Under this policy, all member agencies agreed to put all funds (NHS, CMAQ, STP) on the table; the best projects are selected according to CDTC investment strategy, and then money is assigned. Thus, the CDTC approach to transporting funding is "jurisdictionally blind". Agencies honor commitments to coordinate; if an agency has an internal disagreement, they work it out in a way that honors commitments

This is noticeably different than how most MPOs approach the TIP or RTP: normally, Federal fund type determines project selection (e.g., State-owned facilities compete against themselves for NHS funding, and the locally owned facilities compete against each other for STP funding).

The *New Visions 2030 Plan* lays out a performance-based management strategy (e.g., painting bridges before they corrode, building more durable pavements, matching design treatment to road function rather than ownership or funding category). CDTC also uses both "core" performance measures relating to aggregate system performance (e.g., extent of congestion) and "supplemental" performance measures relating to specific elements of the system (e.g., percentage of Interstate highway pavement in poor physical condition). CDTC's performance measures have been recognized as a prototype for improved processes elsewhere and have been the subject of several case studies.

- **CDTC carefully defined the phrase "system preservation".** System preservation is defined in terms of **maintaining existing facilities at the current conditions**. The Plan drew a figurative 1996 "line in the sand" regarding the condition and benefits of the transportation system. CDTC required the Plan to maintain or improve the overall transportation service quality from 1996 conditions and enhance the quality of life in the region; it was to reduce per-capita resource requirements related to provision, operation, use and mitigation of the impacts of the transportation system from 1996 per-capita costs - especially in reducing the total costs of accidents (crashes). Capacity and safety improvements and design upgrades carried out in conjunction with facility renewal (e.g.; adding turn lanes, widening shoulders, sidewalk construction, etc.) are considered *discretionary* improvements and are considered separately in the plan, similar to stand-alone capacity, safety, or bike/pedestrian actions.

- **CDTC will maintain an informed balance in transportation investments**. This was a shift from heavy emphasis on routine pavement, bridge and bus renewal and congestion mitigation to a carefully-structured balance among these traditional efforts and actions focused on travel safety, economic development and community enhancement, arterial management, bike and pedestrian accommodation, transit redesign and similar subjects. The plan establishes a policy that, after system preservation needs are met, steady progress across all improvement categories shall be made. That is, steady progress is possible at all times – at faster rate if funding is higher, slower if it is lower comparable progress, and it will be pursued across-the-board in 17 budget categories. If necessary, CDTC will steer funds to certain categories to ensure a balanced investment program in the TIP. This same approach is taken with transit, where system preservation needs are

defined in terms of maintaining the existing fleet and other equipment/facilities at current size and condition. Upgrades and expansions are treated as improvements. Funding priority is assigned to preservation, and transit improvements are advanced along with other desired improvements as funding permits.

- **The Plan gives priority treatment to urban revitalization needs**. Revitalization of existing urban areas is critical to achieve the desired outcome of the regional transportation plan. One of the 17 budget categories in the plan is "economic development / community compatibility". The jurisdiction-blind funding policies have steered considerable resources to reconstructing and redesigning urban streets explicitly to facilitate economic revival.

CDTC's approach to funding projects has resulted in:

- Equal access to funding based on need, rather than ownership
- A shift away from large-scale capacity projects
- A shift to a balanced set of projects with significant impact
- Rapid implementation of ITS, transit, bike/ped and other components of the plan
- Results that reflect the comprehensive principles of the *New Visions* plan

The success of CDTC's approach comes out of the agreements reached in *New Visions* Plan. When you can get buy-in on an abstract concept at the regional level, you can then more easily apply it when a real world situation comes up locally (e.g.; "you've agreed that X is a good idea…"

Get buy-in on abstract concept at the regional level & then apply it when a real world situation comes up.

CDTC's TIP Development Process

Putting the TIP together is a little science and a little art. The CDTC has developed a very sensible process for soliciting, evaluating and subsequently placing highway projects into the TIP. Project selection for dedicated transit funds are considered separately.

1. Establish Available Funding

Available highway resources were estimated in cooperation with NYSDOT Region One and, to a lesser extent, with AGFTC. This was the first TIP funded only from the federal SAFETEA-LU legislation. NYSDOT Main Office provided the Regions with regional allocations based on federal apportionment levels. Region One and CDTC staff each produced proposed allocations for the CDTC area. For the second TIP update in a row, Region One's proposed CDTC allocations were, in aggregate, close to the amount determined by CDTC's historic approach. Therefore, allocations proposed by Region One were used. Also, for the second TIP update in a row, IM and HBRR funds were not estimated for CDTC because they were programmed at a NYSDOT Region One level rather than at an MPO level. It is CDTC's understanding that the final TIP reflects reconciliation of resource estimates for the CDTC's area with those for the balance of the eight-county, and later, ten-county, NYSDOT Region One.

Available transit funds were obtained from the Federal Register (February 3, 2006). For the period within the TIP for which SAFETEA-LU will be in effect (2005-09), appropriated funds were used. For the period outside SAFETEA-LU legislation (2009-12), the funds from the year before were increased by the average percentage increase from the 2005-09 period (6.633%). This results in a total of about $74M for the five-year TIP programming period.

2, Solicitation for Candidate Projects

Normally, CDTC sends letters of notification to the chief elected officials throughout the Capital District, informing them of the commencement of the process to develop a new TIP. This is done nine months prior to Policy Committee approval. Other agencies in the Capital District that are capable of sponsoring transportation projects (e.g., New York Thruway Authority, private railroads, etc.) also received notification letters. Applications are submitted as Project Justification Packages (CDTC's template for providing project information).

For the 2007-2012 TIP, CDTC solicited additional projects only for the specified transportation funding set-asides to help address needs in the specific project types cited in the solicitation notice.[47] For each of the set-asides there were specific program requirements and evaluation criteria. The details for each of these set-asides including application information could be found on a website link.

3. Screening

After receiving the Project Justification Packages, CDTC employs a screening process to determine whether or not certain established requirements for inclusion in the TIP are met. As described in the TIP[48], the screening criteria are:

- Consistency with federal transportation planning factors, CDTC's plans, and local land use plans
- Ability to provide local matching funds
- Well defined project scope and timing
- Meeting an identified need
- Federal-aid eligibility

4. Merit Evaluation

The merits of every project are then evaluated both quantitatively and qualitatively, with the information summarized on a one-page Project Fact Sheet. The quantitative information reflects financial benefits of the project described as benefit/cost ratios ($/year) in the categories of safety (accident reductions), travel time[49], energy/user costs, life cycle value[50], and "other benefits".[51] The sum of these five categories divided by the annualized total benefit/cost of the project is the project's total benefit/cost ratio.

Note that CDTC includes a "life cycle" factor in its evaluation. It is often difficult for evaluate the merits of rehabilitating or replacing pavement or bridges in-kind. CDTC, however, models the system wide difference in user costs between having the facility in good condition and having the facility in nearly impassable condition (or for bridges, having the bridge closed). The system wide impacts are then pro-rated based on the number of years of extended life provided by the project (compared to the total facility life).

The substantial portion of the space on the Project Fact Sheet is set aside for reporting a project's additional impacts (pro and con). This information, mostly supplied by the project sponsor, describes how the project will contribute to advancing the goals and implementing the strategies identified in *New Visions*. Some of these impacts can be estimated (e.g., reductions in VOC emission, reduction in daily excess person hours of delay) and some only described (compatibility with local land use plans, contribution to economic development, benefits to bicycling, etc.)

Complications in 2007-12 TIP Development

During the public review period in the 2007-12 TIP Update, there were two notable complications: 1) State Budget Cap for local federal-aid projects, and 2) NYSDOT's request to use Advance Construction provision to add to STP-Flex projects to the TIP.

The State Budget placed a "cap" on the annual amount of Federal-aid funding that can be used on local projects. Since the Federal-aid highway

program is a first-instancing program (NYS must first reimburse the contractor for construction activity before it can request reimbursement from FHWA), the State legislature established a line item specifying an upper limit of said activity for local projects. This caused the MPO to restructure the TIP project schedules to comply with what was being interpreted as a fined amount for local projects in any year; State projects were not impacted and indeed were even more likely to progress projects since non-State projects were limited. This caused some understandable consternation among the local entities because, in effect, the legislature was determining the split of Federal-aid between state and local projects.

In itself, this line item cap would not be an issue if it could be revised as circumstances warrant; however, it is treated as a fixed maximum, and some could interpret it as violating the provision of 23 CFR 450 that reads:

> *"Procedures or agreements that distribute suballocated Surface Transportation Program funds or funds under 49 U.S.C. 5307 to individual jurisdictions or modes within the MPA by pre-determined percentages or formulas are inconsistent with the legislative provisions that require the MPO, in cooperation with the State and the public transportation operator, to develop a prioritized and financially constrained TIP and shall not be used unless they can be clearly shown to be based on considerations required to be addressed as part of the metropolitan transportation planning process."* [52]

This is not just a CDTC issue, as it affects all MPOs. FHWA will take this up in discussions with NYSDOT.

The second complication was a NYSDOT request to switch the funding on some of 100% State Dedicated Fund (SDF) program projects to the FHWA STP-Flex funding; because of fiscal constraint, this switch could not be made unless NYSDOT used Advance Construction provisions to get around the lack of funding available in that year of the TIP. This engendered dismay among other CDTC member agencies, as they did not have a similar opportunity to advance their projects and thus these State projects were not competitively chosen according to CDTC's core principle that funding is jurisdictional neutral. As a gracious compromise within the CDTC, these projects were evaluated according to CDTC's Merit Evaluation procedure, passed, and both projects were then added to the TIP. However, the projects were added with the following understandings:

(1.) It is the intent of CDTC that this be the final occurrence of federal funding being made available solely for the projects of one sponsor.

(2.) CDTC will submit its strong concerns on the conflict between CDTC's principles and New York State's use of advance construction funding to cover shortfalls in SDF funding for state projects.

Over the five year period, the total FHWA and FTA funding is $377.4 million, which is underprogrammed by $30 million compared to available resources. The TIP received a positive FHWA/FTA air quality conformity determination on October 25, 2007. Please see page 57 for a discussion of fiscal complications within New York that affect CDTC.

Fiscal Constraint

Federal regulations require that the TIP include a financial plan and that it be fiscally constrained by year. The financial plan is to be developed by the MPO in cooperation with the State and transit operator.[53]

The TIP's fiscal picture is coordinated with the development of the NYSDOT Region One program of projects. The total Regional program of projects is a compilation of the programs in the urban and rural parts of the Region. Region One covers two MPOs (Albany and Glens Falls) and several rural counties.[54] At the beginning of the

program cycle, each NYSDOT Region receives a target-funding amount (Federal plus State funds) from the NYSDOT Main Office to clarify how much funding will be available. Each Region then proceeds to inform the MPOs and counties of their individual targets, and it then negotiates with the MPOs and rural counties to identify the best mix of projects with funds available.

Prior to developing the current TIP, available highway resources were estimated in cooperation with NYSDOT Region One and, to a lesser extent, with AGFTC. After receiving the regional allocation from the Main Office, the Region One office and CDTC staff each produced proposed allocations for the CDTC area. Region One's proposed CDTC allocations were, in aggregate, close to the amount determined by CDTC's historic approach. Therefore, allocations proposed by Region One were used. Available transit funds were obtained from the February 3, 2006 Federal Register.

While CDTC staff is very astute in developing its estimates of resources available, as is NYSDOT Region One, the intent in the regulations regarding a mutually-developed financial plan is not yet realized:

> *"The TIP shall include a financial plan that demonstrates how the approved TIP can be implemented, indicates resources from public and private sources that are reasonably expected to be made available to carry out the TIP, and recommends any additional financing strategies for needed projects and programs. In developing the TIP, the MPO, State(s), and public transportation operator(s) shall cooperatively develop estimates of funds that are reasonably expected to be available to support TIP implementation, in accordance with § 450.314(a)."*[55]

NYSDOT, CDTA and the MPO need to cooperatively develop a financial plan (budget) during the TIP development process. Furthermore, the process for developing and agreeing on said financial plan must be included in an updated Prospectus (discussed on page 14). The Federal regulation requires that the written agreement of how the process is conducted…

> *"…shall include specific provisions for cooperatively developing and sharing information related to the development of financial plans that support the metropolitan transportation plan."* [56]

Relationship to Transportation Plan

As noted previously, CDTC's TIP is closely aligned to the goals and objectives of the *New Visions Plan*. The TIP fits with the investment strategies enumerated in the *New Visions 2030* Plan's Budget. CDTC uses the plan's principles and strategies to guide the screening of TIP candidates. Furthermore, the seventeen budget categories in the Plan play a central role in prioritizing candidate projects for funding.

Amendments and Project Selection

Project selection is a process for advancing projects to implementation from the approved TIP, either in the first year as an "agreed to" list or in later years as a means of moving projects from year to year. Selection is essentially a joint activity involving the State, MPO and the transit operator, since all agencies are affected by the actions of one another. Language was incorporated into the implementing regulations allowing for the simplified movement of projects in the second, third or fourth year of the TIP to the first year subject to procedures agreed to by the cooperating parties.[57] CDTC's current project selection procedure is its *Guidelines for TIP Changes*..

The February 14, 2007 *Metropolitan Transportation Planning Final Rule* made a significant but often overlooked change regarding TIP amendment actions. The regulations now contain a definition of what constitutes a "Major Amendment" and an "Administrative Adjustment".

- An *Administrative modification* means a minor revision to a long-range statewide or metropolitan transportation plan or TIP that includes minor changes to project/project phase costs, minor changes to funding sources of previously-included projects, and minor changes to project/project phase initiation dates. An administrative modification is a revision that does *not* require public review and comment, redemonstration of fiscal constraint, or a conformity determination (in nonattainment and maintenance areas).

- *Amendment* means a revision to a long-range statewide or metropolitan transportation plan or TIP that involves a major change to a project included in a metropolitan transportation plan, TIP, or STIP, including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes). An amendment is a revision that *requires* public review and comment, redemonstration of fiscal constraint, or a conformity determination (for metropolitan transportation plans and TIPs involving ''non-exempt'' projects in nonattainment and maintenance areas). In the context of a long-range statewide transportation plan, an amendment is a revision approved by the State in accordance with its public involvement process."

During the certification site visit, CDTC's current *Guidelines for TIP Changes* was discussed. It was agreed that the column showing actions that needed Policy Board approval would constitute an Amendment under the new definition, thus requiring a redemonstration of fiscal constraint and needing public review and comment period. Actions listed in the other two columns of would be administrative adjustments not needing a specific redemonstration of fiscal constraint and a public review and comment period.

It was recommended that the MPO evaluate the *Guidelines* to address a "toll credit" action, whereby the State wants to change the Federal share on a project to 100%.[58]

Fiscal Constraint Complications

Subsequent to the adoption of the TIPs in all MPOs, it became apparent that the target amounts identified to the Regional Offices significantly exceeded the amount of monies actual available for programming in the years of the TIP. The amount of money (on the highway side) that can be programmed in any year is based on FHWA's obligational authority available for that year, which normally runs about 10% below the Federal authorized levels. Federal guidance is that the MPOs may use appropriation levels for the purpose of developing the TIP; a modest overprogramming of projects is acceptable because not all projects will proceed to implementation when expected for numerous reasons (e.g; slippage

in a project's schedule due to unforeseen design, right-of-way or environmental issues). However, we have discovered that the targeted amounts given to the Regions (i.e.; the amounts that MPOs use for TIP development purposes) have not been realistic of late.

In addition to the MPOs having used overly optimistic levels of available funding, "rollover" has complicated the fiscal picture. When TIPs are developed in April-May, MPOs have to estimate which projects in the then-current TIP will go to implementation by October 1st; those expected to progress are not included in the first year of the developing TIP. Not being cloaked with total knowledge of the future, there will normally be projects that do not go as expected. Projects that were expected to proceed - but did not - are "rolled-over" into the next year of the TIP at the beginning of the new program year. The number of projects and costs thereof in the new TIP has thus increased by the rollover amount – unless an MPO purposely pushes out projects to a future year to realign the funding balances to reflect the realistic amounts that are available for that year. Unless corrected, the accumulated difference between FHWA obligational authority – the level of funding that may actually be used in a year – and the funding levels shown in the TIP as expected to be available in that year grows each year.

Most MPOs have a clause in their TIP approval resolution to the effect that projects listed in the committed column of the TIP are automatically incorporated into the first year element of the new TIP if the projects are not obligated by September 30. CDTC astutely adds a significant caveat to the wording of the rollover clause: *"…as long as fiscal constraint is demonstrated."*[59]

CDTC helps to address rollover issue in its own TIP with the use of a seven-year budget for its TIP (2 committed + 5 new). The date of 10/1/05 was as a firm starting point for calculating revenues and expenditures for the 2007-2012 TIP. Projects in the committed column in the new TIP are treated as projects in other years when it comes to schedule shifts and the right to use obligational authority.

CDTC is one of thirteen MPOs in New York and its TIP is included in the Statewide Transportation Improvement Program (STIP), which is made of the MPO TIPs plus the program of projects in rural areas. In spite of CDTC's caution, not all the other MPOs were as cautious, and the total amount of projects included on the STIP has become unbalanced when compared to the level of funding actually available to implement said projects. This affects the ability to implement projects in all MPOs.

This year's STIP (FFY 2008-2011) shows that the current year (FFY 2008) as being 40% over-programmed. When MPOs then ask to rollover projects those on the previous TIPs but not implemented into the new STIP, it's just like trying to pour more water into a barrel that is already overflowing. This certainly is inconsistent with the federal requirement that *"The TIP shall include a project, or a phase of a project, only if full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project."*[60] In air quality nonattainment areas like CDTC, there is even a stricter requirement: *"…projects included in the first two years of the TIP shall be limited to those for which funds are available or committed."*[61]

The issue is not of CDTC's making and therefore we do not fault the MPO. The NYSDOT Main Office, the Federal agencies and the New York MPOs have realized that the NYSDOT program development process needs sustentative overhaul and we are cooperatively working to that end. Discussions are underway on NYSDOT's Capital Program Update now, with CDTC and several other MPOs participating.

Upcoming Changes in CDTC's TIP Development Process

Prior to starting the 2009-14 TIP update, CDTC intends to refine the project solicitation/project justification package (PJP) and project evaluation procedures based on the many years of experience with these procedures. It also wants to ensure that the *New Visions 2030* actions and priorities are incorporated in the process. This will include a revision of the PJP section on preliminary identification of potential environmental issues to ensure consistency with *Appendix A to Part 450 —Linking the Transportation Planning and NEPA.*

Issues related to project development will also be reviewed. Specifically this includes methods for reporting on project milestones, issues and decision points to ensure adequate accountability on the part of implementers for the scope, cost and schedule authorized in the TIP. Exploration of this subject will also allow CDTC to consider the role of deadlines or "sunset" provisions to ensure steady progress on TIP projects.

Corrective Actions

- The State, the MPO(s) and the public transportation operators must cooperatively develop a TIP budget as the TIP is being developed.
- CDTC's Prospectus must include specific provisions for cooperatively developing and sharing information related to the development of financial plans that support the metropolitan transportation plan.

Recommendation

- CDTC should revaluate its *Guideline for TIP Changes* in light of the new definitions of Amendment and Administrative Adjustment. Also, the Guideline should address a "toll credit" action, whereby the State wants to change the Federal share on a project to 100%.

Congestion Management Process

"The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under title 23 U.S.C. and title 49 U.S.C. Chapter 53 through the use of travel demand reduction and operational management strategies." 23 C.F.R. 450.430(a)

The Congestion Management Process (CMP), dated May 2007, is an update to the CDTC Congestion Management System (CMS) that was first adopted in December 1995. This update is required by SAFETEA-LU. The CMP renews the CMS identification of critical congestion corridors, seven congestion management principles, and performance measures. It also describes the integration of operations and management into the CDTC planning process, another SAFETEA-LU requirement.

The CMP includes new performance measures, new data sources, and an updated ITS priority network developed by the *New Visions* Working Group B (which examined Expressway System Options); it introduces three new congestion management principles; it updates values for the *New Visions* performance measures; it updates the CDTC capacity thresholds; and it calls for further refinement of operations planning and performance measures to be developed by the recently established Regional Operations Committee

The Texas Transportation Institute estimates that 44 percent of the delay in the greater Albany area in 2005 was from recurring delay and that 56 percent of the delay was from nonrecurring delay.[62] Although there is a fairly even split between the different types of delay, the pattern within each is quite different. In general, recurring delay is in the form of relatively short delays affecting large numbers of people, and the nonrecurring delay is in the form of longer delays that affect a smaller group of people (on an average day).

Congestion mitigation is directly related to CDTC's *New Visions* goals concerning mobility, wherein mobility is best maintained by providing for convenient travel while reducing inefficient travel behavior. The CMP incorporates the full range of the *New Visions* core performance measures; for congestion, the core performance measure is *excess delay.* Person hours are used for all values except for

truck traffic, for which vehicle hours are considered more relevant. The set of principles used in the CMP is shown in Table 5; those marked "new" are recent additions to the 1995 principles.

The CDTC process departs from the traditional approach to addressing travel needs. CDTC strives first to maintain existing conditions and reduce the impact of forecasted travel by implementing demand management programs *before* considering capacity expansion; it uses the concept of risk assessment and tradeoff analysis in designing projects; and it is taking a fresh look at why travel occurs and why gridlock often does not.

The level of traffic congestion today in the Capital District is generally acceptable, except on a few routes during peak hours. However, CDTC forecasted an increase in unacceptable delay by the year 2030 as the result of projected development, a growth in both income and vehicle ownership, and shifts in the geographic distribution of activity toward suburban and exurban areas. The number of critically congested corridors is expected to increase if nothing happens to mitigate the growth. The *New Visions* Transit Task Force noted that this increased highway congestion will also hurt transit, as the auto driver can take alternate routes while the bus rider is stuck in the traffic.

Quantifying Congestion

In quantifying congestion, CDTC presently uses STEP, its travel forecasting model. CDTC maintains a current traffic count file containing all NYSDOT, CDTC and local machine and manual traffic counts. Using NYSDOT's extensive traffic data collection program on the State highway system, CDTC has been able to make a credible comparison of actual traffic growth relative to its STEP model forecasts. The comparison shows that the overall forecasts have been quite accurate.

The most significant aspect of CDTC's approach to CMP since 1995 is that the concept

Table 5. CDTC's CMP Principles

1	Management of demand is preferable to accommodation of single-occupant demand growth.	6	Incident management is essential to effective congestion management
2	Cost-effective operational actions are preferable to physical highway capacity expansion	7	Corridor protection and official street mapping are necessary to preserve options
3	Land use management is critical to the protection of transportation system investment.	8	New Any major highway expansion considered by CDTC will include a management approach.
4	Capital projects designed to provide significant physical highway capacity expansion are appropriate congestion management actions only under certain conditions.	9	New In project development and design, other performance measures, such as pedestrian, bicycle and transit access, community quality of life, and safety will be considered along with congestion measures.
5	Significant physical highway capacity additions carried out in the context of major infrastructure renewal are appropriate only under certain conditions (use of risk assessment here).	10	New The New York State Department of Transportation guidelines for roundabouts will be used for all CDTC federal aid projects that involve intersection improvements.

has been, and continues to be, fleshed out. CDTC is now rethinking the traditional approach to addressing forecasting and addressing travel, and base on past performance, this endeavor should prove interesting to the transportation community.

Identifying Congestion

CDTC uses the concept of ***excess delay*** rather than Level of Service to identify areas of congestion. Excess delay is the amount of time spent at a given location that exceeds the maximum amount of time that is generally considered acceptable. For auto and freight travel, excess delay is the amount of time spent at an intersection or along a highway segment in Level-of-Service (LOS) E and F conditions that exceed the maximum LOS D time. Thus, if you sit in your automobile for more than 40 seconds waiting to go through an intersection, you are experiencing congestion at that particular location.

Since the transportation user's *perception* of congestion is related to its magnitude and/or severity, CDTC has identified those corridors that have significantly greater congestion than typical. These corridors are defined as contiguous highway segments that, in aggregate, exceed certain thresholds. By far, the most critically congested facility is the Adirondack Northway (I-87), having 1,263 excess person hours of delay, as compared with the second most sever highway having 437 excess person hours of delay. The threshold values apply uniformly to auto, bus and freight transportation without additional monitoring efforts.

For auto travel, excess delay is defined as the amount of time spent at an intersection or along a highway segment in Level-of-Service (LOS) "E" and "F" conditions that exceeds the maximum LOS "D" time.

As part of the *New Visions 2030 Plan* development process, excess delay was measured using system level estimates from the CDTC STEP Model based on volumes and theoretical capacities. Working Group B recognized that such a system level approach was not adequate for evaluating expressway needs for several reasons.

- Theoretical highway capacities derived from the Highway Capacity Manual are routinely exceeded on many Capital District highways. Driving behavior and highway geometry affect traffic operations in ways that can not be predicted in the regional highway model.
- As highway traffic volumes grow and congestion occurs, drivers change their behavior in complex ways to avoid congestion. These vary from finding alternate routes to changing hours of travel to avoid the most congested periods. The result is that equilibrium is established that is more effective in reducing delay than is predicted by the regional model.
- The regional model does not predict when incident delay occurs and is not the best tool to assess the magnitude of incident related delay. In addition, the set of strategies to deal with incident related delay is different than traditional methods.

Working Group B was able to make use of an extensive data set called MIST (Management Information System for Transportation) for the expressway system. It provides speed and volume data on each lane of expressway segment every fifteen minutes throughout the year. The MIST data set was used to summarize and evaluate congestion at nineteen locations on I-87, I-90, I-787 and Alternate Route 7. The data was used to develop supplemental performance measures for the CDTC CMP and to help evaluate expressway operational needs and appropriate strategies and solutions.

CDTC will continue to use its STEP Model to estimate excess delay for non-expressway recurring delay. However, data sources for excess delay, such as the MIST data and speed and delay studies will be integrated when possible. Additional data sources are expected through ITS sources in the coming

years, such as the NYSDOT TRANSMIT program.

Measuring Non-Recurring Delay

Most would probably agree that congestion is considered more tolerable when it is predictable. Commuters can adjust their schedules to arrive on time. When congestion is unpredictable (e.g. due to an accident), the congestion can be more frustrating and unacceptable because they are far more disruptive to schedules than regular congestion. Generally, expressway corridors are more sensitive to incident disruption than others, and are therefore more unpredictable. To get a better appreciation of the predictability and reliability of major highways in the region, CDTC has employed a measure developed by the Texas Transportation Institute (TTI) called the "planning time index".

The planning time index gives a ratio of driving time on one of the slowest traffic days to driving time at 55 miles per hour. To understand what this index means, consider the following:

- A value of more than 1.0 indicates how much longer the trip would take on the worst days.
- A value of 1.0 means that traffic almost never gets slower than 55 miles per hour.
- A value of less than 1.0 means that traffic is faster than 55 miles per hour, even on the worst days.

As an example, assume your normal travel time on a certain highway in free flow traffic takes one hour. A planning time index of 1.5 means that the same trip would take one and a half hours on average once every twenty days during the peak period. So if a traveler wanted a 95% chance of arriving on time, he or she would have to plan on leaving one half hour earlier than when there was no congestion. However, if a one hour trip had a planning time index of 1.1, the traveler would only have to leave 6 minutes early to have a 95% chance of being on time.

Planning time indices were calculated on Capital District expressway segments for AM and PM peak periods using the MIST data. Indices were calculated based on an entire year of data for 2003, and separate indices were calculated for summer and winter travel. The facility level indices indicate that the highest planning time index value is 2.27, which occurs on I-90 in the westbound direction in the AM peak during the winter. This high value is likely due to the high traffic volumes near the Patroon Island Bridge and the geometry of I-90 near the bridge compounded by poor driving conditions due to weather.

The values on the Northway (I-87) indicate that travel in the off-peak direction is very reliable, with travel speeds almost always at or greater than the speed limit. The Northway peak directions (AM southbound and PM northbound) have reliability issues, with the PM northbound travel being more unreliable than the AM southbound travel. The maps indicate that unreliability in the morning occurs north of the Twin Bridges, and in the afternoon unreliability occurs predominantly south of the bridges.

Investment Decisions

Both the *New Visions 2030 Plan* and the CMP calls for an emphasis on managing congestion—rapid clearing of incidents, information for travelers to avoid incidents, and taking advantage of technology (ITS) including signal timing and coordination.[63]

Increasing roadway capacity is a common strategy for addressing recurring delay. However, increased roadway capacity generally is ineffective in addressing nonrecurring delay. CDTC completed a novel analysis that illustrates the potential pitfalls of widening freeways as a means of mitigating traffic delays. In analyses of adding capacity to the Northway (I87 from Albany north), two important conclusions were reached that must be considered in any discussion of additional

Investment in transportation is a choice – there is no "we have to do it."

freeway capacity. First, additional capacity will likely result in higher traffic volume, which make it impossible to attain a targeted level of service.

> *"One of the conclusions of this analysis is that there is no capital improvement such as highway widening that can eliminate daily recurring congestion in the peak periods. Adding capacity to the Northway can be expected to result in higher traffic volumes and could generally be expected to result in conditions similar to those which exist today. In addition, widening would not prevent delays that result from incidents such as bad weather conditions, traffic accidents and vehicle breakdowns".* [64]

Second, relieving congestion at one bottleneck location may worsen traffic at other bottlenecks. These other bottlenecks may include other freeway locations, but also non-freeway arterial roadways. No trip begins or ends on a limited access roadway. Increasing freeway flows generally worsens local traffic congestion in the vicinity of interchanges, which are often some of the most congested points on the local street system.

> *Analysis of the MIST data leads to additional preliminary conclusions about potential results of adding capacity to the Northway. For example, in the AM peak period, significant delay is experienced by southbound commuters approaching the Twin Bridges. However, south of the Twin Bridges, delays are significantly less because the congestion at the bridges "meters" the traffic further to the south; that is, since only a smaller amount of traffic is currently allowed to get past the bottleneck at the bridges, the traffic that does get through the bottleneck is less than the capacity provided and flows at much higher quality after clearing the bottleneck. Adding lanes to the Northway could remove this effect and possibly introduce new morning peak congestion dynamics in the area south of the current bottleneck. Also, the additional traffic that would be diverted by widening could add more delay to I90 eastbound in the morning, which is also capacity constrained."*[65]

Taking the above understanding into account, the CMP relies on travel demand management and encourages transit, pedestrian and bicycle travel. The *New Visions* Plan identifies the future option of managed lanes on the expressway system. An example of a managed lane could be a "HOT" lane on the Northway—a premium service lane that allows carpoolers for free, other drivers for a toll, and allows transit service to bypass congestion. A HOT lane is identified as one of the unfunded "big ticket initiatives" in the Plan.

While congestion management principles in the CMP plan have had an increasing influence in regional transportation decision-making, they are considered in the context of everything else, rather than the driving force. In choosing projects to be on the TIP, CDTC still does not entertain a stand-alone congestion project unless it is on the critical CMP list. If an infrastructure project is up for discussion, it has a better chance of selection if it is also on the critical list.

The CMP plan established two main goals for use in making investment decisions:

- Support the growth in economic activity and quality of life by limiting the amount of excess delay;
- Implement demand management programs *first,* before performing capacity expansions.

Thus, the CDTC strategy for reducing congestion is to employ a combination of TIP capital investments, incident management, demand management strategies, access management strategies, and operational measures.

As discussed in *Section, Transportation Improvement Program*, candidate TIP projects

go through a three-step process: screening, evaluation of merits, and project selection. During the screening process, candidate projects must be determined to be *consistent with* the CMP component: *"Is the project consistent with CDTC's Congestion Management Principles and Process (CMP)?"*

For projects specifically targeted at congestion mitigation, it must have local community support, be able to document that there does exist congestion (for highway capacity work), and the project must include commitments to local land use management (in the case of highway widening). These criteria reinforce the regional planning process and assure that projects evaluated for funding meet the CMP' seven principles. The "Meeting an Identified Need" criteria for mobility projects is a Level of Service of E or below, either under current conditions or projected conditions in the year of programming, and must exist in order for the project to be evaluated further.

Once the project successfully passes through the screening process, it is assigned a detailed ranking based on the merits of the project. Benefit to cost ratios (b/c) are calculated by CDTC staff wherever possible. Five measures of project benefit are calculated: safety, travel time, energy/user, life cycle and "other" benefits. The cost benefits of proposed mobility improvements are measured by calculating savings in user operating cost and travel time savings[66] that would result from project implementation. Future year traffic is assigned to the network with and without the proposed project. User operating costs and travel time costs are calculated as the difference between the costs resulting from these two assignments.

In making investment decisions on capacity aspects of highway projects, particularly infrastructure reconstruction projects, CDTC has adopted a CMP-driven design approach, wherein any significant capacity additions carried out in the context of major infrastructure renewal are appropriate only under compelling conditions. CDTC requires a tradeoff analysis inherent in the concept of risk assessment that focuses on the opportunity cost of selecting alternative designs. The next section - *Preservation of Existing Infrastructure* - further details this approach.

Managing Congestion on the System

CDTC is committed to reducing the travel impact by one-third to one-half through travel demand management efforts and land use strategies. Much of the reduction will be guided by the principles and proposed actions contained in the CMP. Projects are designed for the traffic target, not for the trend (note: consultants have found it somewhat disconcerting to design for traffic less than projected).

CDTC's approach appears to be working well in practice. The preliminary indication is that VMT growth has on average been lower than forecast, hereby lending credibility to the *New Visions* assumption that traffic growth could be dampened with plan implementation. CDTC hopes that the regional ITS deployment will help achieve the reduced VMT impact. (see discussion on ***backcasting*** in the *Air Quality* section of this report, page 88)

New Look at Accommodating Travel

The traditional approach to transportation investment in general, and highway congestion in particular, has been modified in the Capital District through its use of the concept of risk management (see *Section VIII: Preservation of Existing Infrastructure*). CDTC, however, is embarked on a fundamental reassessment of the principles and reasons why people travel, challenging certain traditional assumptions.

For example, a traditional approach to congestion is to identify present or future locations of congestion and make improvements to achieve a certain Level of Service, the assumption being that an *improved* LOS would be the choice of the public. However, the people of the Capital District have expressed their opinion that congestion should not be looked at as the sole measure of

I took the road less traveled… and got there on-time.

whether or not a highway improvement should be made. During the survey of residents along the relatively congested Route 5 corridor, 79% said existing level of congestion along on Route 5 would be acceptable if other services were improved (transit, pedestrian, etc.). In other words, *maintaining* the existing level of congestion was acceptable.

Forced flow conditions can result from traffic volumes exceeding practical capacity, or from traffic accidents or other types of incidents. However, in the Capital District, these conditions rarely continue for more than one hour unless they result from a traffic accident, bad weather, seasonal shopping peaks or vacation travel. The CDTC policy is that forced flow conditions can be accepted when the negative impacts of adding capacity outweigh the benefits**.** Specifically, impacts to community quality of life, pedestrian and bicycle access, transit access, safety, cost and other impacts must be considered in any transportation improvement. Improving traffic flow is only one performance measure of many that must be considered.

Trade offs among performance measures will be necessary in many projects. Congestion measures do not have higher priority than other *New Visions* performance measures. There are times when LOS E or LOS F *should* be accepted, especially when community context or cost makes it inappropriate to widen the roadway or add lanes at an intersection.

Another topic being looked at by CDTC that challenges the traditional understanding of travel is: Why doesn't gridlock occur? CDTC found that its overall forecast of future travel was fairly accurate, but its forecasts in certain congested corridors where congestion was expected to increase were not realized. Mr. Poorman has speculated that personal and commercial travel behavior accounts for congestion through an equilibrium process that prevents gridlock.[67] We note that The Brookings Institute has voiced similar speculations.[68]

Mr. Poorman notes that certain congested arterials in Albany (e.g., New Karner Road) have similar levels of congestion as they had 15 years ago, even with the addition of millions of square feet in new retail and commercial space in the area and few alternative routes to and from the new activity centers.

When new capacity is added to the highway system, people apparently tend to trade-in the travel timesaving benefit and move further out to the suburbs for bigger homes or possibly better schools. Conversely, when an existing route becomes congested, people make alternative travel choices. This apparent balancing effect leads to the idea that, in a region like the Capital District, **investments are a *choice* – there is no "we have to do it".** The choice is – where do we want the traffic and what physical condition do we want the system to be in? CDTC staff will further explore these issues.

Regional Operations

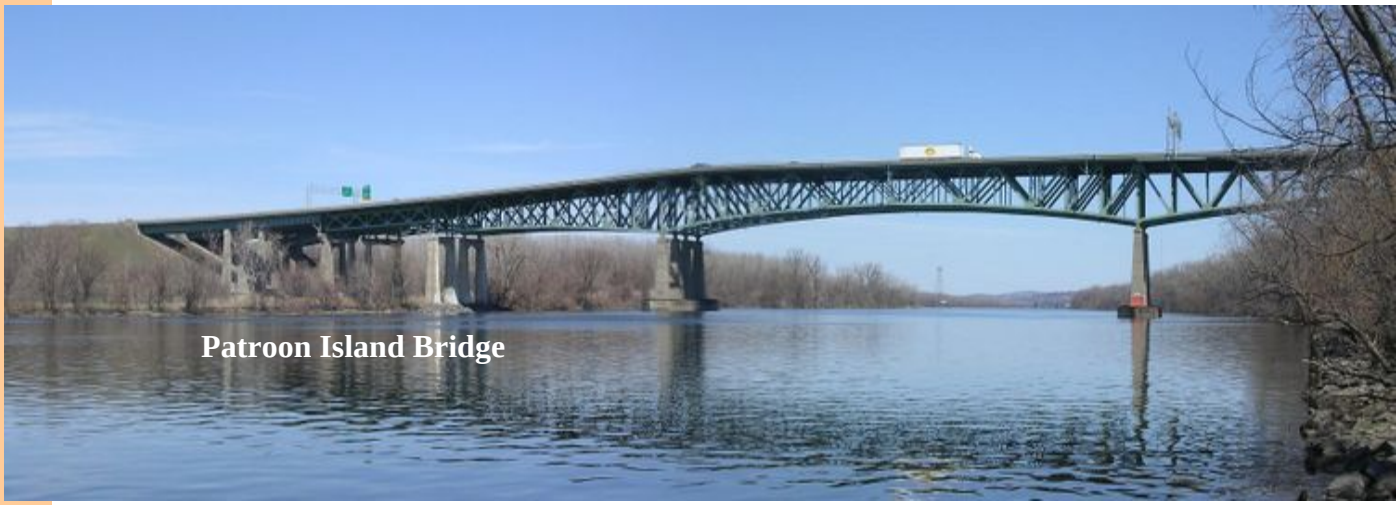
To help integrate management and operations into the planning process, CDTC and NYSDOT created a joint CDTC/NYSDOT Regional Operations Committee. This committee is intended to create a platform for operations/ planning people from federal and state transportation agencies, local MPO, regional planning agencies, highway and transit agencies, airport and port, various local municipalities, and law enforcement agencies to coordinate and integrate various traffic and transportation operations activities in the capital region. These exchanges are expected to mesh the day-to-day operation with the long and short-term planning process. The committee is still in its infancy and developing its goals and objectives.

Regular meetings will facilitate coordination of activities and initiatives across jurisdictions. A particular aspect of the effort will be the identification of cost-effective operations and management initiatives for consideration in CMAQ programming efforts,

including routine draw-downs of regional set-asides in the 2005-10 TIP. This committee may also explore the formal development of a "regional concept" for overall transportation operations, with potential components focused on signal systems, transit systems, among others.

Capital Region Transportation Management Center (TMC) - Since the New York State Police and Department of Transportation established a center from which to operate a high-tech system to monitor, assess and respond to roadway emergencies on some of the busiest highways in the Capital Region, traffic flow has improved for all Capital Region highway users.

There has been interest for the establishment of a Regional Operating Entity in the Capital Region. This initiative is still in the planning stage.



Preservation of Existing Infrastructure

"The metropolitan transportation planning process shall… emphasize the preservation of the existing transportation system." 23 CFR §450.306(a)(8)

When the I-35 bridge collapsed in Minneapolis in 2007, there was widespread concern over the condition of the highway and bridge infrastructure, particularly that of bridges. This section will look at CDTC's approach to maintaining the condition of the highway and bridge infrastructure in a satisfactory – or at least safe – condition so as to prevent tragedies such as I-35 or the 1987 collapse of the I-90 Bridge over the Schoharie Creek.

Freeways carry a large share of daily trips in the Capital District. The Interstate system, including I-90, I-87 and I-787, are most important, but the region also has a number of freeway sections on other roadways. This can be seen by comparing freeway lane-miles per capita across regions. Compared to other similar regions, the Capital District has *more* freeway lane-miles per capita. In its *Urban Mobility Study*, the Texas Transportation Institute has published data for all U.S. regions, including 30 regions in the size class that includes the Capital District – half a million to a million population. Of these 30 regions, Albany has the second highest number of freeway lane-miles per person, after only Richmond. Freeway lane-miles per person in the Capital District are 42 percent higher than the average of the 30 comparable regions.[69]

The CDTC places a strong emphasis on maintaining the transportation infrastructure, as can be seen in CDTC allocation of upwards of 73% of its N*ew Visions 2030 Plan* resources to infrastructure renewal. Preservation of the infrastructure is the first of ten strategies and has the first claim on available resources. The principle of Preserving and Managing the region's transportation system is CDTC's highest stated priority.[70] Transportation investment is based on function and need, not upon facility ownership. The plan lays out a performance based management strategy (e.g., painting bridges before they corrode, building more durable pavements, matching design treatment to road function rather than ownership or funding category).

Under the concept of preserving and maintaining the system, CDTC addresses the maintenance, repair and renewal of the existing highway and bridge system in a cost-effective manner. Appropriate investment in repair and renewal is said to be a higher priority than investment in expanded capacity. Public transit, sidewalks and bicycle facilities are included in the considerations.

The *New Visions* plan adopts a strategy of maintaining infrastructure in good condition, while focusing transportation investment identified for the priority treatment networks.[71] To achieve this preservation strategy, the plan details specific actions:

- Make the transportation system safer
- Continue adequate highway and bridge maintenance efforts and seek efficiencies in practice
- Carry out an effective highway and bridge rehabilitation and reconstruction program to improve overall pavement and bridge conditions to meet stated condition goals.
- Maintain transit equipment and facilities in a state of good repair. (Note: CDTA replaces vehicles on nearly a 12-year cycle, and updates garage facilities when needed.)
- Embrace a "risk assessment" approach for capacity considerations in designing infrastructure projects.
- Establish priority treatment networks for improvements beyond basic infrastructure renewal to be used for identifying and incorporating bicycle and pedestrian treatments, arterial corridor management treatment, ITS components, and removal; of barriers to freight movement into regular project design.

Definition of "System Preservation"

The *New Visions* plan (1997) first defined "system preservation" in terms of maintaining existing facilities at the current conditions. As stated previously, the plan drew a figurative 1996 "line in the sand" regarding the condition and benefits of the transportation system. CDTC required the plan to maintain or improve the overall transportation service quality from 1996 conditions and enhance the quality of life in the region.

This definition of preservation has implications for project investments. Capacity and safety improvements and design upgrades carried out in conjunction with facility renewal are considered separately as *discretionary* improvements, similar to stand-alone capacity, safety, or bike/pedestrian actions. Thus, the plan assigns first priority to the tightly defined system preservation needs. This approach is different than that taken in most MPOs, where the primary goal is to improve the condition of the infrastructure. CDTC seeks first to preserve existing infrastructure and any proposed improvements are weighed equally with other types of objectives. This approach also applies to the transit program, where system preservation needs are defined in terms of maintaining the existing fleet, other equipment and facilities at current size and condition. Upgrades and expansions are treated as improvements. Funding priority is assigned to preservation, and transit improvements are advanced along with other desired improvements as funding permits.

Risk Management & Tradeoff Analysis

Because of the CDTC's historic and commendable approach of assuring that the basic needs of system preservation should be the top priority, infrastructure tends to eat up a significant portion of CDTC's capital resources. CDTC uses a risk management strategy in its overall investment policy considerations to maximize available funding.

The traditional assumption about congestion is that an improved LOS is the choice of the public. The NYSDOT design processes generally direct designers to provide adequate LOS through the design year whenever feasible. The MPO has adopted a principle urging a common sense tradeoff analysis whenever capacity additions are considered in the context of an infrastructure replacement project. This

principle recognizes funding limitations and the relatively low regional priority for building capacity today for congestion that is not anticipated to appear for ten or twenty years.

CDTC discovered through the public involvement process that congestion should not be the sole measure of whether or not a highway improvement is necessary. For example, during the survey of residents along the relatively congested Route 5 corridor in Albany, 79% said existing level of congestion along on Route 5 would be acceptable if other services were improved (transit, pedestrian, etc.). In other words, maintaining the existing level of congestion was acceptable.

The risk management approach begins with the premise that significant physical highway capacity additions carried out in the context of major infrastructure renewal are only appropriate under certain conditions. Capacity and safety improvements and design upgrades carried out in conjunction with facility renewal are considered separately as discretionary improvements, similar to stand-alone capacity, safety, or bike/pedestrian actions. Rather than seeking infrastructure *improvement*, this approach seeks first to *preserve* existing infrastructure (1996 condition), and improvements are evaluated along with other types of objectives.

The traditional approach to project development has an agency designing improvements to achieve a certain Level of Service (LOS) in the future. For example, a bridge rehabilitation/replacement project (structure rated "poor) may be presently uncongested but forecasted to have congestion in 25 years due to normal growth in traffic. The traditional approach involves designing to accommodate those future traffic projections. A risk management approach, however, examines the costs and benefits of alternative designs and makes capacity treatment an explicit choice. A risk management approach asks questions like: Do 20-year traffic projections justify widening the bridge now? What is the projected congestion risk of replacement in-kind? What would be the additional expense involved in providing the incremental capacity later?

When considering various alternatives for improving a LOS E intersection, a risk assessment would evaluate the risk of providing for a future LOS D (because the intersection has a chance that it may not be congested in 2030) as opposed to improving the intersection to accommodate a LOS C (i.e.; the traditional approach). How much more does it cost to get a LOS of 'xyz' in 2030? Do you invest funds solely based on peak hour VMT when the capacity is not needed during the rest of the day? Thus, a facility's design through a risk assessment (tradeoff analysis) focuses on the opportunity cost of selecting alternative designs. This trade-off frees resources to address current needs on other projects. Risk assessment means just that, however - there is a risk you might be wrong.

To some extent, the concept of risk management is already evident in NYSDOT's Context Sensitive Solutions (CSS) program. [72] CSS is an interactive process that attempts to develop a transportation solution that fits into its local context. CSS is not a separate process or set of standards, but rather a philosophical approach from the project-scoping phase through design and into construction and maintenance. The emphasis is on finding the project's context – how it fits into the community and surroundings. The cornerstone of successful CSS is early, effective, and continuous public involvement. Under CSS, a proposed project has early and effective public involvement to identify community issues through continuous venues for exchanging ideas (workshops, committees). There is a strong effort to collaborate with local governments to deliver well-built projects that add value to the community with minimal disruption. NYSDOT then considers alternative solutions in order to benefit a broad range of stakeholders, while at the same time recognizing the limited fiscal resources and eligibility constraints.

The concept of Risk Assessment is slowly evolving in CDTC. It is being used at the NYSDOT level (project managers) on a case-by-case basis, but it is rarely done below the state level at present. CDTC and NYSDOT plan to work together to try to develop specific

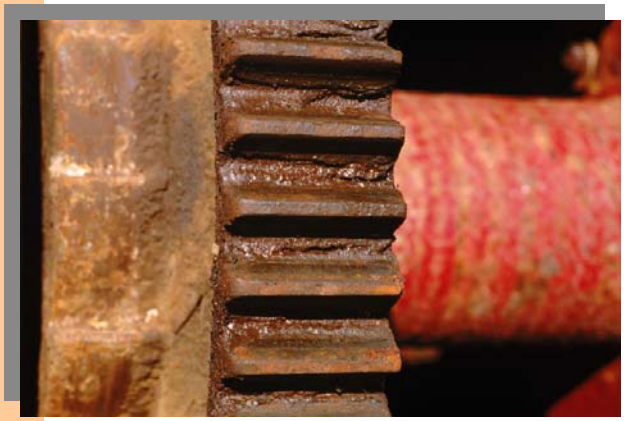
procedures for the tradeoff analysis' specified in CDTC's congestion management principles.

CDTC Condition Data

As expected, the majority of the Capital District's transportation infrastructure is in the form of roads and bridges, and CDTC conducts regular surveys of the condition of federal-aid and non-federal-aid non-state roads and highways. The biennial survey of non-state federal-aid roads, the annual survey of Albany County-owned roadways, and a survey of City of Albany-owned streets were completed during 2007. Together with similar surveys conducted by NYSDOT, and some local municipalities, the surveys help form a complete survey of the condition of all roads in the Capital District. In addition, NYSDOT conducts regular condition inspections of all of the area's bridges. Even though the vast majority of funding in the TIP is for infrastructure improvements, there is a slow but steady decline in conditions, as even admitted by NYSDOT on its own system.[73]

Slow Decline of Capital Region's Highway and Bridge Infrastructure Condition

A central issue raised in *New Visions 2030* is the aging of the Interstate system, and the Plan commits to systematic reconstruction of the system over the next 25 years. According to the *New Vision 2030 Finance Plan* document, the only pavement condition rating that has improved from the 1994 condition is on the Interstate System.[74] However, these highways are now between 30 and 50 years old, and there have been few full reconstruction projects on these facilities. Without intervention, in another twenty-five years, the system would be 55 to 75 years of age.



Pavement conditions on non-Interstate arterials and collectors have declined from 1994 conditions on both the state and non-state systems. The condition of state arterials on the National Highway System is now more similar to conditions on locally-owned arterials than to conditions on the Interstate system. Pavement conditions on non-State federal-aid roads (70% of the total lane miles in the four counties) have also declined, with the total percentage rated fair or poor increasing from 31% in 1992 to 50% in 2004.

Interstate system bridge needs are substantial. Overall, they are estimated to require about one-half of the total bridge budget over the next 25 years. While non-Interstate bridge conditions are improved over those from a decade ago, current funding is short by about one-half of the amount needed to achieve the modest bridge condition goals of having no more than 20% of all bridges in the deficient category. At current funding, the number of bridges rated deficient by 2018 alone will range from 24% (Thruway) to over 50% (NYSDOT owned Interstate bridges).

This means that, since CDTC's investment principles emphasize steady progress across all project types, all systems are deteriorating equally! Why the decline? Simple – the Federal, state and local transportation funding has not kept pace with the increase in per mile project costs. Federal transportation funding increased under *SAFETEA-LU*, but recent increases in the cost of materials coupled with inflation and the need to rebuild a nearly 50-year-old Interstate system have pushed the cost of the *2030 Plan* up 40% in the past six years – and this cancelled out the increase in federal funding. Funding is currently inadequate to address major highway and bridge reconstruction on an expressway system that will be up to 80 years old by 2030.

This declining fiscal/infrastructure situation is a statewide one, and it was recently

recognized by NYSDOT Commissioner Astrid Glynn in her October 2007 testimony on Transportation Needs Assessment (2010-2030) at the State Capital Budget Hearing. The Commissioner testified that preliminary estimates of total transportation capital needs for the 20 year period from 2010 to 2029 are $175 billion. These needs were reported in 2007 dollars and did not include any adjustments for inflation. As a comparison to existing investment levels, simply extending NYSDOT's current 5-year plan commitment levels through the 20 year period would result in an approximately $75 billion investment. The more than doubling of New York's current investment that would be required to achieve the goals of this assessment will clearly challenge the capacity of Federal, State and local governments to keep pace.

CDTC's Resource Allocation to Preservation

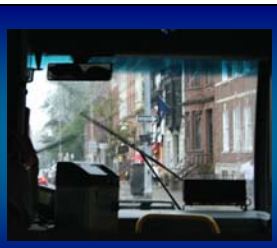
The *2030 Plan* recognizes that the level of current funding is falling short of the levels needed to meet basic commitments by nearly $200 million annually. By law, a regional transportation plan must be realistic about the resources required to implement the plan. CDTC takes this requirement very seriously. Over the last two years, CDTC made a significant effort at reviewing long-range state and local infrastructure financing. In conjunction with *New Visions* Transportation Financing Task Force, CDTC staff completed an examination of the components of historic increases in unit costs for infrastructure work, and estimated the long-range fiscal impacts of these higher costs on plan implementation. The findings of this work are described in CDTC's *New Visions 2030 Finance Plan.*

CDTC's bridge and pavement budgets reflect a careful examination of the rapid unit cost changes of the past few years. The *2030* plan incorporates a nearly 40% adjustment to the unit costs for major highway reconstruction and bridge replacement projects.

The slow decline of the pavement and bridge conditions in the Capital District is <u>not</u> the result of the MPO's preference for new facilities over system preservation, ribbon-cutting over repaving. The *New Visions* plan is extremely careful to limit commitments to those that will not compromise the region's ability to preserve and renew its basic infrastructure. Before the MPO will pursue any "big initiatives", <u>additional</u> financial resources need to be identified.

Even though CDTC is not embarking on any large scale capacity improvement projects, the financial resources presently available to maintaining current conditions and for improving the areas road and bridge systems is not sufficient. Over the long-term of the *Plan*, CDTC believes that it is reasonable to anticipate that revenues will eventually track inflation - "flat" level of revenues would lead to serious declines in physical and service conditions, and this would be unacceptable to the public. Funding for surface transportation historically has been cyclical, with funding initiatives achieving public support when viewed by the public as urgent and worthwhile. However, while the long-term financial prospects are realistic, short-term issues exist.

The transportation system, both in the Capital District and statewide, is under stress, from age, heavy use, and the lack of adequate investment. The system is safe, but the conditions of many parts of the infrastructure are worsening. CDTC recognizes that these trends cannot be reversed in a year or two; it will take a dedicated, sustained long-term effort. In the *New Visions 2030 Plan*, CDTC and its members commit to the necessary rehabilitation of the entire transportation system, along with modest upgrades and improvements. They recognize that they need to work with all interested parties at the federal, state and local level to explore prudent and timely actions to secure these funds. The recent Minnesota tragedy is just one example of how such public pressure can prompt federal and state discussions regarding transportation funding.[75]




Transit

"Development of plans and programs -To accomplish the objective stated in paragraph (1), metropolitan planning organizations designated under subsection (b), in cooperation with the State and public transit operators, shall develop transportation plans and programs for urbanized areas of the State." 23 U.S.C. 134(a)(2)

MPO coordination with the transit operators of a region is critical for effective and comprehensive transportation planning and programming. The CDTC and the transit operator for the Capital District area are successful in achieving this coordination.

The **Capital District Transportation Authority (CDTA)** is the major transit operator for the Capital District area. Created by the New York State Legislature in 1967, CDTA's legislative purposes are to "…the continuance, further development and improvement of transportation and other services related thereto within the Capital District Transportation District (Albany, Schenectady, Rensselaer, and Saratoga Counties) by rail road, omnibus, marine and air…" The legislation gave broad powers to the Authority to fulfill its purposes in the four county area, with provision for other counties to elect to participate.

The CDTA bus fleet of 250 vehicles serves a 4-county service area that encompasses some 2300 square miles. Over 750,000 people live in the service area. The FY2009 budget is $71,054,487. The transit system serves close to 13 million customers a year. On weekdays, more than 35,000 customer boardings occur on CDTA buses. The vast majority of CDTA's 58 regular routes are centralized in a 150 square mile urbanized area. Close to 43,000 customer boardings take place each weekday on regular route buses. CDTA provides a range of service, including local, limited stop-express, park & ride and suburban shuttle service. In addition to regular route service, CDTA provides rural bus service to a number of communities in the service area. [76]

The CDTA fleet replacement strategy is to replace 1/12th of the fleet each year by moving away from replacing our entire fleet over a one to two year period. This will reduce the burden on the capital program and at the same time improve maintenance operating efficiencies. CDTA employs approximately 500 people.

There are several other bus companies that provide bus service to the Capital District and surrounding communities:

- Upstate Transit: weekday commuter service from Saratoga County to Albany County
- Brown Coach: weekday commuter service from Montgomery County to the City of Albany
- Schoharie County Public Transportation: weekday commuter service from Schoharie County and western Schenectady County to the City of Albany
- Yankee Trails: weekday commuter service from Bennington, Vermont and parts of Rensselaer County to the City of Albany
- Columbia County Public Transportation: weekday commuter service from Columbia County to the City of Albany.

These companies are included in the process through working groups, TIP project solicitations and long range plan development.

Professionalism

The CDTA is an organization widely recognized for its professionalism. It is a voting member on the CDTC Policy Board and it is an exceptional host agency for the CDTC Central Staff. CDTA has been very supportive of the transit service recommendations produced in the series of *New Visions* plans.

CDTA has also taken a very responsible role in enhancing regional transportation capabilities. In recent years, CDTA assumed the difficult lead role in advancing the Rensselaer Intermodal Center. Until the Rensselaer Rail Station construction project, CDTA's primary focus was the delivery of bus transit services. This new oversight responsibility (including homeland security concerns at the station) was a difficult and sometimes thankless endeavor, but it has been very beneficial to the Capital District. If CDTA had not stepped forward to do it, it probably would not have been done.

CDTA is commended for this effort, especially since in none of these efforts is CDTA transit service a central feature or is there a compelling reason for CDTA to take responsibility.

Bus Rapid Transit Study

A good example of effective collaboration between the transit operator and the MPO is the on going planning and implementation of elements of Bus Rapid Transit (BRT) along a major regional corridor (NY5) between the cities of Albany and Schenectady. CDTA has been agreed to assume responsibility for a $5 million NY multi-jurisdictional "best bus" and highway signal ITS project along Central Avenue.

The *NY5 Land Use and Transportation Study* conducted by the CDTC, CDTA, New York State Department of Transportation, the City of Albany, and City of Schenectady, including the Village of Colonie, the Town of Colonie, and the Town of Niskayuna, identified Bud Rapid Transit (BRT) service as a critical step to achieve economic revitalization of the NY5 corridor. The addition of BRT service is intended to act as a catalyst for a more sustainable and transit/pedestrian-oriented development land use to help reduce the dependence on automobile use along the NY5 corridor. Part of the plan to attract new transit riders is to also offer bicycle/pedestrian access improvements, customer information displays, and other amenities at the new BRT stations. The following BRT elements have been defined to support its implementation along the NY5 corridor:

1. The CDTA has procured hybrid-electric buses;
2. Shared-use park-and-ride lots are being coordinated with the Albany Parking Authority;
3. Transit stations have been located and CDTA is in the process of securing federal funds to construct them;
4. Transit signal priority at all intersections;
5. Queue jumpers, and;
6. Plan for access management in conjunction with queue jumpers.

Harriman Campus-University at Albany Transportation Linkage Study

The Harriman Campus-University at Albany Transportation Linkage Study was a joint planning effort with the Harriman Research and Technology Development Corporation (HRTDC).

The study area included three campuses: the Harriman Research and Technology Park, the University at Albany's uptown campus and College of Nanoscale Science and Engineering (formerly Albany Nanotech), and the Patroon Creek Corporate Park. The study's objective was to develop a vision of an integrated, multimodal transportation system over a 10-year period and to develop strategies to connect the three campuses.

The study was managed by CDTC and HRTDC, the public participation process included an advisory committee and stakeholders representing the various interests throughout the study area. Some of the planning principles the group developed are:

- Improve intercampus connections, especially for cycling and walking.
- Improve interface with surrounding neighborhoods.
- Improve linkages within the City of Albany and to the greater region, especially via transit.
- Maintain access to the regional roadway network.
- Coordinate transportation improvements with land use improvements proposed in the Harriman Campus Development Plan and other local land use policies.

This is a multimodal study that provides a discussion of short-term strategies, long-term strategies and implementation. The short-term strategies include:

- establishing an area Transportation Management Association
- enhancing existing transit services; and
- creating bike lanes and improving pedestrian facilities.

A TMA is a non-profit organization that provides transportation services in a specific area. The TMA would guide the prioritization, funding and implementation of many of the study's projects and programs. The funding for the TMA would come from the four institutions. The Steering Committee for transportation development of the Study Area transportation network would come from the institutions, and representative of local neighborhood groups. The development of a TMA would be a public-private partnership to plan, fund, and implement the multimodal solutions identified in the study. The CDTA has proposed more frequent transit services in the study area through trunk route on Washington and Western Avenues. New shuttle services would need to be developed for HRTDC and Patroon Creek or modified for the University at Albany to integrate into the proposed trunk route services to achieve more frequent and efficient service in the area. Another proposal would create bicycle lanes on the ring roads of Harriman Campus, which would enable employees to bike to work while also providing pedestrian refuge islands at crosswalks. These multimodal improvements would provide commuting alternatives to relying on the automobile.

The plan also proposes long-term strategies that include developing a transportation spine between the campuses and establishing new bus rapid transit services. The proposed BRT service would connect the campuses in the study area to major attractions in downtown Albany. The BRT system would also integrate with other transit services to provide access to the wider Capital District region.

Coordinated Public Transit-Human Service Plan

This is discussed in the *Title VI/ Environmental Justice* section of the report.

Intermodal Goods Movement & Rail Passenger Planning

"(f) The metropolitan transportation plan shall, at a minimum, include: (1) The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan; (2) Existing and proposed transportation facilities (including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan."

23 CFR 450.322(f)(1)&(2)

The Capital District region is strategically located to be a major gateway for rail (passenger and freight), truck, air and waterway traffic between New England and the rest of the US, as well as between the eastern Canadian provinces and the eastern US. The British recognized this strategic location in the Revolutionary War – hence the battle of Saratoga. Whoever controlled the Champlain Valley/Hudson River corridor controlled the Northeast, and the Capital District was the key. The nation's earliest "interstate system" was the Erie Canal, and the Capital Region was both the origin and focus of that system. Today, the Capital Region is the hinge point of Amtrak's Empire Corridor (Buffalo to New York City), with the Rensselaer Amtrak station ranked 8th nationally in passenger boardings. The Region's I-87 Corridor is the main North-South transportation route from NYC to Montreal, and the Port of Albany is a key inland port in the Port of New York and New Jersey's new freight distribution concept.

CDTC's *New Visions* plan captures the public cost of providing and improving regional intermodal facilities. These include three Amtrak stations and nearby intercity bus terminals, the Port of Albany, and the Albany International Airport (both passenger and cargo). CDTC has had some noteworthy dealings with the issue of international trade and the movements of goods and freight. This is due partly because of the Capital District's strategic location in the Northeast, partly because of the vision of former NYSDOT Commissioner Boardman, and partly because of the innate talents of the member communities. The CDTC Policy Board also has the benefit of receiving insights from a variety of intermodal providers beyond the traditional highway/transit venue:

- CDTA (responsible for running the Rensselaer Amtrak Station and the Saratoga Springs Amtrak Station),
- Port of Albany Commission
- New York State Thruway (parent body of the New York State Canal Corporation)
- Albany Airport Commission. .

Before looking at CDTC's approach to passenger and freight issues, a brief look at the MPO's nontraditional voices is presented.

Albany International Airport

One of the major gateways to the Capital District is the Albany International Airport, which has the distinction of being America's first municipal airport. Albany County owns the airport, having originally purchased it from the City of Albany in 1960. The Albany County Airport Authority, a public benefit corporation, was created in 1993 and is charged with overseeing operation of the Airport under a 40-year lease with Albany County. In 1997, the Airport Authority was given voting membership on the CDTC Policy Board. The Airport Authority recently underwent substantial reconstruction, with a new terminal opening in 1998. The Airport Authority operates a full-service Air Cargo Terminal serving FedEx, UPS, DHL and Mobile Air. The Airport Authority has also commissioned a study to identify regional air cargo shipments that may be funneled through the Cargo Terminal.

The Airport Authority consists of seven members, four appointed by the Majority Leader of the Albany County Legislature and three by the County Executive, who jointly designate one of the seven members as chairperson. All appointments are required to be approved by the County Legislature.

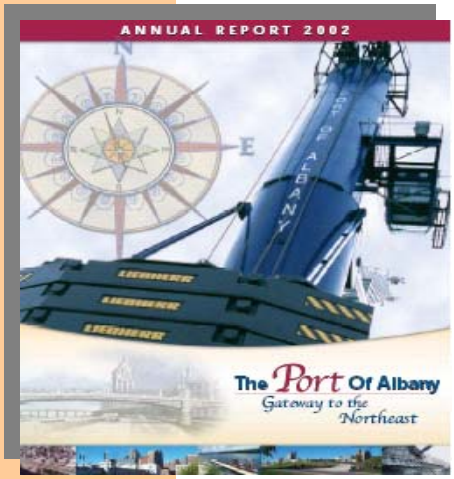
The Albany International Airport is recognized as a world leader in developing cost-effective environmental management of aircraft deicing fluids. To comply with environmental statues, the Airport Authority has installed a state-of-the-art Storm Water Recovery and Treatment Facility that utilizes micro-organisms to "digest" propylene glycol to below detection limits. The process produces methane gas, which is reused as fuel to heat the incoming fluid and to speed its processing. The gas is also used to heat the treatment facility.

The controlled development of the land surrounding the Airport was (and still is) the subject of the Airport Generic EIS, through which mitigation fees are being assessed to control the rate of new commercial development and the impact on the transportation infrastructure (see the *Land Use Considerations in Transportation Planning* section of this report for more detail on this "best practice".) In addition to the GEIS projects, CDTC has funded the airport cargo access TIP project, which required significant effort to get it designated as a NHS connector for federal eligibility.

Port of Albany

The Port of Albany, which has been in operation since the Dutch settled the region in the 17th century, is located 124 miles north of New York City. The Port is a year-round, deep-water inland facility. The Hudson River channel leading to the Port is 600 feet wide from New York City to Kingston and 400 feet wide from Kingston to Albany. A turning basin, located on the Rensselaer side of the River is 700 feet wide and 1,200 feet long; the channel depth is 32 feet in soft material, and 34 feet in rock. The Federal Trade Zone site is located on the Rensselaer side of the Hudson.

The Port of Albany Commission[77] is one of the key regional intermodal goods providers in the Capital Region, but it is probably the most unfamiliar to the community. It was established in 1932 to develop and operate the port facilities of the Albany Port District in the Cities and Albany & Rensselaer. The commission consists of five members, four of whom are residents of the city of Albany and one a resident of the city of



Rensselaer. The members are nominated by the respective mayors and appointed by the Governor.

The Port of Albany was the first Northeast port to participate in the Port Authority of New York and New Jersey's innovative "Inland Port" concept. This concept involved moving containerized cargo by barge or rail between marine terminal facilities in the Metropolitan New York-New Jersey area and regional terminals in New York, New Jersey and three other Northeast states. The containers are then warehoused and eventually redistributed by rail or truck throughout the Northeast and Canada. This concept will also enable the Port to serve as a container export center as well, as local and regional firms can use the barge service to ship their containerized goods down to the ports of New York and New Jersey for worldwide shipment.

An ethanol plant costing up to $350 million is planned for a section of the Port of Albany. The Albany Port District Commission selected the ethanol project for 18 acres on the west bank of the Hudson River. The project's developer, Albany Renewable Energy LLC, says the corn-based ethanol plant could produce as much as 110 million gallons of the fuel per year. The plant will require permits from the state Department of Environmental Conservation before construction can begin. Company officials say that could take 6 to 12 months, with the plant operational by the end of 2009.

Security at port facilities has receivied a rising lever of attention recently. All ports and terminals involved in international trade are required to implement a Facilities Security Plan.[78] The Albany Port District Commission has filed a Plan with the Coast Guard. In 2008, the PANYNY entered into a three-year agreement with the United States Department of Homeland Security (DHS) under which PANYNJ would act in the capacity of Fiduciary Agent of DHS to manage and administer a $1.95 million Fiscal Year 2008 Port Security Grant for the Port of Albany (a Tier II port).

The Port is a voting member of the CDTC Policy Board, but it has not been very active therein to date. Several Port access projects have been funded in the TIP.

Rensselaer Rail Station

Another of the major gateways to the Capital District is the Amtrak service through the Albany-Rensselaer Amtrak station (located in the City of Rensselaer). This station fluctuates between the ninth and eleventh busiest station in the nation and features prominently in the Governor's high-speed rail initiative. The Capital District Transportation Authority (CDTA), a voting member of the CDTC Policy Board and the host agency for the CDTC staff, operates the station.

The CDTA Rensselaer Rail Station facility, 80,000 square-foot size, was opened in September 2002 and is the largest train station built in the United States in the last 60 years. CDTA also operates a new Amtrak station in Saratoga Springs, New York. The building is actually owned by CPRail/Delaware & Hudson Railway; it is leased to CDTA with a 40-year renewable lease, with subleases to Amtrak and other tenants. The new station opened in March 2004. CDTA operates the Northway Xpress (NX) commuter line five days a week between the two stations, stopping at office parks, SUNY-Albany, and Park & Rides throughout Saratoga County and downtown Albany.

As noted earlier, we commend the CDTA for its leadership and courage at undertaking these rail projects. CDTA's enabling legislation allows for the continuance, further development and improvement of transportation (by railroad, omnibus, marine and air) and other related services within the Capital District. Until the Rensselaer Rail Station construction project, however, CDTA's primary focus was the delivery of bus transit services. Undertaking a unfamiliar project of this magnitude was indeed courageous.

New York State Canals

Albany is the beginning leg of the 363-mile long Erie Canal, first opened in 1825. Originally derided as "Clinton's Folly", it was the engineering marvel of its day. Today, the primary Canal System use is not for freight movement but for recreation and tourism. The Canal System is now operated by the New York State Canal Corporation, a subsidiary of the New York State Thruway Authority (voting member of CDTC). State legislation transferred responsibility and day-to-day operations for the 524-mile Canal System from the NYSDOT to the Thruway Authority in 1992. While the Canal Corporation is not represented on the CDTC per se, its parent corporation – the Thruway Authority – is a voting member.

NYS Canal

I-87 Quebec-New York Trade Corridor

The I-87 Northway is the most heavily traveled corridor in the Capital Region. The Northway, however, extends far beyond the boundaries of the Capital District. The I-87/Autoroute 15 corridor provides a direct international connection between the largest metropolitan area in the United States (New York City) and the second largest metropolitan area in Canada (Montreal).

The 300-mile long I-87 corridor has, until in recent times, been generally overlooked as a major international trade corridor and it is not yet identified as a High Priority Corridor by Congress. Within the Capital District, I-87 functions more as an arterial than an Interstate, as short distance commuter trips on I-87 account for a considerable portion of the overall traffic within the Capital Region. Ironically, the British had recognized this corridor's importance to the Northeast in 1777. The opinion of the corridor's importance, fortunately, has been changing over the past six years.

In 1998, the Saratoga Economic Development Corporation made an effort to identify 10 strategic business sectors and lay a framework and funding strategy for coordinated efforts between U.S. and Canadian businesses. In 1999, CDTC and economic developers in seven northern New York counties built upon that effort and began to explore the feasibility of an international trade corridor stretching from Albany to Canada. In September of 1999, CDTC sponsored a trade conference to raise the corridor's profile. Dubbed the Champlain-Hudson Trade Corridor, CDTC's intention was to build support for federal, state and private investment.

In 2002, Governor George Pataki and Quebec Premier Bernard Landry signed a Memorandum of Understanding to strengthen economic, scientific, and technological cooperation in the I-87 Albany/Montreal corridor.

Former NYSDOT Commissioner Boardman took on the role as champion in examining both the movement of freight and goods into and through New York State and the impacts on the State economy, now and in the future. He commissioned a report by the University

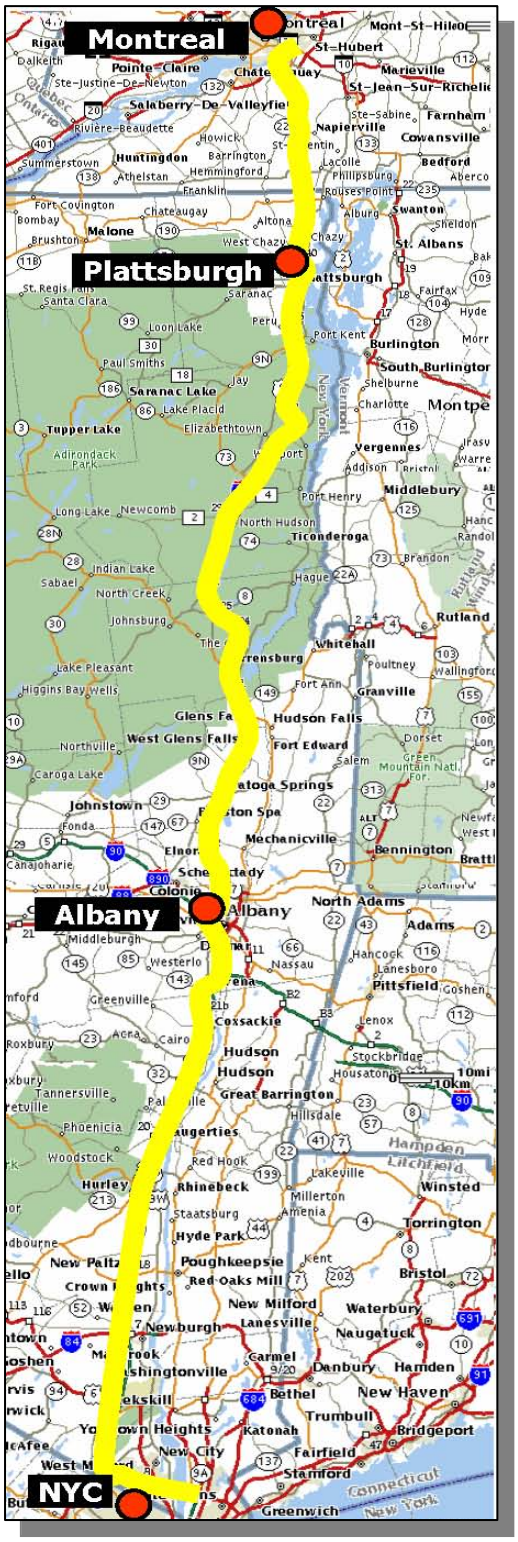
Transportation Research Center and Michael Gallis and Associated entitled *New York in the New World Economy* (December 2002). The report examined the impact that urbanization, economic activity, geography, and transportation constraints have had on the I-87 corridor.

In 2003, NYSDOT undertook the $2.5 million I-87 Multimodal Corridor Study to explore what efforts should be taken to maintain the I-87 corridor as a viable key trade corridor. This effort also is looking at the role of rail, air service and waterways in handling transportation needs in the corridor. The desired outcome of the study is to provide a blueprint of the major changes needed to accommodate the future expected demand. For example, the viability of high-speed rail between Albany and Montreal is being evaluated, as will transit options in the Albany-Saratoga commuter shed and improved access to key intermodal facilities such as the Port of Albany and tandem trailer lots. Eventually, NYSDOT hopes to translate the findings into actual projects.

The Champlain-Hudson Trade Corridor has been renamed as the **Quebec-New York Corridor (I-87)**.

The I-87 corridor is mentioned in NYSDOT's new statewide transportation plan entitled: *Strategies for a New Age: New York' State's Transportation Master Plan for 2030*. The plan adopted a corridor-based transportation management strategy, whereby future transportation planning and investments are focused on the State's most critical multimodal corridors. Designation of these transportation corridors as well as future planning and investment decisions will be accomplished in collaboration with local and regional transportation partners and stakeholders.

During the period covered by the State plan, NYSDOT intends to identify and designate major multimodal corridors that provide these connections in four major categories of corridors: Trade, Intercity passenger, Commuter, and Tourism. I-87 from Canada to New York City is specifically noted for its importance in trade and economic vitality of New York.



Amtrak's Empire Corridor

New York High Speed Rail

Interest in high-speed rail service to and from Albany had ebbed and flowed over the past 20 years, specifically along Amtrak's Empire Corridor. A 2003 Federal Railroad Administration report identified New York State's Empire Corridor (Buffalo-Albany-New York City) as one of the best-suited for high-speed rail service. The Empire Corridor is designated by FRA as a high speed rail corridor under ISTEA and TEA-21.[79]

The initial attempt at a high speed service between Albany and New York City began in the mid-1990's, but it was an embarrassing failure for NYSDOT, who oversaw the effort. The total cost estimate of the initiative was $185 million, with Amtrak and NYSDOT having a 50/50 share. FHWA agreed to provide up to $92.5 million (Federal CMAQ funds) to support NYSDOT's share of the initiative. Because of the lack of progress in needed infrastructure projects, delays caused by negotiations with CSX, and disagreements between NYSDOT and Amtrak over rebuilt turbo-trains, the initiative terminated in 2005 and FHWA required NYSDOT to repay the federal funds expended.

But interest in high speed rail has resurfaced again. In 2005, New York State Senate Majority Leader Joseph Bruno created a New York State High Speed Rail Task Force to make recommendations for initiating a more efficient and effective rail system throughout New York State. The Task Force is headed by John Egan, a former NYSDOT Commissioner and housed in the CDTA Rensselaer Rail Station – although the Task Force is not under CDTA's control.

In 2005, the Task Force delivered an Action Program (http://www.cdta.org/hsr/) that reported on the results of an intensive, 6-month-long study that provided recommendations for improving the intercity passenger rail network, proposing a plan for integration into the State's transportation system, measuring associated economic impacts, and providing a system concept plan and an implementation schedule. The Action Program laid out proposed recommendations for the immediate, short-term and long-term. The immediate and short term strategy is focusing on increasing existing Amtrak service reliability, and the long-term on additional capacity and acquiring right-of-way for a new high speed fixed-guideway route. We note one of the recommendations calls for the extension of MTA's Metro North service to the Capital District by 2012 (recommendation #21)

The Task Force has initiated additional studies that are theoretically being coordinated with NYSDOT and CDTA and CDTC.

► Unity of Control: A study will evaluate unity of control of the Empire Corridor between Schenectady and Poughkeepsie. The effort includes the evaluation of the potential acquisition of the CSX right -of -way and facilities in this corridor.

► Transportation Corridor Assessment – Rail, Light Rail and Bus Rapid Transit: The study will review the most effective means to provide passenger transportation services to emerging employment centers in the

region. It will include a broad overview and assessment of potential transportation possibilities, including commuter rail/light rail and bus rapid transit. It will address these options in the Capital District, Saratoga and lower Adirondack Region.

On August 21, 2007 a MOU was finalized between the NYS Senate Task Force on High Speed Rail and NYSDOT to implement projects contained in the *NYS Senate High Speed Rail Task Force Action Program.* A $22 million appropriation in the SFY 2006-07 State Budget provided that a program of projects shall be advanced with a Memorandum of Understanding between the Commissioner and NYS Senate Task Force on High Speed Rail. The Commissioner has agreed to implement elements of the *NYS Senate High Speed Rail Task Force Action Plan* within the funding available.

CDTC's Goods Movement Task Force

In the original *New Visions* (1997) development process, CDTC established a Goods Movement Task Force that continues to operate today. The Task Force brings together private freight operators and public freight planners to share information on local freight issues and events. Membership includes Albany County, University of Albany, Albany County Airport Authority, Port of Albany, New York State Motor Truck Association, and CSX, among others.

The Task Force provided input to CDTC's *New Visions 2030* plan, concluding that:

- Private sector carriers need to be better integrated into the regional planning process.
- There needs to be more consideration given to the timing of future freight related projects in order to integrate the lengthy timeframe that comes with receiving public funds and the short-term actions needed by the freight community.
- The Task Force and Annual Workshops should continue to ensure current goods movement strategies are incorporated into plans and processes.

The Goods Movement Task Force recommended against modeling freight movements, arguing that the freight industry is too dynamic to be accurately captured by a MPO model. Instead, CDTC has focused on identifying and prioritizing vulnerable (non-redundant) or sub-standard highway corridors and on participating in terminal, intermodal and trade corridor planning efforts.

Truck access issues do occasionally arise during CDTC's Linkage studies (see page 27 of this report). For example, the *Albany County Commercial Transportation Access Study* evaluated truck access within three neighborhoods of the I-787 corridor.

"REVEST"

A major element of the *New Visions* (1997) plan was the development of both passenger rail and intermodal freight movement in order to enhance economic growth and urban revitalization in the Capital Region. CDTC began a regional initiative to address flesh out this plan element, which culminated in the April 1998 document entitled *The Capital Region of New York's Regional Enterprise for a Vital Economy and Sustainable Transportation (REVEST).*

Ultimately, nine projects were identified and started to be coordinated into this program. The objectives of the nine *REVEST* projects are as follows:

1. Increase the region's economic conditions to major markets in the Eastern U.S., Quebec and Ontario through an enhanced role in intercity and international passenger transportation.

2. Use intermodal centers as a stimulus for and complement to other urban revitalization investments in Rensselaer, Albany, Schenectady, Troy and Saratoga Springs.

3. Explore the synergy between commuter operations and intercity operations and demonstrate the potential of intra-regional rail travel to manage congestion and reduce resource consumption.

4. Build the tourist economy of the region through linkage of tourist rail and bus operations with inter-city rail and bus operations.

5. Position the region to capitalize on further high speed ground initiatives[80]

The REVEST initiative is an excellent example of CDTC as an MPO using its forum to promote regional cooperation by identifying plans and projects that have similar goals and objectives that can be coordinated into one program. As a result of programming and implementation success, the REVEST working group has been folded into the Quebec-New York Trade Corridor Transportation Committee (see below). This will provide for a corridor-long focus and policy push for implementation of REVEST elements, such as high speed rail initiatives.

Air Quality

" (c) The MPO shall review and update the transportation plan at least every four years in air quality nonattainment and maintenance areas and at least every five years in attainment areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon."

23 CFR §450.322(c)

On November 15, 1990, President George Herbert Walker Bush signed the Clean Air Act Amendments of 1990 (CAAA90). This legislation has had a fundamental impact on air quality and transportation-related air quality, as it related the effect of transportation on air quality problems. The transportation sector was now required to be an active participant in the work to achieve attainment of the health-based National Ambient Air Quality Standards (NAAQS).

Nonattainment areas are those geographic regions that the Environmental Protection Agency (EPA) designates as not meeting one or more of the NAAQS due to monitored levels of pollutants. Ozone (O_3), carbon monoxide (CO) and particulate matter under 10 microns in diameter (PM_{10}) were the primary transportation-related pollutants at the time. The CAAA90 set severity classifications of non-attainment based on monitored air quality concentrations. Each nonattainment area was given an attainment deadline depending on the severity of nonattainment; if an area's monitored failed to meet the attainment date; it was "bumped up" to a higher severity and was subject to more stringent regulatory requirements. Since that time, EPA changed the standard for O_3 twice and added a new NAAQS: $PM_{2.5}$.

Capital District's Air Quality Recent History

Based on NYSDEC's monitored emissions data, EPA designated the Capital District to be a non-attainment area for the 1-hour Ozone standard in 1991; the severity level was set at "marginal", and the attainment date set for November 11, 1993. The non-attainment classification applies to the entire Metropolitan Statistical Area (MSA), which at that time covered the four urban counties (Albany, Rensselaer, Saratoga and Schenectady) plus two rural counties (Montgomery and Greene). EPA designates according to MSA boundaries to capture those areas of related population density, traffic and commuting patterns, commercial development and area growth that contribute to the total emissions.

In air quality nonattainment/ maintenance areas, the MPO's planning area boundary (MPA) is to encompass the entire nonattainment area – unless the Governor and the MPO agree otherwise. After EPA's 1993 designation, there

was an extensive discussion whether the CDTC planning boundary should be expanded to include all six nonattainment counties. Since the two rural counties were (are) outside the area that was likely to become urbanized with the CDTC's 20-year forecast, CDTC and the Governor agreed to keep the existing planning boundary (the four urban counties) and let NYSDOT continue to handle the two rural nonattainment counties.

In 1994, after several years of no monitored violations greater than allowable[81], EPA announced that it was proposing a determination that the Capital District area has attained the NAAQS.[82] However, the ozone standard changed before that was done.

As required by the CAAA90, EPA reevaluates the NAAQS every five years and makes appropriate revisions to protect public health. In July 18, 1997, EPA issued new air quality standards that replaced the existing 1-hour ozone standard with an 8-hour standard for ozone; there was also be a new standard for $PM_{2.5}$ (the Capital District is in attainment of this standard).

On April 15, 2004, EPA designated the Capital District as "Basic" nonattainment area for the new 8-hour ozone standard based on monitored data.[83] As usual, EPA designated the entire MSA as nonattainment, which encompasses the four urban counties plus the rural counties of Montgomery, Greene and Schoharie.[84]

On February 14, 2007, EPA announced that it would issue a "clean data" finding for the area because monitored ozone emissions for the four monitors in the area to be passing the 8-hour standard (0.085 parts per million). However, similar to Lucy Van Pelt pulling the football away just as Charlie Brown is kicking it, EPA then adopted a more restrictive 8-hour ozone standard (0.075 ppm); this revised standard placed the previously compliant monitored readings in Rensselaer and Saratoga Counties back into noncompliance.

Conformity of TIPs and Plans

Nonattainment areas, such as the Capital District, are subject to two sets of related regulations: the USDOT's metropolitan transportation regulations (23 C.F.R. Part 450) and EPA's transportation conformity regulations (40 C.F.R. Parts 51 and 93). FHWA and FTA-funded projects – and regionally significant projects even without Federal Funds – that are located in nonattainment areas cannot proceed unless they come for an air quality "conforming" TIP and Plan.

While an area's attainment designation is based on the pollutant levels *physically* monitored by NYSDEC, the MPO must *theoretically* demonstrate that the implementation of projects and strategies in its TIP and Plan meet the tests established in the State Implementation Plan (SIP) to enable the area to reach attainment. This analysis process is known as the conformity process (i.e.; "conform" to the SIP). The analysis is based on "modeled" levels of pollutant emissions, using an MPO's travel demand forecasting model and EPA's latest MOBILE emissions model. Currently, there are no specific emissions budgets for Capital District in the SIP, but that is expected to change shortly.

Even though a basic nonattainment area, the conformity analysis process in the Capital District nonattainment area is not as simple as that of other nonattainment MPOs. A small portion of northern Saratoga County (Town of Moreau) is covered by the Glens Falls MPO's planning process, not by CDTC. Furthermore, the rural counties of Montgomery, Greene and Schoharie are outside of the CDTC transportation planning area; thus, CDTC's travel forecasting model does not include these rural counties.[85] The conformity submission to the Federal agencies thus must be a combined emissions analysis covering the entire nonattainment area. This combined analysis is assembled in three parts: (1) emissions from CDTC's analysis of its TIP and Plan; (2) emissions from any new non-exempt projects identified by the Glens Falls MPO for the Town of Moreau; and (3) emissions from new non-exempt projects in the three rural counties. The first two sets of emissions are calculated by the CDTC and the third is done by NYSDOT. The three analyses are then combined and submitted as a joint analysis covering the entire nonattainment area. The combined analysis

has always passed one of the two interim analysis tests for the 8-hour ozone standard.[86]

In accordance with the CAAA90, conformity of transportation plans and programs in each non-attainment and maintenance area is a requisite determination made jointly by the FHWA and FTA, in consultation with EPA. A positive conformity determination on CDTC's *2007-12 TIP* was made on October 15, 2007 and a similar determination on N*ew Visions 2030 Plan* on April 9, 2008.

Agreements and Consultation

EPA's conformity regulations require a high degree of coordination among Federal, State and local entities and therefore have rules for the establishment of formal procedures of *Interagency Consultation* to ensure that all groups are involved. In New York, the Interagency Consultation Group (ICG) is composed of five permanent members: FHWA (New York Division), FTA (Region II), NYSDOT, NYSDEC and EPA (Region II), with equal representation by the MPO when the subject matter directly pertains to said MPO (e.g., a TIP or Plan air quality analysis). The ICG reviews the air quality analyses on draft TIPs and draft Plans before finalization so as to identify problems before the MPO formally acts on the TIP and/or Plan.

The transportation planning regulations require formal agreements within air quality nonattainment areas under certain circumstances, two of which apply to CDTC:

- *Agreement among MPO, State, State Air Quality Agency and others describing planning and Air Quality Conformity process in "Donut" areas.*[87]

The Capital District ozone nonattainment area includes the four central counties in CDTC's purview, plus three rural counties outside of CDTC's planning area (i.e.; "donut" areas): Greene, Montgomery and Schoharie Counties. There is no formal agreement per se among the parties; however, informal procedures have been worked out. The NYSDOT analyzes the air quality impacts of individual projects in the three rural counties, and the results are added to the CDTC's analysis to determine an overall regional analysis. The ICG has considered this arrangement adequate. However, the new ozone standard will require NYSDEC to develop SIP budgets for the Capital District area; once this is done, a formalized MOU in accordance with 23 CFR 450.314 (b) will be needed

- *Agreement between MPOs and the State when more than one MPO serves the nonattainment area.*[88]

As noted previously, the Adirondack/Glens Falls Transportation Council (A/GFTC) is the MPO for the Glens Falls, New York urbanized area; as such, it covers a small portion of northern Saratoga County (Town of Moreau), which is also in the Capital District ozone nonattainment area. There is no formal agreement per se among the parties; however, informal procedures have been worked out on coordinating the 3-C process in each area, and how the air quality determinations for the nonattainment area are done. The urgency of a formal agreement has not been great because of the small impact of the A/GFTC process on CDTC. There has not been an air quality non-exempt project proposed in the Town of Moreau since the 1990 CAAA, and no such project is planned in the immediate future. We believe that this requirement for agreement can be satisfied in the wording of the abovementioned MOU when developed.

Actions to Improve Air Quality

The Capital District is a basic nonattainment area for the 8-hour ozone standard, and there are presently no applicable transportation requirements or commitments in the Statewide Implementation Plan (SIP). Therefore, no goals, directives or recommendations of the plan conflict with the SIP or interfere with the implementation of transportation control measures (TCM) therein. Table 6 on the next page illustrates the air quality beneficial measures that CDTC typically includes in the TIP.

Table 6. CDTC Air Quality Considerations in TIP Development Decisions

Category	Existing 7-year TIP Budget ($M)	Recommended Additional / Total ($M)	Notes
Operations	21.527	**8.000 / 29.527**	Continued growth in effort, cost of regional operations. Resources to respond to direction established by new Regional Operations Committee. New Traffic Management Center planned; budget uncertain.
Travel Demand Management / Vanpool	3.846	**0 / 3.846**	Additional pilot programs, large vanpool seed effort possible. Without additional funding, will rely on current commitments and more modest efforts.
Bus Replacements	3.350	**8.000 / 11.350**	CDTA is initiating new fleet replacement cycle. CMAQ funds focused on diesel-electric hybrid benefits. Initial plan is to cover incremental cost.
Vehicle Inspections	0	**0 / 0**	No current need
Alt fuel, retrofit: transit vehicles, facilities	0	**0 / 0**	Could cover cost of clean diesel retrofit as part of CDTA bus overhauls (60-120 vehicles). Discussion led to focus on new vehicles only for CMAQ
Alt fuel, retrofit: other fleets and off-road vehicles	0	**2.000 / 2.000**	New program established in response to SAFETEA-LU priority would provide assistance in retrofitting fleets and off-road (construction, etc.) equipment cost-effectively with clean diesel or other equipment.
Bus Service	1.000	**0 / 1.000**	Could expand current program to support operating costs of new transit service during pilot period.
Amtrak Service / Stations	0	**0 / 0**	Possible source to expand service.
Bike/Ped Network	4.530	**1.000 / 5.530**	Provides for implementation of recommended actions in Linkage studies.
Trails	3.140	**0 / 3.140**	
Traffic Signal / TSP	11.050	**0 / 11.050**	Could expand current program for systematic signal upgrades, integration, and transit prioritization.
Intersection / Queue Jumper / Roundabouts	1.230	**5.000 / 6.230**	Provides resources to implement some of the many roundabout candidates region-wide.
Park & Ride	1.792	**0 / 1.792**	Existing program could be expanded modestly.
Marketing/ Planning	0.795	**0 / 0.795**	Transit-oriented Corridor Management Initiative planning efforts could be expanded.
ITS Set-aside	5.710	**0 / 5.710**	Regional set-aside could be expanded to leave room for new initiatives that come up between updates.

However, CDTC does strive to include TCM-like activities in the region. CDTC point to the following actions to improve air quality:

- Programs for improved public transit
- TDM measures
- Traffic flow improvements
- Park and Ride lots
- Commuter Register website for ridesharing matching
- Guaranteed Ride Home program
- Bicycle and Pedestrian considerations in *New Visions*
- Congestion Management Process

Concerning air quality thoughtfulness, CDTC's process is very good.

Policy Based Travel Forecasting

As noted earlier, CDTC's commitment to objectivity led to a sobering finding: the common sense goals for the region could not be achieved over 20 years if traffic grew at anticipated rates. This led CDTC's members to identify a policy target for future traffic levels and invest heavily in local land use planning as the best chance to achieve reduced growth rates.[89]

Traffic forecasts used in CDTC's planning and project development activities reflect the 20-year *target level* of traffic rather than trend level forecasts. Target levels assume that the CDTC will be successful over time in reducing the growth in vehicle miles of travel from the trend through improvements in street design, community structure and regional settlement patterns. Projects are thus designed for compatibility not with trend traffic forecasts, but with planned – sustainable – traffic levels. Thus, the forecasted VMT is Policy Based.

As previously noted, CDTC's planning process is an extraordinary approach to tying transportation, land use and regional vision. A strong regional consensus emerged from the *New Visions* plan that the region's quality of life, mobility, and economic vitality are all dependent upon improved land-use planning and on better integration of land-use development and the transportation system.

Technical analysis, however, indicated that these goals could not be achieved by 2015 with the anticipated trend-line growth and through transportation actions at expected funding levels. Doing things as usual would not achieve the region's vision. However, if the planned and affordable transportation actions were combined with aggressive land use and demand management actions, CDTC found that the goals could be achieved. Congestion might worsen somewhat, but reliability would improve and access to alternative modes would increase; safety would improve and environmental damage decrease; community revitalization would be produced by planned projects.

To represent its perceived effects of the *New Vision Plan* goals, investment principles and land use coordination efforts, CDTC employed a technique that it calls "backcasting" – determining the actions that are needed to achieve a particular outcome.

The policy of using traffic backcasting keeps the Plan in step with the regional vision. CDTC assumes success of the plan, and as goals and objectives are met, the region is kept on track to achieve its vision.

With full implementation of the *New Visions* plan through its strategies of steady progress across all 17 investment goals, CDTC fully expects that otherwise-expected increases in daily vehicle travel will be dampened from the trend forecast of 30% (1996-2015) to approximately one-third to one-half that level. This dampening of daily vehicle travel is represented in the CDTC STEP model as a 10% reduction in vehicle trips in 2012 with respect to trend growth forecasts, and as a 15% reduction in vehicle trips in 2015, 2025 and 2030.

To support the vision-based backcasting approach, the *2030 Plan* has strong policies regarding land use planning, site design and demand management. CDTC's *Linkage* program of local planning support is a direct result of the backcasting. CDTC assumes that

the desired outcome will be achieved by the set of land use and transportation actions in the plan.

The NYSDEC and EPA members of the air quality Interagency Consultation Group have voiced reservations with this concept, as future traffic is the major component in air quality conformity analyses, and CDTC is forecasting 15% less than trend. What's to prevent any MPO from asserting a future traffic number they just "pull out of a hat"? The ICG intends to revisit this practice in the near future after CDTC makes its case for the practice.

In the opinion of FHWA and FTA, CDTC's practice is acceptable. First of all, CDTC did not arbitrarily forecast a reduction in travel – it continues to use NYSDOT Region 1 annual estimates of average daily VMT on the state highway system to monitor both the validity of *New Visions* traffic growth assumptions and the plausibility of achieving the plan's objective of tempering the rate of growth in vehicular traffic. Because CDTC's forecasts are for the *entire system*, the growth rates for the entire system are understandably lower than for only the state system and would also be lower for the peak hour than for the 24-hour traffic load.

Next, the new CDRPC forecasts, going out to 2040, re-affirm previous forecasts showing continued slow population growth and a slowing of the rate in outer years. The rate of population growth forecast to 2030 and beyond remains essentially the same as the rate used in the 2021 plan. Similarly, analysis of journey-to-work data from the 2000 Census is consistent with prior work. Also, VMT nationally is slowing for a variety of reasons (gas prices, aging of the population, auto ownership rates, etc).

Finally, a summary report (Table 7) issued by FHWA shows that the growth rate of VMT at Automatic Traffic Recorder (ATR) sites in New York are slightly negative in 2006 and 2007 based on comparable months from both years.[90]

CDTC's approach to achieving the regional vision is resolute. CDTC does not want to forecast failure, and its planning process is not business as usual. CDTC's New *Visions policy* forecast results from planned transportation investment, demand management and the shifts of vehicular traffic to other modes and other times of day produced by improved regional land use patterns, community structure, site design and the better accommodation of bicyclist, pedestrian and transit modes.

Table 7. ATR Growth Factor Report for NYS 3/27/2008

Functional Class of Roadway	Percent Change Rate		
	2004 to 2005	2005 to 2006	2006 to 2007
Rural Interstate	-0.37	-0.63	-0.57
Rural – OPA	-0.71	0.73	-0.76
Rural – Minor Arterial	-1.25	-1.32	-1.08
Rural – Major Collector	-0.15	-2.88	-1.28
Rural Minor Collector	2.58	-1.30	-2.46
Urban – Interstate	-1.33	1.47	0.04
Urban – OFE	0.29	1.20	-0.83
Urban – OPA	-1.59	-1.59	-0.94
Urban – Minor Arterial	-0.17	-0.33	-0.70
Urban – Collector	-0.11	0.25	1.25
Urban – Local	0.00	0.00	0.00

We note that FHWA Washington cites CDTC's backcasting approach as an example of how Context Sensitive Solutions can result in community benefits.[91]

Congestion Mitigation and Air Quality Improvement Program

The CAAA of 1990 strengthened the link between transportation and the environment, toughening requirements for transportation projects to conform to air quality standards. In

the following year, the Intermodal Surface Transportation Efficiency Act (ISTEA) established the first federally-funded transportation program explicitly targeting air quality improvement – the *Congestion Mitigation and Air Quality Improvement (CMAQ)* program.

CMAQ funds come to the State (NYSDOT) in a lump sum determined by a weighted federal formula that takes into account both the severity of the air quality problems (CO and Ozone) and the size of the affected populations. In FFY-07, New York State received $173,273,535, which was approximately 9% of the nationwide CMAQ total allocation – second nationwide only to California.

The State can choose to allocate the funds among nonattainment or maintenance areas as it sees fit; NYSDOT commendably allocates the CMAQ funds among the areas in the same proportion as the federal formula. Since EPA designates nonattainment areas on a county basis in New York, the State allocates CMAQ monies on a county basis to its regional Offices.

FHWA and FTA gives deference to decisions resulting from the transportation planning process if the FHWA and FTA determine that the planning process is consistent with the ''3–C'' planning principles and when the planning study process, alternatives considered, and resulting decisions have a rational basis that is thoroughly documented and vetted through the applicable public involvement processes. Moreover, any applicable program-specific requirements (e.g., those of the CMAQ Program or the FTA's Capital Investment Grant program) also must be met.

CDTC's emphasis for CMAQ is on operations and transit improvements, rather than new capital highway projects. This is much higher that is observed nationally. CDTC's commitment to bike/ped projects is also high, relative to national practice.

In the current TIP, CDTC has programmed $2,000,000 in CMAQ funds to implement a diesel retrofit program. This solicitation is for both on-road and off road retrofit projects. Costs of eligible engine retrofit or engine repowers are eligible for submission. Both public and private sector entities located in the counties of Albany, Rensselaer, Saratoga and Schenectady are encouraged to apply.

TDM Pilot Efforts

A notable use of CMAQ monies by CDTC us the use of pilot TDM activities. In June 2001, NYSDEC and its labor unions agreed to participate in a transit incentive program funded through the TDM project on the TIP. An outgrown of this agreement was the *Commuter Ca$h* program, which kicked off in October 2003. Its concept is from the *New Visions* plan. The effort was a joint one - the Downtown Albany Business Improvement District (BID), CDTA and CDTC. It was a six-month pilot program providing generous subsidies for employees choosing to use public transportation while traveling to and from work. Employees working within the BID who

Table 8:
CMAQ Allocation to the Albany Nonattainment Area

Area	County	Weighted Percentage	2007 CMAQ Apportionment
CDTC	Albany	1.54 %	*
	Rensselaer	0.80 %	*
	Saratoga	1.10 %	*
	Schenectady	0.77 %	*
Rest of Region 1	Greene	0.25 %	*
	Essex	0.20 %	*
Region 1	Total	4.67%	$7,921,709
Other	Montgomery	0.26%	$433,133
	Schoharie	Not included yet in Federal formula	

* NYSDOT Region One allocates the CMAQ according to need.

commute to work using the CDTA bus system receive $20 coupons toward the cost of monthly CDTA *Swiper* passes. Employees who commute via regional coach services receive one $20 coupon per week that can be applied toward the cost of ticket books on Brown Coach, Columbia County Public Transportation, Schoharie County Public Transportation, Upstate Transit and Yankee Trails.

The COMMUTER CA$H pilot program had the following results by September 2003:

- A reduction of 1 million miles of commuter travel into downtown Albany since the inception of their pilot program in June 2001
- 14 miles of travel have been reduced for every program dollar spent
- 0.6 gallons of fuel have been saved per program dollar spent
- Accident costs were reduced $2.60 for every program dollar spent
- Commuters saved $5.30 in vehicle ownership and operating expenses per program dollar spent.

One of the greatest hurdles in most travel demand management programs in the Albany area is to make inroads into State Government. IRS rules are crucial to employers. The pilot program demonstrated that people will give up parking spaces downtown when it is demonstrated that the concept works. A reduction of 1 million miles of commuter travel translated into savings of approximately 455 tons of emissions and 45,000 gallons of gasoline.

In 2007, a Visitor's Pass pilot was conducted that resulted in the introduction of a new system-wide 3-day fare product targeted towards regional tourism use. Currently, TDM efforts include a Homeowner's Initiative, Occasional Use parking benefits for regular transit users in Albany Parking Authority lots, as well as ongoing marketing, guaranteed ride home, and Link to regional commuter transit provider programs.

CDTC intends to explore broader coverage and additional pilot experiments in 2008-10. These will include further work with state employees and health care employees; exploration of the long-standing vanpool commitment; further exploration of the feasibility of the region's first Transportation Management Association (TMA) at the Harriman Campus Redevelopment project and the University at Albany and College of Nanoscale Science and Engineering study area, and work on alternative commute options in construction work zones.

Needed Action

- When NYSDEC develops a specific emissions budget in the SIP for the Capital District nonattainment area, a Memorandum of Understanding must be developed that satisfies the 23 CFR 450.314 (b). This is a written agreement among the NYSDOT, NYSDEC, affected local agencies, and the CDTC describing the process for cooperative planning and analysis of all projects outside the MPA within the nonattainment or maintenance area. The agreement must also indicate how the total transportation-related emissions for the nonattainment or maintenance area, including areas outside the MPA, will be treated for determining conformity.

- The above MOU needs to also contain information on how the CDTC and AGFTC coordinate the conformity process in the Town of Moreau.

H.E.L.P. Patrol


911


Schoharie Bridge

Security Considerations

"The metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors: … (3) Increase the security of the transportation system for motorized and non-motorized users." 23 CFR §450.306(a)(3)

In 1998, the *Transportation Equity Act for the 21st Century* (TEA-21) added an additional planning element to requirements of the metropolitan planning process: "safety and security". Then came the September 11, 2001 terrorist attacks. In August 2005, *SAFETEA_LU* separated Security out as its own separate planning element in the MPO process.

Safety has been part of most MPO processes for quite some time, but little consideration has been given to security issues nationwide to date. Even our perception of what "security" means has changed since TEA-21. Prior to September 11th, the normal connotation of security was typically focused at the personal level, such as person being secure from harassment when riding transit. Now, the perception is more global in nature. Retired General Tommy Franks characterized the September 11th attack and its aftermath as a "crease in history."[92]

SAFETEA-LU calls for the security of the transportation system to be a stand-alone planning factor, sgnaling a increase in importance from prior legislation, in which secrity was coupled with safety in the same planning factor.[93] This change recognizes that planning has a role in critical elements of transportation secuirty. Of course, the specific action or actions a particular State or MPO might consider depends on the circumstances unique to the state or region, the transportation system and the level of risk.

The issue of security is being emphasized across the entire spectrum of transportation issues. Understanding how and where the transportation network may be vulnerable is an integral part of understanding and planning for freight movement. Redundancies in infrastructure, once shunned as not cost effective, are now seen as crucial to the availability of supplies and inventory, and the issue will feature prominently in transportation decisions in the future. Industry may have to rethink its current Just-in-Time delivery concept in light of the potential disruptive impact of terrorist activity on delivery ability. If a critical facility (e.g., bridge) closes for any length of time, inventory refill ability suffers.

Definition of "Security

Nationally, finding a common definition of "security" in the MPO planning context is challenging. Some MPOs seek a clear description of what "security planning" means, while others are comfortable with a vague definition. The FHWA generally defines "security planning" as that related to an event that is beyond the ability of local authorities to handle and respond to, and that outside resources will be necessary to assist. There is no checklist that defines "security" in the

context of MPO planning. Rather, each MPO is encouraged to create a local definition that both fits local needs and addresses the SAFETEA-LU planning factor.

For the purposes of this certification review discussion, "Security" will deal with significant disruptions to the transportation system, either long or short-term, intentional or not.

The Potential Role of an MPO

The role of the MPO in regional planning and decision-making will vary from one region to another. Some MPOs - like CDTC - have a long history of strongly influencing operations strategies, regional vision and land use development. Other MPOs have very little authority or responsibility beyond that of developing the transportation plan and transportation improvement program. However, the degree of involvement of an MPO in security planning is not always commensurate with their involvement in other regional activities, as is the case in CDTC. MPOs located in regions prone to natural disasters (e.g.; hurricanes, tornados, etc.) tend to be more involved in security planning for reasons other than terrorist attacks. USDOT included language within the planning regulations to make clear that there are differences across regions and disasters; it did so to encourage development of an approach that fits locally specific needs. "Consideration of the planning factors…shall be reflected, as appropriate, in the metropolitan transportation planning process. The degree of consideration and analysis of the [planning] factors should be based on the scale and complexity of many issues…"[94]

The Association of Metropolitan Planning Organizations (AMPO) has developed a technical paper on the range of roles for MPOs in planning for system operations.[95] The roles outlined in said paper are a good point of departure for the possible roles that MPOs could play in security/disaster planning, and are thus described in table 9. There is tremendous variation among MPOs in their security planning roles, and that it is critical for each MPO to determine its own value-added niche. For example, some MPOs might take on a data gathering and analysis role on behalf of the region's emergency response agencies, while others might take more of a leadership role by organizing meetings or discussions to facilitate better institutional coordination. The security planning requirement seems to be an opportunity for MPOs to define new and non-traditional roles for themselves.

Table 9. Possible MPO Roles in Security Planning

Traditional	The MPO incorporates system management and operations (M&O) role in its ongoing transportation planning activities. The focus would be on specific M&O projects that arise as part of the transportation planning process; but the primary responsibility for operations-type projects would rest elsewhere, most likely with the region's operations agencies.
Convener	The MPO would act as a forum where operations plans could be discussed and coordinated with other plans in the region. Regular meetings on operations issues would be held, but the MPO would still not be responsible for developing a regional operations plan.
Champion	The MPO works aggressively to develop a regional consensus on operations planning. MPO planners work with operating agencies to create programs and projects that improve system performance. The MPO takes the lead in developing regional agreements on coordinated operations.
Developer	The MPO would develop regional operations plans in addition to incorporating operations strategies into the transportation plan. System-oriented performance measures would be used to identify strategic operations gaps in the transportation system.
Operator	The MPO would be responsible for implementing operations strategies that were developed as part of the MPO-led planning process.

CDTC's Present Role in Security Planning for the Capital District

Nationwide, the issue of security is not yet a significant part of the MPO planning processes, and CDTC is no exception. CDTC's role, according to the previous table, is essentially "Traditional". CDTC is not directly involved in security operations, but it does have direct communication and interaction with key security agencies incorporating them into the regional planning process (NYSDOT, Port of Albany, Albany International Airport, Thruway Authority and the Counties).

CDTC recognizes that consideration of security is a requirement for the transportation planning process under the new federal regulations. The *New Visions 2030 Plan* adopted a provision for security considerations when making transportation investments:

> "6) Transportation planning and implementation in the Capital Region includes examination of security issues and incorporation of security actions that: protect lives and coordinate the use of resources and manpower through established plans and protocols; provide services during and after disaster emergencies to aid citizens and reduce human suffering resulting from a disaster; and provide for recovery and redevelopment after disaster emergencies."[96]

To date, CDTC's role in addressing the issue of security has been mostly limited to voicing support For example, a paper on CDTC's website notes: "CDTC will continue to follow the lead of NYSDOT and CDTA with security related issues and continue to provide a forum for operational discussion related the transportation system in the Capital District. If needed, CDTC will assist a security coordinating agency to the extent possible."

There are several ongoing activities in which CDTC does relate to the aspects of the security issue, foremost among those activities are those related to the Intelligent Transportation System, the Transportation Management Center, the HELP program, and the Regional Operations Committee.

Response vs. Recovery

Understanding and addressing the distinction between planning for disaster response and planning for disaster recovery is important. Many believe that the MPO process holds great potential for facilitating disaster recovery efforts. For example, if a bridge were to be destroyed in a natural or man-made disaster, federal recovery funds typically would be subject to "limits of eligibility" and thus be allocated for the sole purpose of replacing that bridge. However, if the MPO had already identified this bridge as a potential route for transit expansion, it would be an ideal time to reconstruct the bridge with this capacity. But, perhaps enhanced capacity is not a desirable outcome. Making this decision in the context of regional vision is the hallmark of CDTC's investment principles. Evaluation of traditional design parameters, risk assessment and tradeoffs in the context of regional vision are a significant strength in the CDTC process. If CDTC has the flexibility to allocate recovery funds in keeping with its investment principles, the security planning process would be significantly enhanced and the recovery-related funding can further *New Vision* goals and vision.

Intelligent Transportation System (ITS)

A significant component of security is the ability to quickly and effectively manage major disruptions in the transportation system, and the cornerstone of that ability is effective and coordinated communications. Intelligent Transportation Systems (ITS) concept is central to this effort. It is the intelligent use of highway, transit, toll and communications technology in a coordinated fashion to make the existing transportation system more flexible to changing travel patterns.

A dynamic ITS program readily lends itself to the advancement of security on the transportation system. For example, it can:

- Enable the minimization of response time to incidents and accidents through the use of incident management programs
- Provide capability for real time traffic information to help motorists avoid congestion

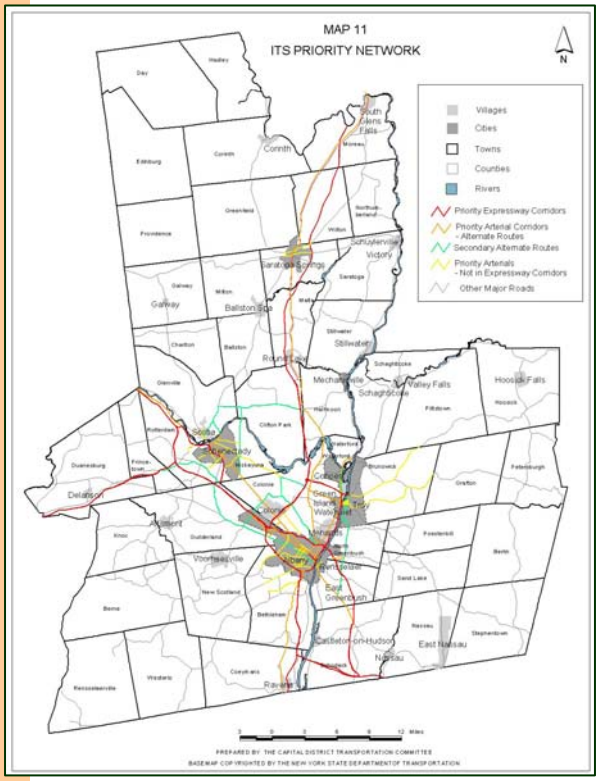
- Reduce weather related traffic incidents by using Road-Weather Information Systems (RWIS) to sense and respond to snow and icing more quickly

- Improve emergency management communications and provides real-time information to improve emergency vehicle routing

- Improve on-time performance and security for transit users through the use of automatic vehicle locator systems.

In addition, ITS can promote inter-agency communication, cooperation and data distribution. Through ITS, different jurisdictions can work together to manage the regional transportation network as a seamless whole.

In developing the *New Visions 2030 Plan*, the Expressway Management Task Force identified a network of expressway and arterial facilities as the platform for the regional ITS. The Plan calls for centrally coordinated traffic control and/or guidance along these facilities. The logic is that



advising travelers of preferable alternatives *before* they enter the most congested areas and facilitating smooth flows along the alternatives can keep overall traffic conditions from worsening.

During the development of *New Visions 2030*, CDTC's ITS priority network was updated. The network is primarily developed around the expressway system, but the arterial system was not be ignored, as ITS improvements to arterials which parallel the expressways will have direct benefits to expressway travel, especially by providing alternate routes during expressway incidents. For routes that parallel expressways, ITS holds the promise of allowing the signal coordination and timing plan to be changed by the TMC to facilitate diverted traffic during an incident. The priority ITS network is shown in the figure on this page. Several ITS projects have been funded through the TIP.

Note: on ITS-NY website, several MPos are listed, including the MPO for Buffalo, Rochester, New York City and Ithaca. For the Capital District, the contact shown is the CDPRC, not the MPO. http://www.its-ny.org/links.htm

- Capital Region Transportation Management Center

The TMC was established by the New York State Police and NYSDOT to operate a high-tech system to monitor, assess and respond to roadway emergencies on some of the busiest highways in the Capital Region. It is located at State Police headquarters in Albany and is jointly operated. CDTC has supported the TMC with CMAQ and STP funding in the TIP.

- HELP (Highway Emergency Local Patrol).

HELP is an integral component of the NYSDOT's Incident Management Program, fostering partnerships with local and statewide law enforcement and emergency response agencies. HELP significantly decreases motorist delay and increases motorist safety by providing emergency roadside service to disabled vehicles on high volume, limited access roadways. The NYSDOT Region One HELP program was launched in December 1998; today, it has four vehicles and almost 120 directional miles of highway patrolled,

including the Thruway between exits 23 and 25. CDTC has funded the H.E.L.P. effort through the TIP.

- Regional Operations Committee

CDTC has formed a Regional Operations Committee to further develop the performance of the CMP and to evaluate the performance of ITS, incident management, and operations systems in the Capital District. Operational and management strategies will be developed and evaluated to improve the performance of existing transportation facilities, to relieve vehicular congestion, to maximize the safety and mobility of people and goods, and to integrate multimodal solutions.

- 511 Program

NYSDOT is working to deploy a 511 Travel Information Service that will be available throughout New York State and the greater New York City metro area. In its mature state, NYSDOT envisions the state's 511 program as a seamless multi-platform service, distributing travel information by telephone and other electronic means, including hand held/mobile devices, internet web pages, e-mail, and in-vehicle devices. Currently, 32 other states have launched a 511 system. Information would be provided on incidents, status, modal availability, travel speed and time, roadway conditions, congestion, work zones, weather, planned event, and tourism. NYSDOT is working with the State Emergency Management Office to issue our transportation incident alerts through the NYAlert system.

Critical Infrastructure

Critical infrastructure can be defined as systems and resources (whether physical or virtual) so vital that the incapacity or destruction of such systems and resources would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters. Planning for transportation security must include the identification of the critical infrastructure and ways to protect it.

A CDTC working group notes that, for the Capital District, a critical transportation infrastructure plan should include the following:

- Albany International Airport and other community airports; the interstate highway system, particularly at key nodes, such as the I87/ I90 merge
- Key bridges or overpasses, both in the interstate highway system and local road network;
- CDTA bus transit transfer areas and Amtrak Stations
- Critical freight and inter-modal areas, such as the Selkirk Rail Yard, the Port of Albany, and the Port of Rensselaer
- National Highway System (NHS) Inter-modal Connectors, as identified by the FHWA.

Additional Role for CDTC?

According to a NCHRP Study entitled *Incorporating Security into the Transportation Planning Process*, some of the reasons why little consideration has been given to security in the MPO process are the widespread confusion over that specifically security refers to, which level of government is responsible, where the funding for these initiatives will come from, and how federal legislation can be interpreted regarding the need to specifically address security as a core element of the required transportation planning process.[97]

Finding the MPO niche within an already well-established security network is a recurring topic of conversation among MPOs. Many believe that the most effective role it can play is as a forum for collaboration between agencies, but not to impose itself on already well-established security planning functions. Still, there is a great deal of apprehension among MPOs regarding well-established plans and systems, and the ability to approach these groups with confidence and a sense of contribution. Some believe that the best place to begin is for an MPO to clarify for itself the existing roles that other agencies are filling and determining the "gaps" in the network. These gaps would then serve as a starting place for defining

the role of the MPO. It is generally agreed that it is not advisable to re-invent what is already well-functioning.

As an example of how MPOs have not been included in security planning issues in New York, consider that New York State's general responsibility for preparing for disasters is vested in the New York State Disaster Preparedness Commission. Its responsibilities include the preparation of State disaster plans; the direction of State disaster operations and coordinating those with local government operations; and the coordination of federal, State and private recovery efforts. The Commission is made up of the commissioners, directors or chairpersons of 23 State agencies and one volunteer organization - the American Red Cross. The State Emergency Management Office (SEMO) is a member. While two of CDTC's voting member agencies are on the Commission (NYSDOT and the Thruway Authority), it is revealing that of the 65 web links listed on the SEMO "related links" web page – not one is a NY MPO.[98]

Can CDTC in its role as the MPO do more regarding this issue? Possibly – the Regional Operations Committee should help. We do note that some CDTC member agencies are addressing the topic individually through measures such as video surveillance cameras, new fencing around facilities and so on. The uncertainty with knowing if there's an additional role that CDTC could play is largely that **no real information being released to the NY MPOs** by the agencies involved in security planning, even those members on the CDTC Board (e.g., NYSDOT, Thruway, Albany Airport, the Port of Albany, the Counties having Emergency Preparedness agencies, etc).

CDTC has the preeminent MPO process in New York, recognized nationally for its cooperative and innovative institutional culture. Stakeholders are involved at every level in the development of the transportation planning documents and the implementation of goals set forth therein. We believe that CDTC should open a discussion as to its proper role in security planning and emergency preparedness. At a minimum, CDTC's modeling expertise could identify evacuation routes and to evaluate the adequacy of these routes to carry the necessary amount of traffic in the event of an incident or emergency. Of all the planning factors in the federal regulations, security is the one element where CDTC is an underutilized resource. CDTC is in a unique position to foster cooperation among different modes of transportation, governmental agencies, and groups focused on security.

Congress evidently thought that MPOs should be more involved than then traditionally were, as indicated by breaking out security as its own required planning element. But to be involved, one has to be part of the discussion in order to participate! Is the lack of information available to the MPOs because the MPOs not considered as units of government? Perhaps - or, perhaps the issue just needs to be raised in the MPO forum.

To Be Involved, One Has to First be Part of the Discussion in Order to Participate

Rather than waiting for others to approach CDTC, it is recommended that CDTC be proactive and build support for their security planning mission by demonstrating how their work adds value to the region's emergency response and recovery capacity. The first step would be for CDTC to open a discussion among its members on its appropriate role in furthering the coordination and cooperation among member agencies on the security issue.

MPO Involvement with Emergency Relief Funds

The FHWA emergency relief (ER) program provides funds for repair or reconstruction of Federal-aid highways and roads on federal lands that have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause.[99]

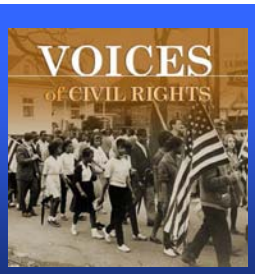
The federal regulations identify which projects must appear on an approved TIP and STIP, and which projects are optional. FHWA's Emergency Relief funded project are optional - -

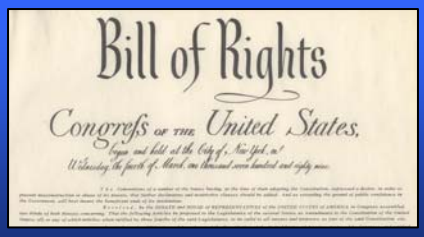
except those involving substantial functional, locational, or capacity changes.[100] Thus, the MPO process could be bypassed regarding the type of replacement. Rather than simply rebuilding a damaged transportation facility in-kind, for example, perhaps the MPO would prefer to have the facility rebuilt with capacity improvements, rebuild on another location, etc. Emergency relief funding would be part of these considerations, especially for the Big Ticket items, as such funds are over and above traditional funding resources.

Given CDTC's philosophy of coordination and the excellent working relationships among the members, it may be beneficial to have some definite policy on how emergency relief monies are spent if and when they are needed.

Recommendation

- CDTC should open a discussion with its members on its potential role in furthering the coordination and cooperation among member agencies on the security issue.
- CDTC should consider obtaining agreement on how decisions involving the use of emergency relief funding would be made.





"… the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including… (3) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d–1) and 49 CFR part 21; (4) 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;" 23 CFR 450.334(a)(3) & (4)

Title VI & Environmental Justice

The Civil Rights Act of 1964 guarantees equal protection under law and prohibits intentional discrimination based on race, color, or national origin. In 1984, Federal regulations implementing Title VI were amended to prohibit recipients of Federal aid from carrying out any policy or program that has the *effect* of discriminating against individuals covered under the 1964 Civil Rights Act.

In 1994, President Clinton issued the Executive Order on Environmental Justice (Executive Order 12898), citing the 1964 Civil Rights Act and Title VI as foundational pillars.[101] The Executive Order directs all Federal agencies to incorporate, as part of their mission, the goal of achieving environmental justice by ensuring that federally-funded policies and programs do not subject minority and low-income communities to "disproportionately high and adverse human health or environmental effects".[102]

Executive Order 12898 was created to bring federal attention to the environmental and human health conditions in low-income and minority communities with the goal of achieving Environmental Justice (EJ). The goal of EJ is to ensure that any adverse human health or environmental effects of any government activity does not disproportionately affect minority or low-income populations. EJ does not intend to provide preferential treatment to these populations, but rather fair treatment to all populations. As it relates to transportation, Executive Order 12898 was issued to ensure that all Federally-funded transportation-related programs, policies, and activities that have the potential to cause adverse affects, specifically consider the effects on minority and low-income populations.

In 1999, FHWA and the FTA issued a memorandum *Implementing Title VI Requirements in Metropolitan and Statewide Planning* that gave a clear message that Title VI and Environmental Justice are integral throughout the transportation planning process.[103] As part of the self-certification and in its adoption of the TIP, the MPO self-certifies that its planning process adheres to Title VI. CDTC's latest such self-certification was June 7, 2007 in conjunction with the development of the 2007-2012 TIP.

Title VI and Environmental Justice Apply to All Transportation Decisions

Concern for environmental justice needs be integrated into every transportation decision - from the first thought about a transportation plan to post-construction operations and maintenance. The *U.S. DOT Order* applies to all policies, programs, and other activities that are undertaken, funded, or approved by the FHWA and FTA in:

- Policy Decisions.
- Systems Planning.

- Metropolitan and Statewide Planning.
- Project Development and Environmental Review under NEPA.
- Preliminary Design.
- Final Design Engineering.
- Right-of-Way.
- Construction.
- Operations and Maintenance.

MPOs serve as the primary forum where State DOTs, transit providers, local agencies, and the public develop local transportation plans and programs that address a metropolitan area's needs. MPOs can help local public officials understand how Title VI and EJ requirements improve planning and decision making.

> *"No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."*
>
> *- Title VI of the Civil Rights Act of 1964*

CDTC's public involvement process, especially as conducted in the development of *New Visions* series of plans, is exemplary. CDTC routinely includes an effort to perform a review of EJ issues, as well as to implement a standard procedure for including EJ considerations in the planning process.

The goal of Environmental Justice is to ensure that services and benefits are fairly distributed to all people, regardless of race, national origin, or income, and that all people have access to meaningful participation. In transportation programs, this includes:

- ❑ Avoiding, minimizing, or mitigating disproportionately high and adverse human health and environmental effects (social and economic) on minority and low-income populations.
- ❑ Ensuring the full and fair participation in the transportation decision-making process by all potentially affected communities.
- ❑ Preventing the denial of, reduction in or a significant delay in the receipt of benefits by minority and low-income populations.

The types of communities and individuals that are of concern to Title VI and EJ largely overlap, with a slight addition under EJ. Title VI prohibits discrimination on the basis of race, color, and national origin. The *DOT Order on Environmental Justice* and Executive Order 12898 address persons belonging to any of the following groups: African American, Hispanic, Asian American, American Indian and Alaskan Native, and Low-Income.

The Title VI regulations and the Executive Order do not prescribe the specific methods and processes for ensuring environmental justice in transportation planning. State and local transportation agencies are free to explore and devise their analytical techniques and public involvement approaches to integrate EJ considerations in transportation decision-making.

CDTC's Environmental Justice Program

Over the last 10 years CDTC has worked hard to take the federal EJ/Title VI guidance and legislation and incorporate it into the MPO planning process. In March 2007, CDTC completed an *Environmental Justice Analysis* that outlines CDTC's standard procedures to include EJ issues and analysis in the MPO's planning process. The analysis also discusses in depth how CDTC incorporates EJ issues into their TIP, UPWP, and public participation processes.[104] CDTC's EJ program sets forth three basic questions:

1) Is there adequate access to the process?
2) Is the outcome equitable?
3) Are the impacts fairly distributed?

The process begins with CDTC's program objective.

• Program Approach

In order to facilitate an MPO's ability to address EJ, the basic foundation must first be constructed among the staff. CDTC's approach has been:

- Educate staff on EJ regulations, issues, and components.
- Provide staff with case studies of successful EJ implementation.
- Collaborate with NYSDOT and other MPO's regarding their status/approach concerning EJ implementation.
- Formulate a standard procedure that allows for the realistic implementation and documentation of EJ analysis and principles.

• Identification of Geographic Areas of Concern

CDTC defines "special concern areas" as areas that have the populations exceeding the regional mean in certain categories – the regional mean becomes the threshold for identification.

CDTC identifies the location of EJ communities based on attribute data that primarily comes from the U.S. Census Bureau, as well as any other data available locally that would help identify EJ populations. CDTC uses its GIS[105] to visually display the data, which helps in the identification of geographic areas of "special concern" (e.g., low income and minority geographic areas).

CDTC aggregates the Census data into Transportation Analysis Zones (TAZ), which are the geographic units used in CDTC's travel-demand forecasting model. In the present model, there are 924 TAZ in the Capital Region. Percentages of minority and Hispanic populations were calculated for each TAZ. Percentage "thresholds" were calculated by determining the four-county planning area percentages of minority and Hispanic populations. Thus, CDTC identifies any TAZ with a minority population greater than 11.2% or a Hispanic population of 2.6% as an area of special concern.

Regarding low income, the 2000 Census data showed that 8.9% of the population in the four counties was below the 1999 poverty level. Therefore, any TAZ with 8.9% or greater population below the poverty level is considered a low income target area of special concern. Out of a total of 924 TAZs in the region, 403 meet one or more of the threshold levels for special concern. Therefore, 44% of the region's TAZs are Environmental Justice target population areas. This data is shown in Figure 6.

Table 10: Capital District Profile

Data Set	Total for CDTC area	Regional Percentage (Threshold)
Total Population	794,293	
Minority Population	89,021	11.2%
Hispanic Population	19,977	2.6%
Low Income Population	70,544	8.9%
Total EJ Population	179,324	23%
Zero Car Households	36,022	11.3%
TIP Projects in EJ Areas	117	48%

CDTC Environmental Justice Analysis Report 2007

Seeking the EJ Community's Input

CDTC uses both traditional and nontraditional methods of soliciting input into its plans and programs. The traditional methods involve the web site, mailing list announcements, availability for public comments are CDTC meetings, and so on. The CDTC process includes a variety of additional measures that are insightful regarding assistance to EJ communities:

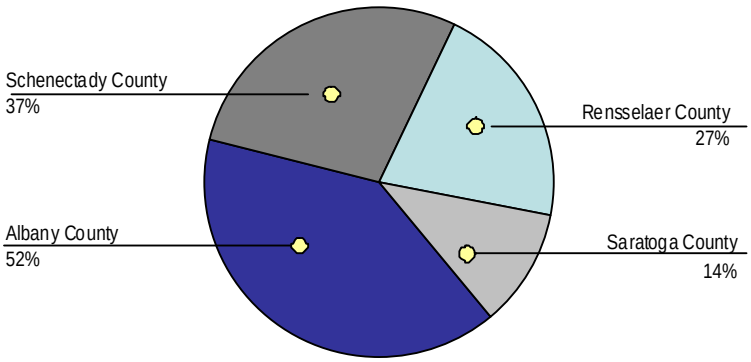
- CDTC established its Urban Issues Task Force to identify and elevate the importance of problems of older cities with pressing social demands.
- It adopted a policy that creates budgetary space in TIPs and UPWPs for community compatibility and economic development projects initiatives targeted at EJ community concerns
- CDTC's policy of distributing TIP monies for projects based on need rather than jurisdiction has had the effect of increasing the access of older cities to rehabilitation and revitalization projects, often in EJ areas
- CDTC is developing the NY 5 corridor as an early priority for advanced transit service rather than long-distance commuter corridors
- CDTC uses innovative performance measures which elevate non-traditional concerns such as community compatibility with transportation, developing a sense of place, promotion of economic health, and noise exposure.
- CDTC's has decided to put off "big ticket" initiatives until certain conditions are existent, thus concentrating scarce transportation resources on preservation, economic vitality, transit and quality of life projects.

In the development of *2030 New Visions* plan, the MPO explored questions of regional form, social equity and policy regarding highway expansion to address growing suburban congestion. These questions impact the EJ communities and CDTC has proactively sought out their valued input.

One of the more telling aspects of the CDTC mindset is its adoption of its definition of a Quality Region. The definition, developed by the Quality Region Task Force (membership in the task force included minority representatives, board members from ARISE and other urban advocates) was cited previously but it bears mentioning again:

> *"A QUALITY REGION develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change. A quality region*

Figure 6: Environmental Justice Target Populations



Reference data:
http://www.cdtcmpo.org/policy/june07/ej-doc.pdf

creates economic, educational, social, cultural and recreational opportunities and provides safe neighborhood environments and housing choices for all; protects sensitive environmental resources and fosters community identity and "a sense of place" in all parts of the region." (Emphasis added)

The *2030 Plan* specifically takes note that CDTC's intention is to address the weaknesses identified – the disparities, the urban decline, the mixed success of suburban development. The above definition emphasizes the need for quality throughout the region and the need for ensuring that benefits extend to all residents.

Among the big ticket and big idea subjects explored during the *2030 Plan*'s development was noise mitigation. This is the regional system level follow-up to NYSDOT Region 1's technical analysis of expressway noise exposure in the Capital District. Quite often, noise walls tend to be constructed in suburban, non-minority areas. However, NYSDOT conducted a study that identified the most significantly impacted areas in the system – not just the Northway community that wanted reduction – but city areas also. Much of the excess noise exposure falls on minority and low income urban neighborhoods. Mitigation concepts have been explored and a "Regional Noise Program" with an emphasis on mitigation of noise in EJ areas is one of the candidate big initiative programs for ongoing exploration.

Finally, we would like to mention a significant relationship that has developed with ARISE (*A Regional Initiative Supporting Empowerment*), which is a faith-based community organizing project covering the four counties. ARISE is a broad alliance of different interest groups-environmentalists, inner city residents and leaders, business, government, farmers, labor, suburbanites, and faith communities working together across regional, racial, and economic boundaries. Its purpose is to bring together congregations and other membership organizations in the Capital Region as a strong coalition in order to locate areas of shared community concern, define solutions and develop a voice for positive change, especially in distressed neighborhoods. ARISE currently has over 35 member organizations.[106]

CDTC assisted ARISE in several ways over the past several years, recognizing the group's potential to bring minority and other EJ populations' needs to the regional table.[107] In fact, CDTC Staff Director John Poorman was honored as ARISE's "Ally of the Year" in 2003.

Linkage Studies

The *Linkage* program (see *page 27)* is a CDTC funding program that provides financial and technical assistance to local communities and not-for-profit agencies for local transportation studies. Regarding the program's relationship to EJ, we note that the solicitation of candidate projects is sent to every municipality and every entity of the Enhancement list. CDTC has funded studies proposed by the Albany Housing Authority and the W. Haywood Burns Environmental Center in Albany to address EJ concerns to communities. The majority of Linkage studies are in the region's cities and 82% of all Linkage studies address EJ target areas.[108]

Distribution of TIP Projects

With CDTC's before-mentioned investment principles and strategies, together with close linkages between projects and the *Plan*, CDTC produces a more balanced TIP than otherwise would be the case. In looking at the TIP in existence when the EJ document was adopted in 2007, there were 246 projects on the TIP. Forty-eight percent (117) of these projects are located within EJ target areas. Of these, approximately sixty-eight percent are within one of the region's cities, with over 50% in the City of Albany. Apart from the initial disruption caused by construction work, overall the TIP projects enhance safety, accessibility, and the quality of life in EJ areas. The TIP did not contain any major transportation project with significant negative EJ impacts**.** Only 31% of new highway construction projects impact EJ residential areas, and the impacts are predominantly positive.

Transit and urban and transit-related ITS initiatives have received explicit attention. This has led to use of highway financing for projects that are historically a concern of EJ communities - the major CDTA fleet replacement, acquisition of real time information displays, GPS devices, and Transit Signal Priority treatment on the NY 5 corridor and Washington and Western Avenue corridors – all within EJ areas.

Coordinated Public Transit-Human Service Plan

SAFETEA-LU's introduced a new planning requirement for developing a comprehensive regional human service transportation plan. Projects selected for funding under the Section 5310 Elderly Individuals with Disabilities Program, the Job Access and Reverse Commute (JARC) Program, and the New Freedom Program must be "derived from a locally developed, coordinated public transit-human services transportation plan", and the plan must be "developed through a process that includes representatives of public, private and nonprofit transportation and human services providers and participation by the public." The regulations require that said plan is to be coordinated and consistent with the metropolitan planning process.[109] CDTC staff took the lead in satisfying this requirement.

- **Job Access and Reverse Commute**

The Capital Region Access to Jobs Committee was convened in 1998 as part of an effort to develop short and long-term employment and transportation needs for low-income population and public assistance program participants. The Committee is comprised of CDTC, Social Services Department of Albany, Rensselaer, Schenectady, and Saratoga counties, public and private sector employers, CDTA, county job training agencies, and others. The Committee works collaboratively to identify goals and objectives and to implement the Job Access Program, which is funded through the NYS Temporary Assistance to Needy Families (TANF) grants, Community Solutions for Transportation funds, and FTA's Job Access Reverse Commute (JARC). The program takes a regional approach towards providing access to jobs for low-income people and builds upon an existing public transportation system. It provides innovative service options, such as community trip planners, in an effort to provide access to transportation services to as many low-income people as possible. The community trip planners program places people at specific stops to assist customers with job placement. In 2002, the CDTA received the Association for Public Transportation Agencies (APTA) "Welfare to Work" Award for this program.

- **New Freedom**

SAFETEA-LU created a new funding program, called New Freedom, to encourage services and facility improvements to address the transportation needs of persons with disabilities that go beyond those required by the Americans with Disabilities Act. The New Freedom Program grew out of the New Freedom Initiative under Executive Order 13217**,** "Community-Based Alternatives for Individuals with Disabilities".

The designated recipient of New Freedom funds in urbanized areas over 200,000 in population has the principal authority and responsibility for administering the New Freedom Program. In the Capital District, the "designated recipient" is the CDTA. The designated recipient is responsible for conducting the competitive selection process in cooperation with the MPO and awarding grants to subrecipients. Funds are allocated through a formula based upon population of persons with disabilities.

- **Section 5310**

FTA's 5310 program was established for meeting transportation needs of elderly persons and persons with disabilities where public mass transportation services are otherwise unavailable, insufficient, or inappropriate. It allows for the

procurement of accessible vans and busses; communication equipment, and computer hardware and software for eligible applicants. NYSDOT, through its Transit Bureau, administers the program in New York State. NYS has a well-established process, which includes an inter-agency review committee, for selecting fund grantees on a discretionary basis. CDTC is one member of the review committee that annually reviews grant applications for this area. CDTC's involvement ensures that the Section 5310 funding awards are consistent with the criteria and recommendations set forth in the coordinated plan.

It should also be noted that, during the development of the *New Visions Plan*, the CDTC commendably used a separate task force to put forward actions to respond to aging issues and coordination of special transportation services. A regional transportation brokerage activity was then established with federal funds through TIP action with a mission to integrate Medicaid transportation services as a first step towards a general purpose brokerage system to extend non-traditional transit services to suburban areas. The brokerage is now in its sixth year of operation (still focused on Medicaid services).

- **The Coordinated Plan**

To address the new requirement of a coordinated public transit-human service plan, CDTC staff expanded the existing JARC regional committee to include representatives from additional stakeholder groups and used the expanded committee to guide staff work in developing the coordinated plan. The Regional Transportation Coordination Committee (RTCC)'s role is to help develop the coordinated plan, identify areas of need and ensure that JARC, New Freedom and Section 5310 funds are spent appropriately.

The coordinated plan recommended the continuation of the existing successful JARC activities that CDTA has been conducting since 1998; consequently the JARC monies were awarded to CDTA through this new process. These activities include county-based Travel Trainers, use of the Access Transit brokerage for "safety net" trips, and overall mobility management program activities. CDTC has just recently solicited for the New Freedom program. The regional coordination committee will evaluate and rank the New Freedom applications and present their recommendations to the Planning Committee.

The RTCCR will meet quarterly as the coordinated plan specifies. The RTCC will be involved in the evaluation of the 2008 Section 5310 applications; CDTC staff will take the lead in this evaluation process. CDTC staff will prepare, schedule and conduct a "coordination" forum for Section 5310 applicants and recipients as specified in the coordinated plan.

Future Efforts

CDTC's anticipates future EJ analyses to understand additional aspects of transportation system performance in EJ areas and compare that performance to that elsewhere. CDTC will also continue to explore improved participation of traditionally under-represented groups in the transportation planning process.

Linking Planning & the Environment

"The metropolitan transportation plan shall, at a minimum, include… :A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The discussion shall be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation" 23 CFR §450.322(f)(7)

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AFETEA-LU places several new requirements on both the content and process of developing long-range regional transportation plans. Section 6001 included the following changes relating to consideration of environmental issues in the planning process:

- Metropolitan and long-range transportation plans must be developed in consultation with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation, as appropriate. The consultation must include a comparison of transportation plans with available state conservation plans or maps and inventories of natural or historic resources.
- Metropolitan and long-range transportation plans must include a discussion of potential environmental mitigation activities, to be developed in consultation with federal, state, and tribal wildlife, land management, and regulatory agencies.
- The planning factor related to environment was expanded to promote "consistency between transportation improvements and state and local planned growth and economic development patterns."

Quality Region

CDTC has adopted a holistic approach to the region's overall quality. When considering the environment, CDTC considers both the natural and human environment**.** Their adopted definition of a Quality region is:

> ***QUALITY REGION*** *develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change. A quality region creates economic, educational, social, cultural and recreational opportunities and provides safe neighborhood environments and housing choices for all; protects sensitive environmental resources and*

fosters community identity and "a sense of place" in all parts of the region.

The new Federal regulation is catching up with CDTC in this viewpoint.[110]

Following the release of SAFETEA-LU, CDTC reviewed its planning process to evaluate how well it met the new environmental requirements. CDTC then committed to pursue some enhanced actions and strategies shown on page 104.

Consultation

Prior to the SAFETEA-LU requirement, CDTC already had extensive contacts with organizations and groups involved in environmental/land use planning issues. Still, CDTC decided to raise the bar even higher. They decided to:

❖ Create a mailing list of the appropriate agencies and groups responsible for land use management, natural resources, environmental protection, conservation and historic preservation within the region. This list will be used to contact these agencies or groups for input on potential environmental mitigation activities relative to the regional transportation plan discussed in this report, as well as on the plan itself when complete. This list will be continually refined.

❖ Obtain a series of maps and geographic information system files containing information on various natural and cultural resources and protected open space within the four-county CDTC planning area. This information identifies: heritage areas; historic places, trails & byways; woodlands; natural habitats; agricultural areas; existing farms; water areas; constrained lands; and protected open space areas within the region.

❖ Work cooperatively with the CDRPC, CEG, and the University of Albany Department of Geography and Planning to explore the potential consequences related to alternative growth and development pattern scenarios in the Capital District. This has produced a discussion document to provide the basis for a constructive regional and community dialogue about what policy options may be worth pursuing to manage the direction of future growth to achieve sustainable development in the Capital Region.

What is a Planning & Environmental Linkage?

Planning and Environment Linkages represent an approach to transportation decision-making that considers environmental, community, and economic goals early in the planning stage and carries them through project development, design, and construction. This can lead to a seamless decision-making process that minimizes duplication of effort, promotes environmental stewardship, and reduces delays in project implementation.

FHWA Planning and Environment Linkages website
http://environment.fhwa.dot.gov/integ/index.asp

Consistency Between TIP and State & Local Growth and Economic Development Plans

As discussed in the *Transportation Improvement Program* section of this report, CDTC employs an exacting process that marries investment decisions to the adopted goals and principles of its vision of a quality region. CDTC has adopted 31 planning and investment principles to guide its decision-making. As statements of principle, they provide a framework for funding decisions, project selection criteria, and corridor-level planning. The original *New Visions Plan* (1997) contained 25 principles; *New Visions 2030* articulated six new principles, one of which is environmental stewardship**.** This is done in three specific principles that Link Transportation Investments to Land Use Planning:

26) Transportation investments will encourage residential and commercial development to locate within an Urban Service Area defined for the Capital Region.

27) Environmental stewardship is one of CDTC's emerging roles and is crucial to the success of and quality of life in this region. Transportation investments must improve or

preserve the region's cultural and natural environment.

28) Transportation investments will not encourage development in environmentally sensitive areas and will help to preserve rural character.

To further guide the carrying out of the principles of the Plan, CDTC adopted 13 specific strategies and 47 specific actions. Actions #37-40 are meant to further ensure that the environmental impacts of transportation actions are considered while creating a more sustainable transportation system:

37) Support the deployment and use of Clean Fuels and Clean Fuel Technology in the Capital Region.

38) Continue to update CDTC's Title VI/Environmental Justice (EJ) document and consider the impacts of planning, project programming and project design on CDTC's Title VI/EJ populations.

39) Specifically consider environmental and cultural resource impacts of transportation planning, project programming and design.

40) Explore Green Corridors and opportunities to reinforce open space protection efforts in the Capital Region.

For further details of CDTC's exemplary efforts to ensure consistency between transportation investment and local plans, see the *Land Use & Regional Development* section of this document.

Discussion of Possible Mitigation Measures in Plan

The *New Vision 2030 Plan* and CDTC's investment principles and strategies encourage the protection of open space and environmentally sensitive areas, moderation of growth of VMT to support energy conservation and air quality, and identification of opportunities for larger than project-specific mitigation of transportation impacts.

As discussed in the *Air Quality* section of this report, CDTC uses a unique approach to plan for the region based on 20-year *target* levels of traffic rather than trend line traffic. The use of target levels demonstrate CDTC's confidence that the *Plan* will be successful over time in reducing the growth in vehicle miles of travel (from the trend) through improvements in street design, community structure and regional settlement patterns. Projects are thus designed for compatibility with these planned – sustainable – traffic levels. Because CDTC uses these lower traffic estimates in their project development activities, together with risk management evaluations, projects avoid the overbuilding of infrastructure that might lead to – encourage - unnecessary land consumption, including encroachment on the region's wetland and prime farmland areas.

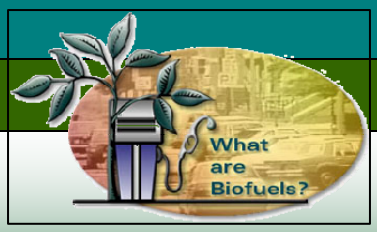
To enhance its consideration of environmental considerations more fully during the planning process, CDTC has decided to use geographic information system information (GIS) to overlay limits of candidate TIP projects against natural and cultural resources mapping. This would aid in identifying those projects that may have certain types of environmental impacts, thereby providing up front opportunities to avoid, minimize, or mitigate potential impacts at this early stage. Mapping potential projects on a regional scale will result in potential opportunities for mitigation banking and/or joint mitigation activities. Joint or multiple-project mitigation includes techniques such as mitigation banking, in-lieu fee arrangements and conservation banking.

As noted in other sections of this document, CDTC insists on community-oriented, environmentally-sensitive planning prior to consideration of any significant project. When reviewing candidate projects for funding, CDTC insists on consistency with local planning. Further, CDTC's commitment to habitat preservation has been cited as a national model by the USGAO. This overall approach, coupled with CDTC's conservative budget for system expansion, limits the basic need for extensive environmental mitigation in the *New Visions* plan.

Additional Actions in CDTC Process

Following its overall review of how its process incorporates environmental considerations and linkages, CDTC adopted the following strategies to enhance its already commendable efforts:

- Explore expanding CDTC's membership to restore the New York State Department of Environmental Conservation (NYSDEC) as a member to enhance communication and information sharing regarding the region's critical environmental issues, environmental resources, and to ensure broader coordination of land use/transportation planning efforts. (NYSDEC withdrew from active participation years ago.)
- Use geographic information systems (GIS) to overlay limits of candidate TIP projects, of project types that have a significant potential for environmental impacts, against natural and cultural resources mapping as part of the evaluation process for candidate projects during the next and subsequent TIP updates.
- Coordinate with NYSDOT and NYSDEC and others on updating this mapping and corresponding GIS databases.
- Explore a Green Corridors approach modeled after Saratoga Green Infrastructure Plan. Green corridors can help protect existing riparian buffers and woodlands, improve water and air quality, and lower storm water management costs.
- Explore recommendations from the Open Space Institute's report and from NYSDEC's Open Space Plan, and other resources (county farmland protection plans) to see where CDTC can reinforce those efforts as appropriate.
- Promote well-designed transportation and land development projects through an integrated planning and design approach. Explore creation of an Integrated Community and Transportation Design toolkit to ensure pursuit of enhanced environmental quality for projects emerging from the plan. This toolkit could be applicable to other issue areas as well, such as Safety, and could organize best practices at the regional, community, and site levels. Areas of research in developing this toolkit could include benefits of low impact development, benefits of increasing tree coverage, "green" parking lot design, etc.
- Revise the TIP candidate project justification package, including the section in which preliminary identification of potential environmental issues is made. This revision will be done consistent with Appendix A to Part 450 of SAFETEA-LU regarding linking the transportation planning and NEPA process/project development, to ensure candidate project scopes as provided in project justification packages are descriptive enough to reflect project purpose and need consistent with New Visions principles and environmental quality goals.
- Expand project descriptions in the TIP or create a companion document to the TIP that contains sufficient information to convey the scope and expectations for the project, including confirmation of consistency with New Visions principles. Broad access to such information will help keep the chain of project intent and details ("scope") alive as projects move through the project development process. Consistent with how TIP project scope changes are currently handled, if a project sponsor desires to change the project scope or deviate from explicit expectations, such change must be approved by the Planning Committee.



Energy & the Climate

"The metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors: … Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns" 23 CFR §450.306(a)(5)

The metropolitan planning regulations require MPOs to promote energy conservation during its deliberative processes. The consideration of Climate Change and Greenhouse Gases (GHGs) in the transportation planning process is not a Federal requirement at this point.

New York State MPOs do estimate energy and greenhouse gas analyses in TIPs and Plan documents, which makes them almost unique in the country in their inclusion thereof. This is required by State mandate.

State Energy Plan

In June 2003, a new State Energy Plan became law in New York. As part of that Energy Plan, MPOs are required to perform energy and greenhouse gas emissions analyses on TIPs and Plans. The goal is to hopefully reduce energy usage and GHG emissions by 5% below 1990 levels by 2010 and 10% below 1990 levels by 2020 through informed decision-making. The Energy Plan commits the State (and MPOs) to:

- Include consideration of CO_2 production in State Environmental Quality Review Act (SEQRA) analyses and in Statewide planning processes.
- Work with regional and local planning organizations (e.g., MPOs) to analyze energy and emissions from transportation plans and programs (i.e. Plan and TIPs).
- Commit to a Statewide GHG emissions targets with near term (2010), mid-term (2020) and long-term (2050) stages.
- Provide additional information to justify any TIP, Plan or project that shows an increase usage of energy or an increase emission of GHG.

In June 2001, Governor Pataki formed a Greenhouse Gas Task Force comprised of representatives from industry, environmental organizations, community leaders and state government. The GHG Task Force was charged with advising the Governor on specific actions and policies to achieve major GHG reductions across all sectors of the economy. The goal was to make New York a model of how states and the nation can reduce GHG emissions while supporting sustainable economic growth. The recommendations of this Task Force were releaseed in draft *New York State Greenhouse Gas Action Plan* ("Action Plan") in June of 2001. This

Action Plan fed into the State Energy Plan which was developed by the State Energy Planning Board. NYSDOT had representation on both the GHG Task Force and the Energy Planning Board.

In December 2001, the New York State Energy Planning Board released the draft New York State Energy Plan and Draft Environmental Impact Statement in anticipation of the forthcoming public comment period. Never a "front-page above the fold" type of issue back then, there was scant reporting about it in the news media and its availability was not widely known.

After the adoption of the 2002 Energy Plan, NYSDOT issued guidance on how to conduct energy and GHG analyses on TIPs and Plans. Given the amount of initial confusion about, and the resistance to, these guidelines at the MPO levels, it appears that little/no dialogue occurred with the MPOs prior to finalization of the Energy Plan and the guidance thereon.

TIP and Plan Analysis

After the Energy Plan became State law, the NYSDOT's Environmental Analysis Bureau (EAB) developed guidelines[111] on how the energy and GHG analyses in TIPs and Plans should be done; this includes capturing both the direct energy (energy that will be used after the project is open) and the indirect energy (energy needed to build the project). As previously noted, this new requirement took most by surprise and it was initially resisted because the analysis was quite involved; however, said analyses now have become fairly routine.

The energy and GHG analysis of TIPs and Plans follows a few basic steps:

Step #1 – Identification of all Non-Exempt and Regionally Significant Projects

The first step in this process was determining which projects would be subject to analysis. All of the projects included in the TIP and the Plan are reviewed for their significance in affecting energy consumption; projects that meet the air quality conformity *non-exempt* classification are almost synonymous with energy-impacting projects. In general, projects that maintain current levels of service or capacity, such as safety improvements, resurfacing, bridge repair, or bus replacements are presently considered exempt from the energy analysis. Similarly, projects that result in operations improvements, but without an increase in capacity (such as intersection widening) were also considered exempt and excluded from the analysis. Since MPOs normally perform the air quality conformity analysis at the same time as the energy analysis, this identification of affected projects is not an added burden.

Non-exempt projects include highway and road projects that increase capacity by at least one travel lane, and transit projects that change capacity on a fixed route system.

Step #2 – Travel Demand Modeling

To determine the impact of future projects, MPO uses its travel demand forecasting model (e.g.; CDTC's STEP Model). The analysis includes a Build and No-Build VMT scenarios.

Step #3 – Off-Line Model Analysis

A quantitative analysis is undertaken to account for any significant projects in the Plan or TIP that cannot be modeled in MPO forecasting model (e.g.; transit and bicycle/pedestrian transportation modes are normally beyond the capabilities of the software.) These off-model VMT reductions are then factored into the normal VMT to better demonstrate the Build scenario.

Step #4 - Direct Energy Analysis

Direct energy represents the energy consumed by vehicles using a transportation facility. Direct vehicle energy is calculated using the VMT Fuel Consumption Method as described in NYSDOT Guidance.[112] The calculations are based on VMT (not seasonally-adjusted) reported by the No-Build and Build scenarios and a calculated vehicle type. Three vehicle types are included in the energy analysis: light duty vehicles, medium trucks, and heavy trucks. Each of the three vehicle types have a fuel economy rate per year based on the fuel type used.

For each scenario (build verses no-build), the total VMT is multiplied by the percentage of

each vehicle type to determine vehicle type VMT. That vehicle type VMT is then divided by the fuel economy rate to calculate the number of gallons of fuel used. These fuel consumption values are then converted to British Thermal Units (BTUs) by multiplying each gallon by 125,000. Finally, the total direct energy consumption (in BTUs) is summarized for all vehicles in each scenario.

Step #5 – Indirect Energy Analysis

Indirect energy represents the energy required to construct and maintain the transportation system. For this analysis, per EAB guidelines, only the energy used in construction activities for Regionally Significant or Non-Exempt projects, including new construction, reconstruction, rehabilitation, and widening was analyzed. Certain nonexempt projects, such as ridesharing, include no energy-consuming construction or maintenance activities, and therefore, an indirect energy calculation is not applicable.

The intent of the indirect energy calculations is to measure the energy used in the construction of the projects included in the Build scenario. The indirect energy value of the No-Build scenario is zero; therefore, it is not possible to compute the percentage difference between the two scenarios.

Indirect vehicle energy was calculated using the Lane Mile Approach as described in *Subtask 12a: Energy Analysis Guidelines for TIPs and Plans*. The number of lane miles for each project was multiplied by a rate of Construction Energy Consumed per lane mile and the total Construction Energy Consumed, in BTU's, was calculated.

Some MPOs believe that the indirect energy assessment procedure is not as important as the direct energy assessment. They reason that roughly the same amount of money would be spent on transportation investments regardless of how these expenditures were distributed within each particular planning scenario. Thus, estimates of energy use for construction would be roughly the same. In other words, if an MPO did not spend money to build 2 miles of roadway, they would likely spend that same money to build 30 miles of bikeway or to resurface 30 miles of existing roadway. Each of these cases, they argued, would lead to roughly the same estimated energy consumption.

Step #6 – CO_2 Emissions Estimates from Direct Energy Consumption

Carbon dioxide (CO_2) is the surrogate for all GHGs in these analyses. CO_2 emissions are calculated as described in *Subtask 12b: Greenhouse Gases (CO_2) Emissions Estimates Guidelines for TIPs and Plans*. The Direct Energy consumed (by vehicle type) is multiplied by the Carbon Emission Coefficients for both gasoline and diesel engines and then by a factor representing the amount of carbon that is oxidized. This process creates a value representing total tons of CO_2 emitted.

Step #7 – CO_2 Emissions Estimates from Indirect Energy Consumption

The indirect energy consumed as a result of the Build scenario that was determined in Step #5 is multiplied by the Carbon Emission Coefficients for diesel vehicles and then by a factor representing the amount of carbon that is oxidized, resulting in the total tons of Carbon emitted.

Results of Energy and GHG Analyses

The energy and GHG analyses at present are a "build' verses "no-build" comparison, not "build" less than a certain date (e.g.; 2002). So far, the analyses of the TIPs and Plan have always shown that the "build" scenarios would use less total energy and emit less GHG than the "no-build". For this reason, some MPO representatives are unsure of the utility of the energy assessment in reducing energy and GHG emissions. Others, however, believe that conducted the analysis could provide useful information to inform planning decisions.

Despite the capacity of the energy analysis process for raising awareness, it is unknown whether estimates of energy use and CO_2 emissions would, by themselves, influence transportation investments. Policies are more likely to be implemented in response to traditional air quality concerns (e.g., ozone).

Can transportation and land use planning reduce the rate of global climate change? Yes or no?				
		Market Forces	Macro Policy	Local Planning
Can it	Reduce climate change?	No	Yes	Yes
	Mitigate impacts of?	Yes	Yes	Yes
Will it?	Reduce Climate change?	No	Maybe	No
	Mitigate impacts of?	Yes	Maybe	Maybe

John Poorman, *Climate Change and Transportation and Land Use Planning*, October 2006

CDTC & Climate Change Considerations

CDTC does not consider the potential of climate change per se in the planning process. However, Staff Director John Poorman has developed a very interesting presentation on the subject of Climate Change, Land Use and Transportation Planning in the event that an MPO might want to specifically consider Climate Change in the planning process.

"I would suggest that substantial tempering of the rate of climate change will not be likely to occur from the range of items I am labeling "transportation and land use planning." On the other hand, never say never to the macro policy options being implemented at a scale with meaningful impacts. This distinction is similar to what many of my transportation planning colleagues struggle with in air quality conformity planning. Consider this: a simple 5 mpg increase in CAFÉ fleet standards would reduce GHG emissions by roughly 20% within 10 years. On the other hand, doubling transit ridership in the United States would reduce GHG emissions by less than 5%."

"In sum, I suggest that we carefully dissect the question. Separate the can? from the will? Distinguish the ability to mitigate actual climate change from the ability to adapt to substantial change if/when it occurs. Examine market, policy and planning forces and tools separately. And in all thoughts, do not suspend what we know about physical, economic, political and human behavior."

NYSDOT & Climate Change

Taking the cue from the current and two previous Governors, NYSDOT Commissioner Astrid Glynn recently announced a series of environmental initiatives, including a charge to the newly created Climate Change/Energy Efficiency Team to develop transportation policy strategies to reduce greenhouse gas emissions produced by the NYSDOT and the state's transportation sector. The Climate Change/Energy Efficiency Team was initiated in September 2007 to establish new policies that will lead to a reduction in the air pollutants responsible for global warming. Five work groups have been established to make recommendations for action. In the process, the department has committed to:

- Instituting and promoting policies and strategies that will lead to reducing reliance on petroleum products and greenhouse gases emanating from transportation;
- Changing the way the department designs, constructs, rehabilitates, maintains and operates the transportation infrastructure under its control to reduce the amount of greenhouse gases produced by transportation. This includes explicitly considering climate change and energy efficiency when transportation plans are prepared, the capital program is developed and project alternatives are selected;
- Changing the way the department operates as a state agency and employer to reduce the amount of petroleum products it uses in delivering services to the public and the amount of greenhouse gases emitted;

- Assisting state efforts in forecasting energy constraints and the implications to New York State's quality of life and economy, particularly from a transportation perspective; and

- Implementing strategies that will adapt the transportation infrastructure to withstand the impacts of climate change, such as changing weather patterns, and help the department and society deal with the anticipated effects of petroleum constraints.

Capital District Clean Communities

The Capital District is participating in the U.S. Department of Energy's (DOE) "Clean Cities" program, the *Capital District Clean Communities* being the vehicle of participation. Clean Cities coalitions are voluntary, locally based government/industry partnerships to mobilize local stakeholders in an effort to expand the use of alternatives to gasoline and diesel fuel, accelerate the deployment of Alternative Fuel Vehicles (AFV), and build a local AFV refueling infrastructure.[113] Presently, six urban areas of New York State have joined the Clean Cities Program.

Local efforts to participate in the federal *Clean Cities* program were started by Schenectady County in early 1996, forming a partnership with thirty-nine organizations, including Niagara Mohawk, NYSERDA, the New York State Thruway Authority, CDTC, the CDRPC, the Environmental Business Association, Environmental Advocates and others. This partnership became known as the *Capital District Clean Communities*.

We note that CDTC is the <u>only</u> MPO in New York to directly host the Clean Communities Program in its region, another indication of CDTC's foresight. CDTC received $10,000 in 2007 from USDOE to aid in the funding of the Clean Communities initiative. The assistance will increase to $12,500 in 2008 and will be at least that amount in 2009. CDTC (Deborah Stacey) has commendably assumed the lead role in this coordination effort here in the Capital District.

The coalition group meets quarterly at CDTC's offices to work on the program plan and to implement the national Clean Cities goals. Today, there are approximately 35 active members. The coalition has also sponsored alternative-fuel events.

The DOE has recognized the Albany-Buffalo portion of the New York State Thruway (I-90) as a "Clean Corridor", one of twelve such corridors in the Country. Four Clean Cities coalitions (Buffalo, Rochester, Syracuse and Albany) are along the corridor. The coalitions, along with the assistance of the New York State Energy Research and Development Authority, NYSDOT, New York State Clean Fuel Vehicle Council, and the Thruway Authority, have developed a strategic plan to expand the accessibility and availability of alternative fuels along and near the New York State Thruway (I-90). Future linkages might be made with eastern coalitions along I-90 such as Boston, and western coalitions such as Toronto and Cleveland. Presently, the Clean Corridors concentrate on highway travel; eventually, it may be possible to include coordination with Amtrak (Empire Division) and the CSX Freight system, which runs parallel to the Thruway.

CDTC is congratulated for its decision to lead this effort in the Capital District.

Some Thoughts on Climate Change Impacts on Transportation Planning

The federal regulations require a consideration of energy in the metropolitan planning process, but the regulations as yet do not require consideration of "climate change". Regarding the latter, there are certain things we do know and other things are only speculation at this point. We know sea level will continue to rise – whether the greenhouse effect intensifies or not - because it is warmer today than the last Ice Age; MPOs along the coast will have to take this into account. The rate of rise is debatable, but we expect at least the trend for the past 400 years: about 9 inches per century. In the long-term, changing coastlines and rising sea levels could require relocation of roads and rail lines, or some protective measures (barriers) to keep the water away from the roads. It could also have

consequences for port facilities and coastal shipping. Underground tunnels could be subject for more flooding in these areas. Storm surges in these areas would be commensurate with sea level rise itself – but in this case, planning considerations would probably fall more under the "security" element. The scientific opinion on whether the frequency & intensity of storms (e.g.; hurricanes) will increase is divided.

But, the Capital District is not in a coastal area or an area prone to tornados or major earthquakes. Should it begin to evaluate the impact of that rising temperatures might impact on asphalt or concrete roads, rail tracks, airport runways? Such impacts would already show up in long-term trends on infrastructure condition, and CDTC is already closely monitoring this infrastructure. Will climate change potentially alter travel and land use patterns or settlement trends? CDTC is already monitoring these statistics. And, CDTC's exemplary process is concentrating on preservation, technology, land use planning, demand management and energy conservation.

Climate science itself is a relatively a new field of endeavor (about 15 years old) and there is disagreement over many aspects of the science at present. Even the term 'greenhouse effect' is a misnomer, because the greenhouse gases do not act either like the glass in a greenhouse nor like a blanket around the earth. In a real greenhouse, the enclosed structure prevents the cooler outside air from mixing with the warmer air inside (i.e., the glass modulates convection) and thus the greenhouse heats up. In the atmosphere, however, the 'greenhouse effect' works by modulating radiation, not air flow.

Eventually, the science will lead to agreement among the various opinions; at the present – media claims to the contrary - there is no scientific "consensus" on these issues. Case in point: at the May 19, 2008 meeting of the National Press Club, it was announced that to date 31,000 American scientists, over 9,000 of whom have doctoral degrees in climate related sciences, have signed the Oregon Petition stating that:

> *"There is no convincing scientific evidence that human release of carbon dioxide, methane or other greenhouse gases is causing, or will cause in the future, catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate..."*[114]

In addition to uncertainty as to the degree of human causation in an increased rate of warming, the United Nations Intergovernmental Panel on Climate Change admits that long-term climate forecasting is unreliable: "In climate research and modeling, we should recognize that we are dealing with a coupled non-linear chaotic system, and therefore that the long-term prediction of future climate states is not possible."[115] (emphasis added)

The greenhouse effect is a natural and necessary phenomenon for life on this planet. Everyone agrees that the greenhouse effect is real – and necessary. The real Climate Change debate revolves around four basic questions:

1. Is the earth's climate significantly warming?
2. If so, are we (humans) responsible for the increased warming by our GHG (CO_2) emissions?
3. Will the additional anthropogenic GHGs in the atmosphere and the associated warming be seriously detrimental?
4. How much resources ($$$) are we willing to spend before we have definite answers to #1, 2, 3?

We do know that warming will probably continue, but its rate is unsure. Significant warming would have both beneficial and harmful impacts. It would occur primarily in the northern and colder regions and at night; the growing season will be lengthened (allowing more biofuel production).

With the uncertainty surrounding the magnitude of temperature increases and of the human contribution to an increase in the global warming intensity, how should an MPO approach the discussion? Frame the discussion in terms of Energy. Mankind's main contribution to GHGs in the atmosphere comes from using fossil fuels as energy - everyone agrees. We can reduce GHG emissions through policies that concentrate on energy conservation and efficiency.

Energy efficiency and self-sufficiency are laudable goals in and of themselves:

- Stewardship of the planet
- National security
- Conservation of resources.

By utilizing energy more efficiently, and simultaneously pursing new energy sources (e.g., hydrogen), we will also reduce our CO_2 emissions – whether or not they are significantly contributing to an intensifying greenhouse effect.

Uncertainty

CDTC has a section on the *New Visions 2030* website entitled "Uncertainty?": *What Does New Visions Say About Uncertainty About the Future?* "History has shown that it is difficult to forecast future conditions accurately. Changes in technology often make rapid inroads into daily life (cell phones and computers, for example). Political events are also difficult to anticipate and the climate, petroleum supplies and the global economy may be changing in ways that are also hard to predict."[116]

It's always prudent to keep things in historical perspective. In 1880, there were 120,000 horses in NYC; 15,000 died every year. The transportation "pollution" amounted to 2.6 million lbs of manure per day and 150 billion flies per year, each a potential spreader of germs. The "solution": the horseless carriage. In 1946, the Electronic Numerical Integrator and Computer (ENIAC) was unveiled. ENIAC was one thousand times faster than any other calculating machine to that date. It contained 17,468 vacuum tubes, 7,200 crystal diodes, 1,500 relays, 70,000 resistors, 10,000 capacitors and around 5 million hand-soldered joints. It weighed 27 tons, took up 1800 square feet, and consumed 150 kW of power. Today – a chip of silicon measuring 0.02 inches square holds the same capacity as the ENIAC. Our ability to anticipate technological progress over the next 50 years is almost impossible.

CDTC has tried to incorporate *uncertainty* into its processes. Indeed, uncertainty was a central force in organizing a national "Colloquy on the Coming Transformation of Travel" and the MPO has embraced recommendations from the Colloquy. The *New Visions Plan*, for example, downplays the use of specific future traffic forecasts and focuses more on creating flexibility and reliability in the system. *New Visions 2030* also refuses to make project-level commitments to projects 15 and 20 years away, concentrating instead on near term projects and long-term vision and resources. This approach can best be described as a "sustainable" approach – one that meets current needs and preserves options for future decision-makers.

Uncertainty is why a leading scientist offers the following wish:

> *"In the science of climate change we will never have the 'Final Answer'. I wish every one of these reports began with the line my high school physics teacher drilled into us, 'At our present level of ignorance, we **think** we know …' "*[117]

The Stone Age didn't end because we ran out of stone. The Oil Age won't end because we run out of oil. By the year 2100, we probably won't be using much fossil fuel at all. Meanwhile, energy conservation, alternate/new energy sources, land use planning, demand management and technology are keys to reduce our fossil fuel energy dependence and our emission of GHGs. CDTC's planning process is doing these things very well.

Technology and the Future

"The future transportation system is likely to undergo a number of changes brought on by changes in technology. Technology will inevitably make intercity travel faster, transit more efficient and cars easier and cleaner to drive. Many of the public transportation and technology improvements currently in development are likely to be implemented in the next ten to twenty years. These improvements will support and enhance the regional economy by creating a more efficient and reliable transportation system. Looking out to 2030, additional transportation system or technology improvements could be developed that have not yet been imagined."

CDTC, Travel Task Force Report: Public Transportation and Future Technology Impacts on Travel, January 2004

Glossary

Acronyms and Abbreviations

AADT - Average Annual Daily Traffic: Estimate of typical daily traffic on a road segment for all days of the week over a period of one year.

ADA - Americans with Disabilities Act: Federal law designed to help provide transportation services for the elderly and handicapped.

ARISE - A Regional Initiative Supporting Empowerment: a faith-based community-organizing project covering the Capital District's four counties.

ATMS – Advanced Traffic Management System (ITS)

ART – Automatic Traffic recorder

CAAA90 - *Clean Air Act Amendments of 1990*: Federal law which stresses the relationship of transportation and air quality and the attainment of national ambient air quality standards.

CBD - Central Business District: Core area of urban center where commercial activity is concentrated.

CDRPC – Capital District Regional Planning Commission

CDTA – Capital District Transportation Authority

CDTC – Capital District Transportation Committee

CDTS – Capital District Transportation Study

CEG – Center for Economic Growth: not-for-profit organization established in 1988 by a group of business, academic, and opinion leaders to promote the economic growth of New York's Capital Region.

CFR - Code of Federal Regulations: a codification of the rules and guidance published in the Federal Register by the Executive departments and agencies of the Federal Government.

CMAQ - Congestion Mitigation/Air Quality Improvement Program: category of FHWA funds to help improve air quality in non-attainment and maintenance areas.

CMP - Congestion Management Process – a process addresses congestion on the highway and transit systems; required in TMAs. This effort was formerly known as the Congestion management System (CMS)

CNG - Compressed Natural Gas - one of the alternate fuels to gasoline.

CO - Carbon Monoxide: a criteria pollutant that is the product of incomplete fuel combustion.

CO_2: Carbon Dioxide

COE - U.S. Army Corps of Engineers

CPG – Consolidated Planning Grant

CSS – Context Sensitive Solutions:

DOE- U.S. Department of Energy

EJ - Environmental Justice: effort to assure that the planning and decision-making process does not have a disproportional high impact on minority and low-income populations.

EPA - U.S. Environmental Protection Agency

ESTA - Empire State Transportation Alliance

FHWA - Federal Highway Administration

FTA - Federal Transit Administration

GEIS – Generic Environmental Impact Statement

GHG – Greenhouse Gas

GPS – Global Positioning System

HBRR - Highway Bridge Replacement and Rehabilitation Program: category of FHWA funds.

HC - Hydrocarbons: gaseous compounds made of carbon and hydrogen (used interchangeably with VOC).

H.E.L.P. – Highway Emergency Local Patrol
HOV - High Occupancy Vehicle: vehicle carrying a large number of passengers, such as buses, carpools, and vanpools.

HOT – High Occupancy Toll

HRTDC - Harriman Research and Technology Development Corporation

ISTEA - *Intermodal Surface Transportation Efficiency Act of 1991*: federal law passed by Congress covering federally funded highway and transit programs for the period 1992-1997.

ITS - Intelligent Transportation System: Development and use of technology to enhance ground travel, to improve safety and the environment. This includes the gathering and dissemination of traveler information, traffic management and vehicle management in an overall manner.

JARC – Job Access Reverse Commute: FTA grant program that assists states and localities in developing new or expanded transportation services that connect welfare recipients and other low income persons to jobs and other employment related services.

LOS - Level of Service: Traffic engineering term describing the operating conditions a driver experiences while traveling a particular street or highway.

MAB - Metropolitan Area Boundary: Federally approved transportation planning boundary of a MPO; the MAB covers the area presently urbanized and that area expected to be urbanized during the next 20 years – sometimes called the MPA.

MIS - Major Investment Study: Stand-alone analysis required under ISTEA for major corridor or subarea study. TEA-21 replaced the stand alone MIS requirement with the directive that the planning analyses be integrated with NEPA.

MIST - Management Information System for Transportation

MPA – Metropolitan Planning Area: the MPO's study area (see MAB)

MPP - Metropolitan Planning Program: FTA=s planning funds supporting MPOs.

MPO - Metropolitan Planning Organization: Federally mandated organization of coordinating transportation planning. Each urbanized area with a population of over 50,000 must have an MPO.

MSA – Metropolitan Statistical Area: a core area containing a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core. Defined by the Office of Management and Budget

NAAQS - National Ambient Air Quality Standards: Emissions standards established under the CAAA90 and subsequent rulings by EPA.

NEPA - National Environmental Policy Act of 1969

NHS - National Highway System: designated a priority system of highways; it is also a category of FHWA funds.

NHTS – National Household Travel Survey

NO_x - Nitrogen Oxides: a collective term for all compounds of nitrogen and oxygen.

NYSDEC - New York State Department of Environmental Conservation

NYSDOT - NYS Department of Transportation

NYSERDA - NYS Energy Research & Development Authority

NYSMPO – New York State Association of MPOs

PL - Metropolitan Planning Funds: a category of FHWA funds established specifically for metropolitan transportation planning purposes.

PM-10 - Particulate Matter with a diameter less than 10 micrometers: a criteria pollutant from many sources; diesel engines are a major contributor.

RTCC - Regional Transportation Coordination Committee

SAFETEA-LU - The Safe, Accountable, Flexible, Efficient, Transportation Act: A Legacy for Users

SCI – Shared Cost Initiative - NYSMPOs pool planning funds in order to undertake studies of topics of mutual interest that they individually might not have afforded. After a study is selected, the funds are administered by a single MPO on behalf of the group.

Section 3010 - FTA-funded discretionary program for New Starts.

Section 3037 - FTA-funded discretionary program supporting Access to Jobs initiatives.

Section 5303 - FTA-funded discretionary program supporting continuing planning activity and special transit studies.

Section 5307 - FTA-funded formula grant program for capital improvements and operating assistance to mass transit.

Section 5308 - FTA-funded discretionary program supporting Clean Fuels programs.

Section 5309 - FTA-funded discretionary program for capital improvements to mass transit.

Section 5310 - FTA-funded program for capital projects to meet the special needs of elderly and handicapped (formerly 106(b)(2)).

SEQRA - State Environmental Quality Review Act: Article 8 of the New York State Environmental Conservation Act.

SHPO - State Historic Preservation Officer
SIP - State Implementation Plan for air quality: A document required by CAAA90 to be produced and updated. The document details required levels of pollution emission reductions and sets deadlines to meet emission reduction targets.

SOV - Single Occupant Vehicle: A vehicle occupied by one person, the driver.

STIP - Statewide Transportation Improvement Program: State document combining the federally funded highway and transit projects contained in all MPO TIPs plus those projects planned in rural areas of a State.

STP - Surface Transportation Program: a category of FHWA funds.

TANF - Temporary Assistance to Needy Families: US Department of Health and Human Services program that replaced the Aid to dependant Children and several other social aid programs.

TAZ – Traffic Analysis Zone: The smallest geographical unit used in the travel-demand forecasting model.

TCM - Transportation Control Measure: Means established by ISTEA and CAAA90 to reduce single occupant vehicle use or total vehicle miles of travel (e.g., HOV lanes, new parking restrictions, tolls).

TCSP - Transportation and Community and System Preservation Program: FHWA demonstration program to help control urban sprawl.

TDM - Transportation Demand Management activities: Strategy designed to improve travel by reducing demand through techniques such as ridesharing.

TE - Transportation Enhancement: a subcategory of STP funding; set aside for strengthening the cultural, aesthetic and environmental aspects of the intermodal transportation system.

TEA-21 - *Transportation Equity Act for the 21st Century*: Federal legislation June 1998; authorizes the Federal surface transportation programs for highways, highway safety, and transit for the six-year period 1998-2003.

TIP - Transportation Improvement Program: Five-year program of capital and operating projects, as required by federal regulation.

TITLE VI - Title VI of the Civil Rights Act of 1964

TMA - Transportation Management Area: An urbanized area that contains over 200,000 population according to the Bureau of the Census.

TOA – NYS Transit Operating Assistance.

TSM – Transportation System Management: strategies to improve travel through low-cost

techniques such as signalization and channelization.

UAB – Urbanized Area Boundary: sometimes called the FHWA UAB . Boundary resulting from an MPO's smoothing/adjusting of the Census UZA

UZA – Urbanized Area Boundary: urbanized area boundary according to the Bureau of the Census.

UPWP - Unified Planning Work Program: The annual or biennial document that guides the federally funded transportation planning activities within the MPO area.

URA - Uniform Relocation Act: Federal regulations regarding land use and right-of-way matters.

USDOT - United States Department of Transportation

VHD - Vehicle Hours of Delay: Measure of delay indicating the number of hours the traffic stream is delayed.

VISUM – a flexible software system for transportation planning, travel demand modeling and network data management

VISSIM – Visual Solutions – computer language for modeling and simulation of complex nonlinear dynamic systems. Its fast execution lets you run models in real-time.

VMT - Vehicle Miles of Travel: One vehicle traveling one mile.

VOC - Volatile Organic Compounds: gaseous compounds made of carbon and hydrogen (used interchangeably with HC).

4(f) - Section 4(f) of the USDOT Act of 1966: requires special effort to preserve public parks, recreational areas, wildlife and waterfowl refuge areas and historic sites.

Notes

[1] John Poorman, *A New Model of Regional Planning in the Context of Home Rule*, February 2006.

[2] 23CFR 450.328(a)

[3] *Federal Register*, July 8, 2002, pg. 45117

[4] June 28, 2004

[5] This represents a name change by the Census Bureau following the 2000 Census. The previous name of this urbanized area was the "Albany-Troy-Schenectady, New York urbanized area".

[6] Following the 1980 Census, the Glens Falls urbanized area was recognized, the boundary of which included the Town of Moreau in Northern Saratoga County. This portion of Saratoga County is covered by the Adirondack/Glens Falls Transportation Council, the MPO for the Glens Falls urbanized area

[7] Federal Highway Act of 1962

[8] 23 U.S.C. 101(a)(37)

[9] Visible advertising signs adjacent to the Interstate system and highways designated as part of the primary system on 6/1/91, as well as signs beyond 660 feet outside of urban area, are controlled. The section does not allow new sign permits beyond 660 feet of the right of way outside of the urban area. Changing the UAB, whether from growth or census definition, affects the number of billboards allowed along the freeways. If the boundary moves out, then new signs are allowed. If the boundary moves in, then FHWA and the States have the issue of whether to grandfather or remove existing signs. *See 23 CFR § 750.704*

[10] 23 CFR 450.312(a)

[11] Ibid.

[12] 23 CFR 450.308(a) as it read prior to SAFETEA_LU. Now, 23 CFR 450.312(a) states that those boundaries that existed in August 10, 2005 shall be retained as the MPA boundary unless the Governor and the affected MPO agree otherwise.

[13] In 2003, CDTC examined the status of the town of Colonie on the board. Colonie, with a population of 80,000, is both the region's second-largest city or town (after Albany) and the region's most centrally-located community, housing the regional airport. Limiting Colonie's formal role at CDTC to the rotating at-large membership was considered inadequate by CDTC.

[14] 23 CFR 450.314(a)

[15] John Poorman officially took retirement in 2006 but is still involved with CDTC on a part-time basis and has maintained his title of Staff Director. Because of retirement rules, John can contractually work only a limited number of hours ~ 20-25% of the normal working week.

[16] 23 CFR 450.308

[17] Conceptual Design for BRT in the Western/Washington Corridor ($250,000); I-87/Route 9 Integrated Corridor Study ($500,000); Future Transportation Revenues; and the Mohawk-Erie Multimodal Transportation Corridor Study ($3,100,000).

[18] Travel Demand Management ($420,000), Corridor Management Initiative ($153,000), and Transportation Management Center Operating Costs ($20,000).

[19] Support towards the Capital District Clean Communities program hosted by the CDTC.

[20] In 2007, CDTC converted its travel demand forecasting platform from TMODEL2 to VISUM.

[21] FHWA's National Household Travel Survey (NHTS) is the nation's inventory of daily and long-distance travel. The NHTS is has been the nation's flagship survey to quantify the travel behavior of the American public.

[22] *Concepts for Assisting Local Decision Making in a Regional Context:* A Report from: Working Group E of the Capital District Transportation Committee's Quality Region Task Force, May 2007

[23] Article 9 of the NYS Constitution, plus the Municipal Home Rule Law and the Statute of Local Governments.

[24] "A QUALITY REGION develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change. A quality region creates economic, educational, social, cultural and recreational opportunities and provides safe neighborhood environments and housing choices for all; protects sensitive environmental resources and fosters community identity and "a sense of place" in all parts of the region."

[25] http://cdrpc.org/mission.html

[26] *Concepts for Assisting Local Decision Making in a Regional Context:* A Report from: Working Group E of the Capital District Transportation Committee's Quality Region Task Force, May 2007

[27] http://ceg.org/

[28] CDTC 1998, "System Goals", *New Visions for Capital District Transportation*, page 25.

[29] Ibid.

[30] Travel Task Force Report - *Demographics Market Groups: Capital District Transportation Needs in 2030*

[31] Albany County by 5.8%, Schenectady County by 1.5& and Rensselaer County by 4.5%, according the CDRPC projections.

[32] *Concepts for Assisting Local Decision Making in a Regional Context:* A Report from: Working Group E of the Capital District Transportation Committee's Quality Region Task Force, May 2007

[33] Forbes/Wolfe Nanotech Report, October 2002

[34] "What is CDTC", from website: http://www.cdtcmpo.org/whatcdtc.htm

[35] The flexibility can be found in the preamble section (under 23 CFR section 450.322) is follows: "Formally updating a plan does not require an entirely new plan but does require a review of plan assumptions, transportation trends, the development of the area, air quality considerations, systems characteristics, and extension of the forecasts to maintain a twenty year horizon. This will ensure that fundamental forces and factors affecting the operation, maintenance and development of the transportation system are adequately addressed."

[36] *Pursuing Quality in the Capital Region* A Discussion Paper for Use in the Capital District Transportation Committee and Capital District Regional Planning Commission's Quality Region Initiative prepared by the Quality Region Task Force to help guide regional policy and technical explorations - April 2003 final

[37] October 8, 2004

[38] http://www.cdtcmpo.org/rtp2030/materials/wa-doc.htm

[39] 23 CFR §450.104 definitions Fiscal constraint

[40] http://www.cdtcmpo.org/linkage/hudson/final.pdf

[41] www.thruway.state.ny.us/studies/albany/about.html

[42] ibid, "Mainline Capacity" discussion

[43] CDTC Public Participation Policy, June 2007, page 5

[44] CDTC Public Participation Policy, June 2007, page 7

[45] www.greenride.com

[46] CDTC, *Analysis of Annual Attitudinal Transportation Survey Data*, September 2002.

[47] ITS for local traffic signals, Alternative Fuel Retrofit, Bike/Ped, Intersection/Queue Jumpers/Roundabouts, Safety for Non-State Roads, New Freedoms

[48] Appendix

[49] The average value of travel time is set at $8.18 per vehicle hour used, as per NYSDOT's Higher User Cost Accounting Microcomputer Package (1981), adjusted to reflect inflation and increased minimum wage.

[50] Life cycle costs savings are a product of the percent-extended life of the facility and the mobility benefits that result from keeping the facility usable.

[51] Additional monetary impacts not included in the previous benefit/cost categories but contained in the *New Visions* Core Performance measures. Only those projects that are significant enough to affect system-level measures have these benefits calculated.

[52] 23 CFR 450.324(j)

[53] 23 CFR 450.324(e)

[54] NYSDOT Region One covers the four counties in the Capital District plus four other counties (Essex, Greene, Warren and Washington).

[55] §450.324 (h)

[56] § 450.314(a)

[57] 23 CFR 450.330

[58] 23 U.S.C. Section 120(j) The amount of credit earned is based on revenues generated by a toll authority (i.e., toll receipts, concession sales, right-of-way leases or interest), including borrowed funds (i.e., bonds, loans) supported by this revenue stream, that are used by the toll authority to build, improve or maintain highways, bridges or tunnels that serve interstate commerce.

[59] "projects listed in the committed column of the TIP are automatically incorporated into the 2007-08 element if they are not obligated by September 30, 2007, as long as fiscal constraint is demonstrated."

[60] 23 CFR 450.324(i)

[61] 23 CFR 450.324(i)

[62] Texas Transportation Institute. *Urban Mobility Study*, complete_data07.xls, 2007.

[63] Capital District Transportation Committee. *New Visions 2030: The Plan for a Quality Region Summary Document*, p. 12, August 2007.

[64] *New Visions Working Group B Report: Expressway System Options*, April 2007 p. 60

[65] Ibid, p. 58

[66] The average value of travel time of $8.18 per vehicle hour is presently used

[67] Getting a Handle on the Impacts of Technological and Society changes on Travel in 2030, John Poorman 2000

[68] The Brookings Institution, *Policy Brief #128*, January 2004.

[69] Texas Transportation Institute *Urban Mobility Study*, 2007 (data for 2005).

[70] *New Visions*, page 35

[71] Priority treatment networks were identified by the Bicycle and Pedestrian Issues Task Force, the Arterial Corridor Management task Force, and the Goods Movement Task Force.

[72] http://www.dot.state.ny.us/design/css/css.html.

[73] "Excellent dropped slightly from 10.5% to 9.7%, and Fair continued a general increasing trend by rising 0.6% to 33.2%. Poor pavement has been creeping upward from a low of 4.7% in 2004 to 5.4% in 2007, an increase of 0.4% over last year. Pavements rated 7 fell for the fourth year in a row, to 42.4%. When this trend is coupled with the trend of increasing Fair pavement, it tends to indicate preventive maintenance candidates are not being treated in time and are deteriorating to levels that will require more expensive repairs." *Pavement Condition of New York's Highways: 2007*, page iii

[74] http://www.cdtcmpo.org/policy/june07/fp-doc.pdf

[75] New Visions 2030 and the Safety of Major Bridges in the Capital District, CDTC, August 2007

[76] http://www.cdta.org/pdfs/CDTA%20Budget/CDTA%20Fiscal%20Year%202009%20Budget.pdf

[77] The Port Commission was created in 1932 as a public authority under Chapter 192, Laws of 1925 (not codified).

[78] Maritime Transportation Security Act of 2002

[79] As of January 2002, the FRA designated ten high-speed corridors under section 1010 of the Intermodal Surface Transportation Act of 1991 (ISTEA) and Section 1103(c) of the Transportation Efficiency Act for the 21st Century (TEA-21). Designation allows a corridor to receive specially targeted funding for highway-rail grade crossing safety improvements, and recognizes the corridor as a potential center of HSR activity.

[80] REVEST The Capital Region of New York's, 2nd Edition, March 2000

[81] An area is allowed three exceedances of the1-hour ozone standard over a three-year period.

[82] July 28, 1994 Federal Register

[83] 8-hr standard (0.08 ppm): find the 4th highest 8-hour value in a year; the average for a consecutive three years will determine if you exceed the standard.

[84] Following the 2000 Census, the Office of Management and Budget revised the Albany-Schenectady-Troy MSA definition to be Albany, Montgomery, Rensselaer, Saratoga, Schenectady and Schoharie Counties.

[85] These counties, which are outside the metropolitan planning boundary and inside the nonattainment/maintenance area boundary, are referred to as "donut" areas.

[86] Until an area has an EPA-approved Air Quality Statewide Implementation Plan (SIP) for said area, the conformity test is called the Interim Test. For "basic" ozone areas, the test may be either of two: (1) build < or = no-build, or (2) build < or = 2002.

[87] 23 CFR 450.314 (b) If the MPA does not include the entire nonattainment or maintenance area, there shall be a written agreement among the State department of transportation, State air quality agency, affected local agencies, and the MPO describing the process for cooperative planning and analysis of all projects outside the MPA within the nonattainment or maintenance area. The agreement must also indicate how the total transportation-related emissions for the nonattainment or maintenance area, including areas outside the MPA, will be treated for the purposes of determining conformity in accordance with the EPA's transportation conformity rule (40 CFR part 93). The agreement shall address policy mechanisms for resolving conflicts concerning transportation-related emissions that may arise between the MPA and the portion of the nonattainment or maintenance area outside the MPA.

[88] 23 CFR 450.314(d) If more than one MPO has been designated to serve an urbanized area, there shall be a written agreement among the MPOs, the State(s), and the public transportation operator(s) describing how the metropolitan transportation planning processes will be coordinated to assure the development of consistent metropolitan transportation plans and TIPs across the MPA boundaries, particularly in cases in which a proposed transportation investment extends across the boundaries of more than one MPA. If any part of the urbanized area is a nonattainment or maintenance area, the agreement also shall include State and local air quality agencies.

[89] John Poorman, *A New Model of Regional Planning in the Context of Home Rule*, February 2006.

[90] *Traffic growth Rate from 2006 and 2007 based on State ATR data*, email message from Harshad.Desai@dot.gov [mailto:Harshad.Desai@dot.gov], May 13, 2008

[91] http://www.fhwa.dot.gov/Planning/csstp/cssfsalb.htm

[92] General Tommy Franks, American Soldier, HarperCollins Publishers, August 2004

[93] In 1991, the Inter-modal Surface Transportation Efficiency Act (ISTEA) stated safety and security should be addressed as appropriate by MPOs. The Transportation Equity Act for the 21st Century (TEA-21) developed seven planning factors to be considered in the transportation planning process. One of these seven factors was to "increase the safety and security of the transportation system for motorized and non-motorized users".

[94] 23 CFR 450.306(b)

[95] http://planning.dot.gov/Documents/Securitypaper.htm

[96] http://www.cdtcmpo.org/rtp2030/principles.pdf

[97] NCHRP Report 525: Surface Transportation Security Volume 3 - Incorporating Security into the Transportation Planning Process, Transportation Research Board, 2005.

[98] http://www.semo.state.ny.us/info/relatedLinks.cfm

[99] Title 23, U.S.C., Section 125

[100] 23 CFR 216(g)(5) and 324(c)(5)

[101] Executive Order 12898: *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, signed by President Clinton on February 1, 1994.

[102] EJ is concerned with issues as they impact both the individuals in the Title VI identified categories, plus the low-income sector, which was not covered by Title VI.

[103] October 7, 1999.

[104] *Capital District Transportation Committee, Environmental Justice Analysis*, March 2007 http://www.cdtcmpo.org/policy/june07/ej-doc.pdf

[105] Geographic Information System

[106] http://www.gamaliel.org/ARISE/brochure.htm

[107] CDTC sponsored ARISE's March 13, 2003 Regional Forum

[108] *Capital District Transportation Committee - Environmental Justice Analysis,* page 17, CDTC, March 2004

[109] 23 CFR 450.306(g)

[110] "*Environmental mitigation activities* means strategies, policies, programs, actions, and activities that, over time, will serve to avoid, minimize, or compensate for (by replacing or providing substitute resources) the impacts to or disruption of elements of the *human and natural environment* associated with the implementation of a long-range statewide transportation plan or metropolitan transportation plan. The human and natural environment includes, for example, neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts." (emphasis added) 23 CFR 450.104 Definitions

[111] NYSDOT has released three basic guides: • *Air Quality Analysis of Transportation Improvement Programs, Regional Transportation Plans, and Capital Project programs – Technical Guidance to Assist Metropolitan Planning Organizations and Department of Transportation Regional Offices Meet the Objectives of the 2002 New York State Energy Plan* (January 21, 2003); • *Development of Revised NYSDOT Energy Analysis Guidelines (Draft), Subtask 12a: Energy Analysis Guidelines for TIPs and Plans* (June 21, 2002); and • *Development of Revised NYSDOT Energy Analysis Guidelines (Draft), Subtask 12b:*

[112] *Subtask 12a: Energy Analysis Guidelines for TIPs and Plans.*

[113] Clean Cities Game Plan 1998/99, U. S. Department of Energy.

[114] Oregon Institute of Science & Medicine at The National Press Club, May 19, 2008.

[115] International Panel on Climate Change, "The Scientific Basis", *Climate Change 2001: IPCC Third Assessment Report*, 774

[116] http://www.cdtcmpo.org/rtp2030/say-un.htm

[117] Dr. John R. Christy, University of Alabama in Huntsville

2008 Transportation Certification Review
Capital District Transportation Committee

Tuesday, April 15, 2008

Start Time	Review Topic
1:00-1:45	Purpose and Introductions • Introductions • General Overview of Certification Reviews • Status of recommendations from 2004 Review
1:45- 3:00	Regional Issues • Major Issues facing the Area • Demographic trends (population, employment, journey to work, economic growth?) versus VMT growth • Innovative regional efforts
3:00 – 3:15	Break
3:15 – 4:15	Transit and Demand Management • Transit Service • Transit Vision • Possible Fare Restructuring • Park and Ride Lots • BRT Rt. 5

Wednesday, April 16, 2008

Start Time	Review Topic
8:30 – 10:15	**Regional Planning** • *New Visions* update – How is new Plan guiding CDTC planning activities? – Long Range Financing efforts – VMT forecasting and assumptions • Freight and Corridor Planning Efforts
10:15 – 10:30	Break
10:30 – 11:30	Public Involvement • Process • Title VI/EJ considerations • Welfare to Work efforts

2008 Transportation Certification Review
Capital District Transportation Committee

April 16th continued	
11:30 – 12:00	Central Staff Topics • Capabilities • Travel forecasting model • Involvement in project development • Census/National Household Travel Survey/Local surveys
12:00 – 1:00	Lunch
1:00 – 2:00	Transportation Security & MPO Planning • CDTC's view of the concept • Activities • We would like to….
2:00 – 3:00	Transportation Improvement Program • Readability of the TIP • Fiscal Constraint • Local project cap • Amendments and rollovers • TIP Development (prioritization)
3:00 – 3:15	Break
3:15 – 3:45	Planning Management • How did CDTC respond to SAFETEA_LU requirements • Status of AQ MOU with A/GFTC • UPWP Management
3:45 – 4:15	Open Forum and Wrap-up

CDTC's 31 Adopted Planning and Investment Principles

PRESERVE AND MANAGE

IMPROVE SYSTEM PERFORMANCE

1. CDTC is committed to the maintenance, repair and renewal of the existing highway and bridge system in a cost-effective manner that protects and enhances rideability, public safety and accessibility.

2. Funding for appropriate repair and renewal will be based on the function and condition of the facility – not ownership.

3. Encouraging bicycle and pedestrian travel is a socially, economically and environmentally responsible approach to improving the performance of our transportation system.

4. In addition to supporting desired land settlement patterns, transit service helps meet multiple regional objectives in the Capital Region.

- Transit contributes to congestion management, air quality and energy savings
- Transit offers an alternative travel mode, reducing auto dependence
- Transit provides essential mobility for those who do not operate a private vehicle

5. Improve the safety of the regional transportation system by creating a travel environment that is consistent with the community context and that provides a reasonable range of risk for all users of the system.

6. Transportation planning and implementation in the Capital Region includes examination of security issues and incorporation of security actions that: protect lives and coordinate the use of resources and manpower through established plans and protocols; provide services during and after disaster emergencies to aid citizens and reduce human suffering resulting from a disaster; and provide for recovery and redevelopment after disaster emergencies.

7. The needs of the older driver will be considered as transportation facilities are maintained and rehabilitated.

8. Increased efficiency in current vehicles/programs is preferable to fleet expansion to provide for special transportation needs.

MANAGE CONGESTION

9. Management of demand is preferable to accommodation of single-occupant vehicle demand growth.

10. Cost-effective operational actions are preferable to physical highway capacity expansion.

11. Capital projects designed to provide significant physical highway capacity expansion are appropriate congestion management actions only under certain conditions.

12. Significant physical highway capacity additions carried out in the context of major infrastructure renewal are appropriate only under certain conditions.

13. Incident management is essential to effective congestion management.

14. Any major highway expansion considered by CDTC will include a management approach.

15. In project development and design, other performance measures, such as pedestrian, bicycle and transit access, community quality of life and safety will be considered along with congestion measures.

16. The New York State Department of Transportation guidelines for roundabouts will be used for all CDTC federal aid projects that involve intersection improvements.

PROTECT OUR INVESTMENT

17. Managing traffic flows on the Capital Region expressway and arterial system is critical for both economic and social reasons.

18. Major capital projects must have a plan for operating budgets for the life of the project.

19. Maintaining the health and improving the efficiency of the existing freight facilities in the region through public/private partnerships is a high priority.

DEVELOP THE REGION'S POTENTIAL

BUILD UPON OUR STRENGTHS

20. The transportation system of the Capital Region is an important part of the region's attractiveness.

21. Transportation investments will help preserve and enhance the Capital Region's existing urban form, infrastructure and quality of place.

USE TRANSPORTATION INVESTMENT AS A TOOL

22. Transit facilities and services can be an essential element of the social, economic and cultural fabric if supportive policies and investments are in place.

23. Neighborhood-based local planning efforts are important to the success of an overall regional plan that emphasizes livable communities.

LINK TRANSPORTATION AND LAND USE

24. Land use management is critical to the protection of transportation system investment.

25. Design of street layout and location of complementary uses creates a pedestrian scale and provides increased accessibility without compromising the attractiveness of development.

LINK TRANSPORTATION INVESTMENTS TO LAND USE PLANNING

26. Transportation investments will encourage residential and commercial development to locate within an Urban Service Area defined for the Capital Region.

27. Environmental stewardship is one of CDTC's emerging roles and is crucial to the success of and quality of life in this region. Transportation investments must improve or preserve the region's cultural and natural environment.

28. Transportation investments will not encourage development in environmentally sensitive areas and will help to preserve rural character.

29. Arterial management guidelines will be flexible enough to deal with the Capital Region's various roadway types and the specific land use patterns surrounding them.

PLAN AND BUILD FOR ALL MODES

30. CDTC's planning efforts will be comprehensive enough to encompass all modes, including air, water, freight, intercity and local transit, pedestrian and bicycle.

31. Possible bicycle/pedestrian-related improvements will be considered from the perspective of developing a system – not just based on whether a particular facility is currently used.