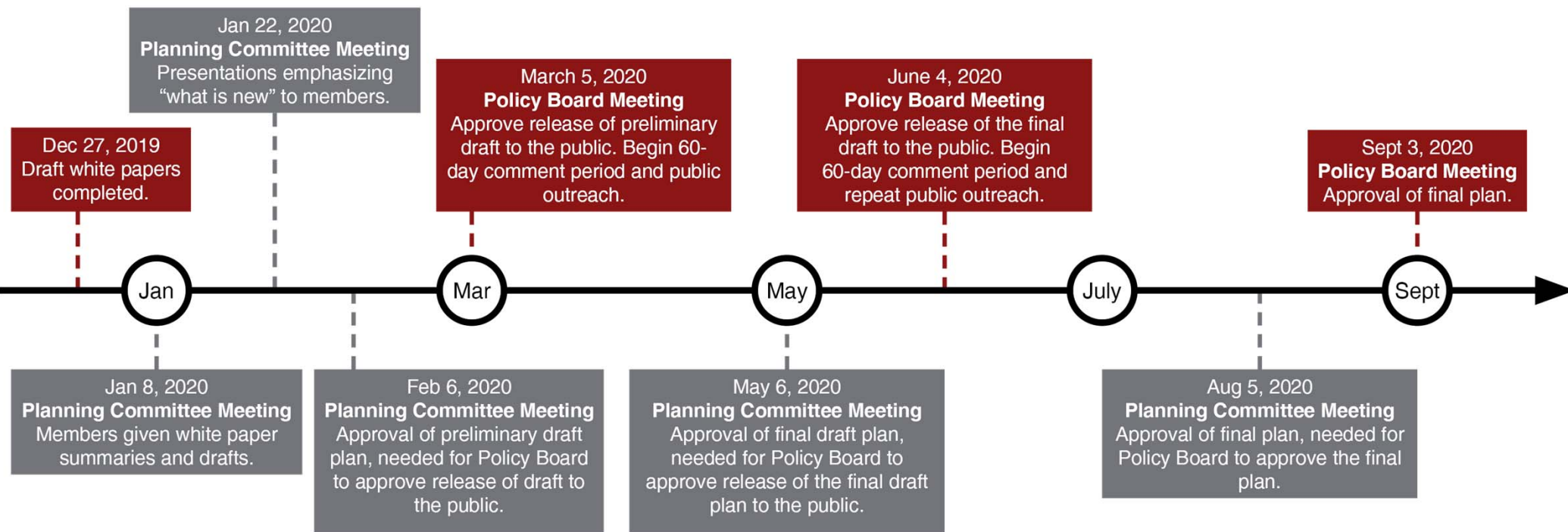




New Visions 2050

Regional Transportation Plan Update



Public Participation

How to get involved in the 2050 Plan



Online at www.cdtcmpo.org/NV2050

Learn more about how long range planning works, take surveys, & sign up for our newsletter & email list to get updates on planning initiatives in the Capital Region & comment opportunities.



In person

Invite us to attend your event or present to your group by contacting our community outreach staff.



Become a citizen planner

Participate in CDTC's Citizen Planner training, plan & hold your own New Visions 2050 meeting with your friends, family, or other community in the Capital Region. A "meeting-in-a-box" will be provided to citizen planners with all the tools & information needed to present & collect comments on the New Visions 2050 Plan.



On social media

Follow us on Facebook, Twitter & Instagram to learn about transportation news & when we'll be out in the community.



Request Printed Material

If you don't have digital access & prefer information in paper form, you can make that request by calling the number below.



Questions?

Contact our community outreach staff at NewVisions@CDTCMPO.org or (518) 458-2161.

Category	Regional Rate
Albany County Residents	36.3%
Rensselaer County Residents	19%
Saratoga County Residents	26.2%
Schenectady County Residents	18.5%
Disability	11.7%
Low-income	11%
Zero Vehicle Households	9.7%
Minority	19.3%
Limited English	3%

- Partner with organizations we have cultivated relationships with through our Task Forces, Advisory Committees, and Subcommittees to conduct presentations that inform and gather public input.
- Speak with people where they already are by hosting booths at community festivals or public locations, as opportunities arise.
- Encourage public participation by using an activity to gather input and increase public awareness of transportation planning.
- Provide essential materials in visually-accessible formats and foreign languages, as needed.
- Work with local government and transportation partners to identify outreach opportunities, particularly to reach underserved groups.
- Develop a youth outreach program to get input from those who will be affected most by the 2050 Plan.
- Reach out to bus riders through a series of *Transit Talks* pop-up meetings in coordination with CDTA.
- Distribute “meeting-in-a-box” materials by request.
- Encourage event participants to see the results of their input and stay in touch throughout New Visions 2050 development by signing up for the CDTC *InMotion* newsletter.

Outreach Strategies

Please let us know if there is an event or meeting between March-May that you would like to invite CDTC to table or present at.

Any other suggestions for public outreach?



Quality Region

New Visions 2040

- For New Visions 2040 we established a Quality Region Task Force with most members from Policy Board
- Replace Quality Region Task Force with Policy Board & obtain input from emails and meeting presentations. *

* Blue text indicates text, recommendations, ideas, etc. which are new in the draft New Visions 2050 Plan.

New Visions 2050 Subjects

- Executive Summary
- Planning and Investment Principles
- Quality Region: Economic Development and Quality of Life, Land Use
- Financial Plan
- Equity
- Environment and Technology
- Bicycle and Pedestrian Plan; and Trails Plan
- Complete Streets
- Transit Development Plan
- Coordinated Public Transit Human Services Transportation Plan
- Travel Demand Management
- Regional Operations, Travel Reliability & Congestion Management
- Highway and Bridges Condition Inventories & Asset Management
- Safety & Security
- Freight Plan
- Performance Measures
- Recommendations

WILL THESE TRENDS CONTINUE?



Prepared By:
The Capital District
Regional Planning Commission
2014



What is a Quality Region

Transportation by its nature is multi-modal because no one mode can meet all the demands on the system.

All transportation modes (and programs) are inter-connected and inter-related.

Improving one mode or program can sometimes improve or worsen other modes.



Connections



What is a Quality Region

Just as the transportation system is multi-modal, so is transportation planning.

Transportation planning which focuses on all modes, and improving these modal connections and interactions (a.k.a. intermodal connections) results in a Quality Region.

Four Basic Scenarios

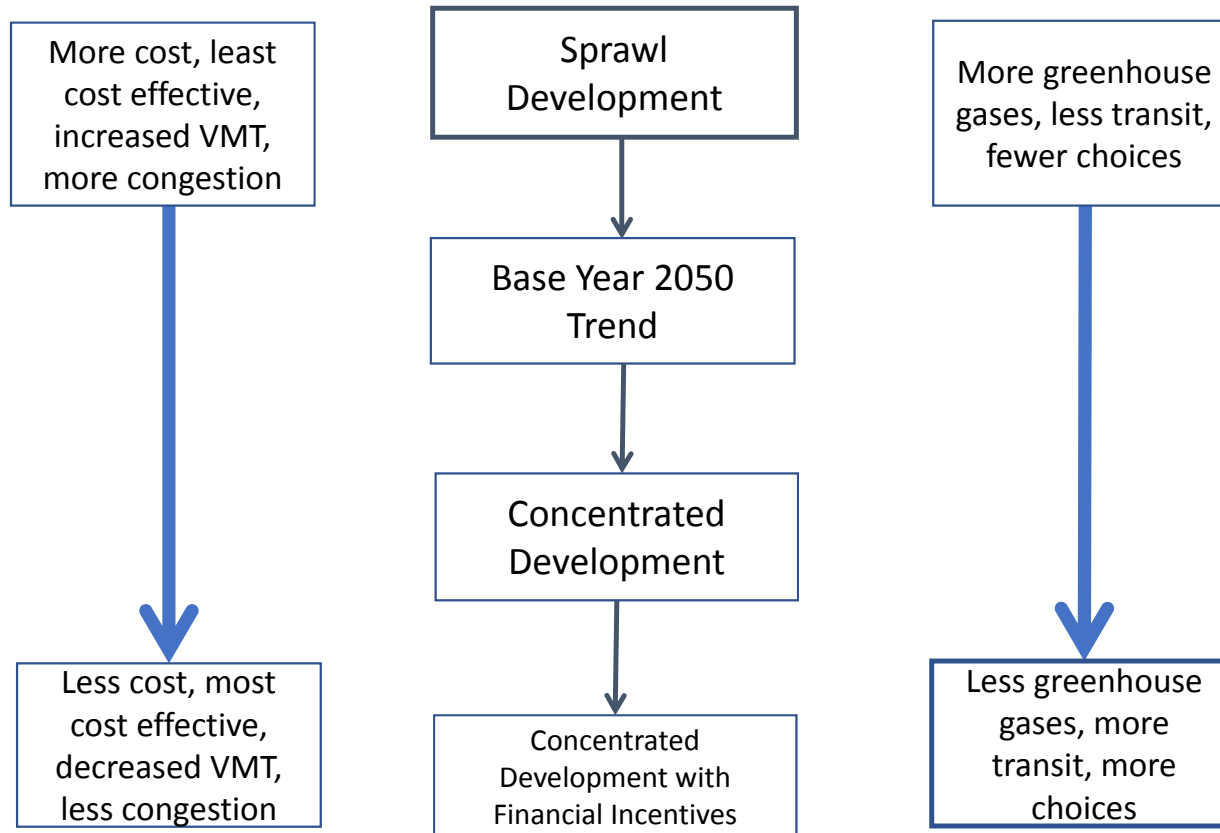
- **Base-Year 2050 Trend.** This scenario uses the population, employment, and land-use forecasts that are incorporated in CDTC's travel demand model, which was used in the LRTP update. In this scenario, the gradual adoption of automated vehicles (AV's) would not change trend land use and development patterns. Mobility as a Service would increase without dramatically changing travel behavior.
- **Sprawl Development.** This scenario assumes that adoption of AV technologies will encourage development further from urbanized areas. Some commentators suggest this will be the case, as people traveling in AVs will view commuting travel time as potentially productive. Private ownership of vehicles would remain similar to current ownership rates, and Mobility as a Service would be limited and concentrated in cities. The result would be increased sprawl development patterns beyond trend. This land-use pattern would run counter to the New Visions Plan goals. Provision of transit service would become more challenging.
- **Concentrated Development.** This scenario assumes that urban living will be made more attractive through new transportation options like Mobility-as-a-Service (MaaS) and AV technologies. In addition, this scenario assumed a high level of urban reinvestment, transit investments and suburban planning that encourage construction of transit-oriented development in the region's urbanized areas. New paradigms would increase the importance and success of transit. Success of Mobility as a Service and AV technologies could lead to reduced private ownership of vehicles. This land-use pattern furthers the New Visions Plan development goals.
- **Concentrated Development with Financial Incentives.** This scenario uses the land-use assumptions from the Concentrated Development Scenario to explore the impacts of increasing household transportation costs. This could result from instituting several incentive options, including a carbon tax, a VMT tax or fee structures to encourage ridesharing in MaaS, as well as local fees from curb pricing and/or congestion pricing. Many commentators predict that without the support of fee structures to encourage ridesharing with MaaS, congestion could increase because of increased vehicle miles of travel.

Two Overlay Scenarios which could happen in combination with other scenarios

- **Optimistic AV.** This scenario assumes that automated vehicles will be well integrated into the land use and transportation system with pricing and policy structures that encourage ridesharing and transit use. Under this scenario, empty self-driving cars on the road will be minimal and vehicle miles of travel will be less than trend. Increased efficiency of self-driving allows greater real capacity on expressways, and traffic incidents will be rare. The potential safety benefits of AV's will be fully realized.
- **Pessimistic AV.** This scenario assumes that the availability of AV's result in significant increases in vehicle miles of travel due to empty cars circulating or returning to the car owner's home. Increased congestion results from inadequate facilities for AV's dropping off passengers. Transit service declines dramatically.

Sprawl Development	Concentrated Development	Concentrated Development with Pricing
◆ Lower quality land use planning ◆ Increasing driving & congestion. With C/AVs, more miles driven with no passengers in the car. ◆ ◆ Transit service declines, transit viability is threatened ◆ Lower access to walking & cycling per person ◆ Missed opportunity for regional attractiveness ◆ Deterioration of urban & suburban character ◆ Additional loss of open spaces, environmentally sensitive lands & agricultural lands ◆ Future VMT increased by 8% ◆ Less transportation choices ◆ Less energy efficient housing choices	◆ Concentrated, walkable development patterns resulting from urban investment & suburban planning ◆ Decreases in congestion, AV's add capacity to expressways & arterials, multimodal travel ◆ Transit service serves more people, strong market share ◆ Better walking opportunities; more walkable region ◆ Protection of regional quality of life ◆ Protection of open spaces, environmentally sensitive lands & agricultural lands ◆ Future VMT increased by 3% ◆ More transportation choices ◆ More energy efficient housing choices	◆ Concentrated, walkable development patterns resulting from urban investment & suburban planning ◆ Decreased congestion, increased carpooling most efficient use of AVs, minimize potential negative impacts of AVs ◆ Transit service highly attractive & competitive, reaches higher market share ◆ Better walking opportunities; more walkable region ◆ Protection of regional quality of life ◆ Protection of urban, suburban & rural community character ◆ Protection of open spaces, environmentally sensitive lands & agricultural lands ◆ VMT reduced by 3% ◆ Provides more transportation choices ◆ More energy efficient housing choices

Scenario Impacts



Which scenario or pathway would you prefer to see New Visions principles pursue?

- A. Status Quo
- B. Sprawl Development
- C. Concentrated Development
- D. Concentrated Development w/pricing or incentives

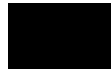
Quality Region Recommendations:

1. Continue to Seek Adequate Funding to Fully Implement the Plan.
2. Program Multi-modal, Equitable and Balanced Funding.
3. Explore the Use of Innovative Sources.
4. Encourage Cooperation and Coordination with Local Planning.
5. Continue to promote our Community and Transportation Linkage Planning Program and to seek adequate funding to implement studies.
6. Encourage drivers to drive less by developing a stronger Travel Demand Management (TDM) Program.
7. Improve CDTC public outreach and marketing efforts.
8. Update and upgrade project selection.
9. Develop a Training Program that specifically targets local planners, local planning board members and other local decision makers.

Completed



Existing



New



Recommendations continued....

10.Refine and further articulate the Big Idea/Big Ticket Initiatives for the Capital District.

11.Promote and support the New York State climate change strategy of “cap and invest.”

12.Promote and support the change-over of petroleum fueled vehicles to electric vehicles.

13.Improve the collection of transportation data to support regional transportation planning and analysis, especially in the new technology modes such as ride-hailing and bikesharing.

14.Regarding self-driving vehicles, promote and support ridesharing and the “purchase of miles” instead of longer commuting and increases in vehicle miles traveled (VMT).

15.Work with local Departments of Health to promote the connections between transportation and health.

16.Promote and support the pedestrian safety strategy in all our communities.

New Visions 2050 Big Ticket Initiatives

	Hypothetical "Big Initiative"	Approx. Max. 20-Year Scale	20-Year Cost Estimate (\$ mill)	Comments
	Regional Greenway Program	10 miles/year; 280 miles total including existing	\$150 M	Scale reference is Seattle's plan for 800 miles of paths. Cost at approx. \$500 K/mile based on local costs.
	Riverfront Access and Urban Development Program	I-787 Study Implementation		Could draw from multiple fund sources, beyond transportation.
	Street Reconstruction and Reconfiguration	40 lane miles/year; 800 miles total	\$2,400 M	New Visions intended to address 25 lane miles per year; this is 50% more aggressive. Cost at approx. \$3 M per lane mile.
	Suburban Town Center Development	5-10 lane miles/year; 150 miles 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 this total.
	Enhanced BRT with TOD			
	Demand Management Program	40,000 participants	\$50 M (public)	Scale at 10% of regional workforce; estimated at \$20/month for 1/4 of participants, 3/4 of participants financed by employers. Based on CDTC exp.
	VMT, Carbon Tax, or Carbon Cap, Reduce, and Invest			
	Integrated Corridor Management Program			
	Ridesharing System for All Users			
	Regional Electric Vehicle Charging System			

List of 7 big ticket initiatives included in the 2040 New Visions Plan:

- Regional Greenway Program
- Riverfront Access and Urban Development Program
 - I-787 Study Implementation
- Street Reconstruction and Reconfiguration
- Suburban Town Center Development
- Integrated Corridor Management Program
- Demand Management Program
- VMT, Carbon Tax, or Carbon Cap, Reduce, and Invest
- Ride Sharing System for all Users
- Regional Electric Vehicle Charging System
- Enhanced BRT

Are there any big ticket initiatives that you feel are missing from this list?

Quality Region Comments:



Infrastructure

Jacob Beeman jbeeman@cdtcmpo.org

New Visions 2050 Outline



- Infrastructure Planning and Investment Principal
- Capital District Transportation System
- Multimodal Infrastructure Needs
- Financing Infrastructure Renewal
- Innovation Through New Technology
- Recommended Strategies and Future Actions
- Performance Measures
- Capital Infrastructure Projects

Planning & Investment Principal



Infrastructure – Transportation funding must be sufficient to both repair and sometimes replace our highway, bridge, and transit infrastructure.

New Visions has made a strong commitment to keeping the region's transportation system functioning and in good condition. CDTC remains committed to the maintenance, repair, and renewal of the existing passenger and freight transportation facilities in a cost-effective manner that protects and enhances rideability, public safety, accessibility, and serviceability.

Currently the needs for repairing/reconstructing bridges and pavement, and investing in transit and port facilities outweigh available resources. Renewing existing infrastructure in our communities is fiscally responsible and consistent with New York's Smart Growth policy.

CDTC needs to ensure that system preservation and system renewal are balanced, and that roads and bridges in our cities and rural communities are equitably considered. Continued capital investment in the region's transit system, port, and airport – and their connections to other surface transport – will remain a priority.

Financing Infrastructure Renewal



- NYS Transportation Asset Management Plan notes a scarce funding environment and reinforces the “preservation first” approach
- CDTC supports the preservation first approach in alignment with NYSDOT’s TAMP and notes additional needs in multimodal and bicycle and pedestrian facilities
- In 2050, projected total annual revenue for highway and bridge rehabilitation, maintenance, and reconstruction is approximately \$500 Million or 65% of total plan cost

New Strategies & Actions



- Evaluate TIP projects according to CDTC identified merit categories. Criteria identified in the appropriate infrastructure merit category prioritize projects that propose preservation and renewal of existing infrastructure.
- Encourage sidewalk repairs, transition plan implementation, and connecting gaps in the existing bicycle and pedestrian network before extending new bicycle and pedestrian infrastructure.
- Support NYSDOT efforts to expand coverage of weigh-in-motion (WIM) and e-screening technologies on the State Freight Core Network.

New Strategies & Actions



- CDTC will evaluate re-establishing both the bridge and pavement goals originally developed in 1995 relative to current needs and funding.
- CDTC will evaluate resources needed to collect and maintain better data on regional costs of bicycle and pedestrian infrastructure construction and maintenance.
- CDTC will evaluate the needs of emerging vehicle technologies like Automated and Electric Vehicles (AVs and EVs) and assess the impacts they might have on the physical transportation infrastructure as their total market share increases.

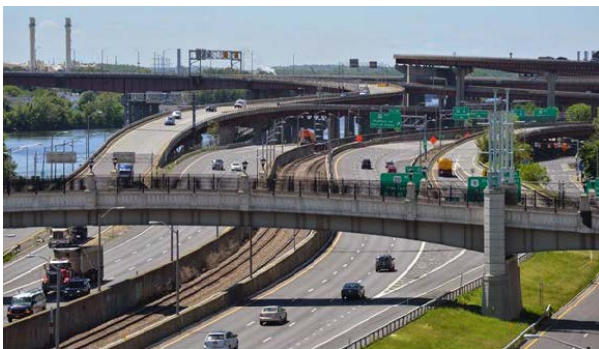
Capital Infrastructure Projects



- State Road 378 Bridge Replacement
- Interstate 787 Feasibility Studies
- Livingston Avenue Bridge Replacement



SR 378 Troy-Menands Bridge



I-787 Infrastructure, Albany



Livingston Avenue Bridge

Infrastructure comments:

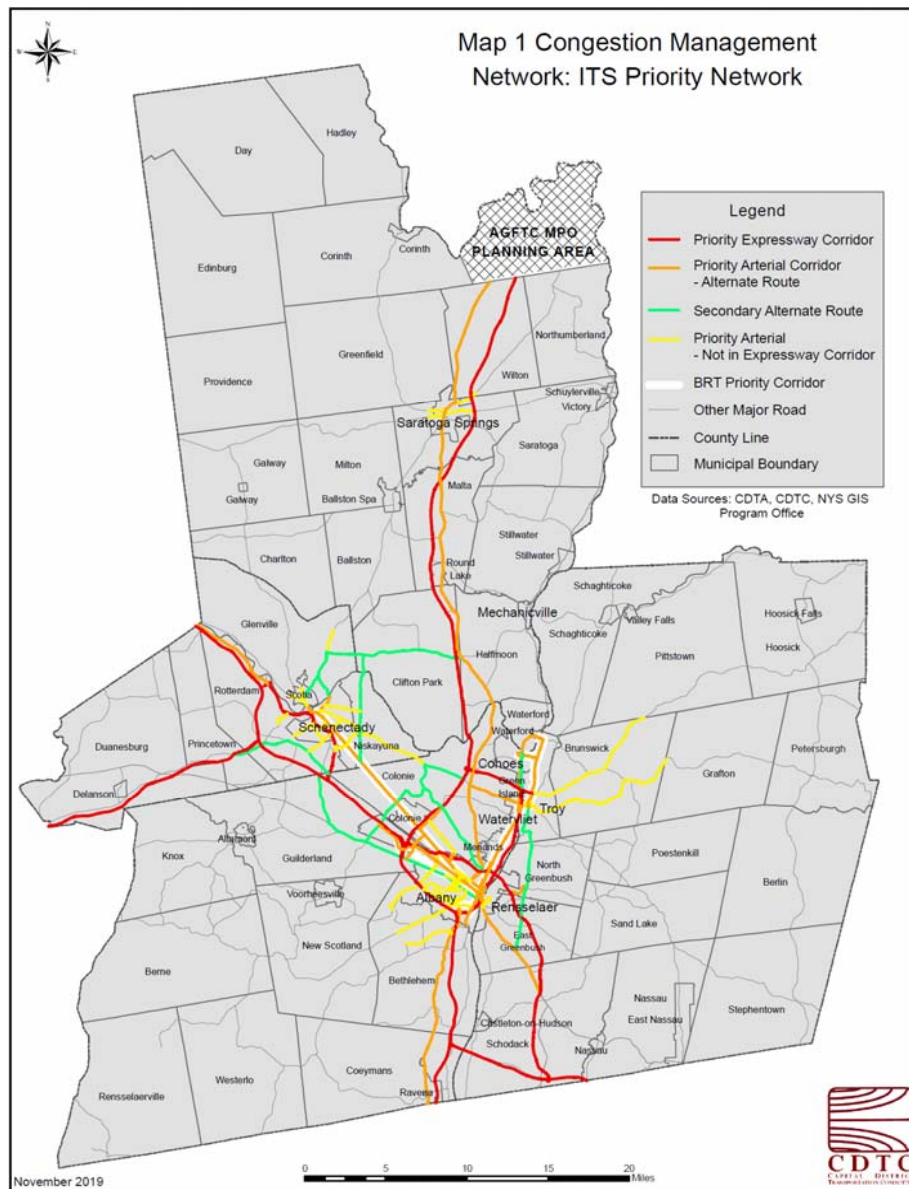


Draft Regional Operations and Travel Reliability White Paper: CDTC's Congestion Management Process

Chris O'Neill coneill@cdtcmpo.org

Andrew Tracy atracy@cdtcmpo.org

Congestion Management Network: the Intelligent Transportation System Priority Network



Planning and Investment Principles

Travel Reliability – Reliable traffic flow is more important than reducing congestion – traffic congestion is often a sign of an area's economic vitality.

- Managing traffic flows on the Capital Region expressway and arterial system is critical for both economic and social reasons.
- Congestion Management is much more cost effective than highway capacity increases or new lanes. Congestion alone does not justify increasing highway capacity or adding new lanes.
- Congestion management actions will include traffic management center improvements, incident management, managed lanes, managed tolls, traffic information technology, traffic signal coordination, parking management, and travel demand management strategies such as supporting more transit, pedestrian, and bicycle travel, carpooling, vanpooling, carsharing, bikesharing, and flexible work hours.
- Some congestion is acceptable when the community deems it acceptable, or when it results from balancing the needs of other transportation modes such as pedestrian, bicycle, and transit.

CDTC New Visions 2050 Plan Update

- Travel Reliability – An important performance measure for CDTC and required by the FAST Act
 - *We can't eliminate all congestion, but we can manage congestion.*

Performance Measures: Measures of Reliability

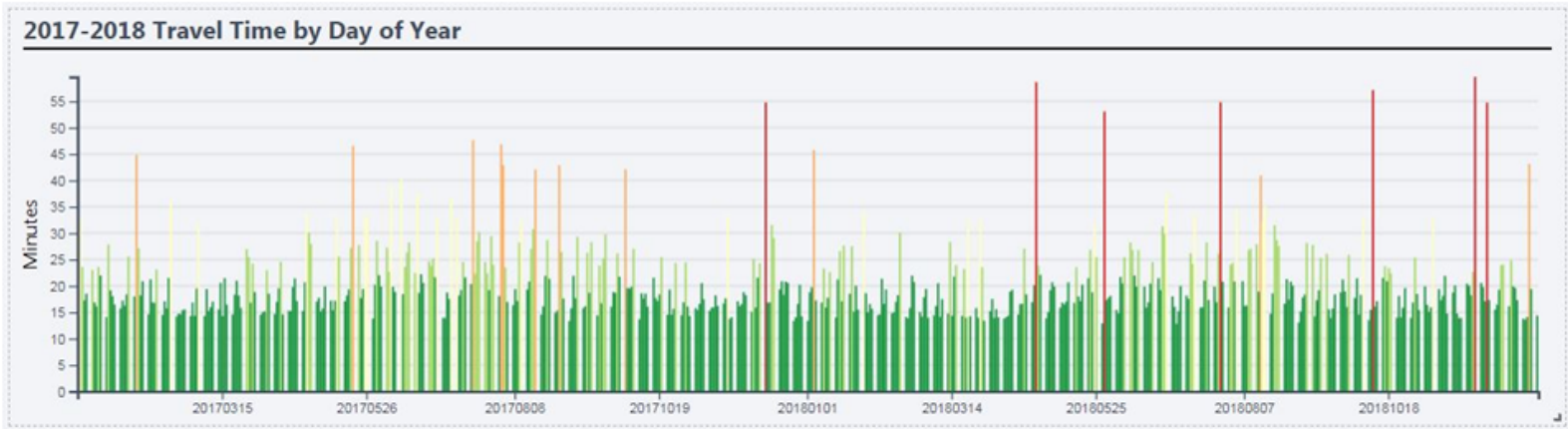
- LOTTR (Level of Travel Time Reliability) and TTTR (Truck Travel Time Reliability)
- For corridor level analysis CDTC has used the Planning Time Index (PTI) measure of reliability:
- For the PM Peak, PTI is defined as:

PM Peak 95% travel time / freeflow travel time

- Reliability is a difficult concept to explain to the average person, so NPMRDS graphs really make it clear.

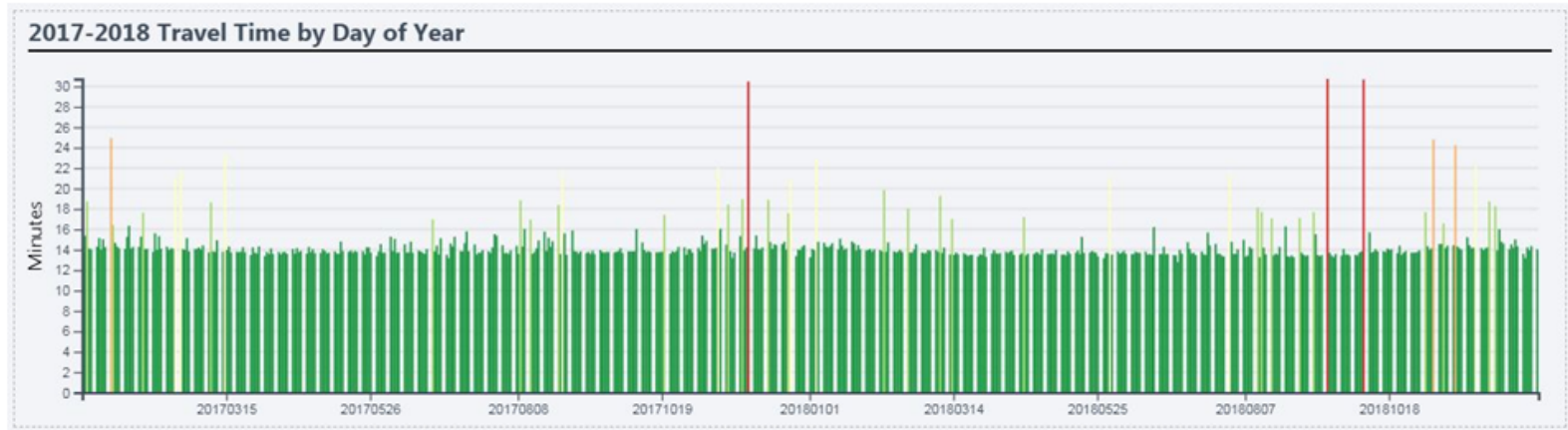
Northway, Exit 1-9, Weekday PM Peak Period, Northbound

PTI= 3.24



Northway, Exit 9-1, Weekday PM Peak Period, Southbound

PTI= 1.35



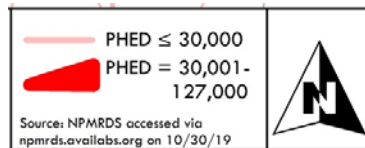
2018 Weekday Average Speed, 95th Percentile Speed, and Planning Time Index

Corridor	PM Peak Hour			AM Peak Hour		
	Average Speed (mph)	95th Percentile Speed (mph)	Planning Time Index	Average Speed (mph)	95th Percentile Speed (mph)	Planning Time Index
Northway, Exits 1-9, Northbound	39.7	20.1	3.24	60.4	54.8	1.20
Northway, Exits 9-1, Southbound	58.1	48.6	1.35	48.1	30.1	2.23
Northway, Exit 9 to Hudson River, Northbound	65.7	58.3	1.21	65.7	59.8	1.18
Northway, Hudson River to Exit 9, Southbound	65.9	60.9	1.15	63.9	59.3	1.34
I-90, I-787 to Northway, Westbound	44.4	22.3	2.80	56.2	48.3	1.30
I-90, Northway to I-787, Eastbound	51.1	31.4	2.03	54.7	45.1	1.41
I-90, Patroon Island Bridge to Exit 12, Eastbound	60.5	51.4	1.29	60.9	53.9	1.23
I-90, Exit 12 to Patroon Island Bridge, Westbound	61.3	52.6	1.28	58.1	44.7	1.50
I-787, Route 7 to Exit 23, Southbound	54.4	42.0	1.51	49.3	32.8	1.94
I-787, Exit 23 to Route 7, Northbound	45.6	26.0	2.43	55.9	49.2	1.27
Route 7, I-787 to Northway, Westbound	26.8	12.8	4.83	54.8	45.9	1.37
Route 7, Northway to I-787, Eastbound	55.3	44.4	1.45	44.6	23.9	2.70
I-890, Thruway Exit 25 to Exit 4, Westbound	53.5	39.8	1.55	52.9	41.7	1.48
I-890, Exit 4 to Thruway Exit 25, Eastbound	52.2	39.3	1.57	53.4	42.6	1.45
I-890, Exit 4 to Thruway Exit 26, Westbound	53.6	41.0	1.49	53.3	42.8	1.43
I-890, Thruway Exit 26 to Exit 4, Eastbound	53.9	41.0	1.49	53.6	43.4	1.41
Thruway, Exit 21A to Exit 23	64.5	61.4	1.11	63.3	60.6	1.12
Thruway, Exit 23 to Exit 21A	63.6	58.7	1.14	64.5	60.6	1.11
Thruway, Exit 23 to Exit 24	62.7	59.0	1.15	65.1	62.0	1.10
Thruway, Exit 24 to Exit 23	64.2	61.1	1.10	63.9	60.0	1.12
Thruway, Exit 24 to Exit 25	48.6	29.7	2.18	61.7	56.5	1.15
Thruway, Exit 25 to Exit 24	62.5	57.7	1.15	50.4	32.1	2.06
Thruway, Exit 25 to Exit 26	62.2	53.9	1.25	62.9	55.2	1.22
Thruway, Exit 26 to Exit 25	63.9	58.2	1.16	62.5	58.4	1.16
Thruway, Exit 21A to Massachusetts State Line	60.4	54.7	1.17	59.9	53.9	1.19
Thruway, Massachusetts State Line Exit 21A	60.5	55.2	1.19	61.7	55.2	1.19
I-88, Thruway to Route 20	55.6	43.6	1.41	55.6	44.2	1.41
I-88, Route 20 to Thruway	58.1	47.6	1.35	59.0	48.7	1.32

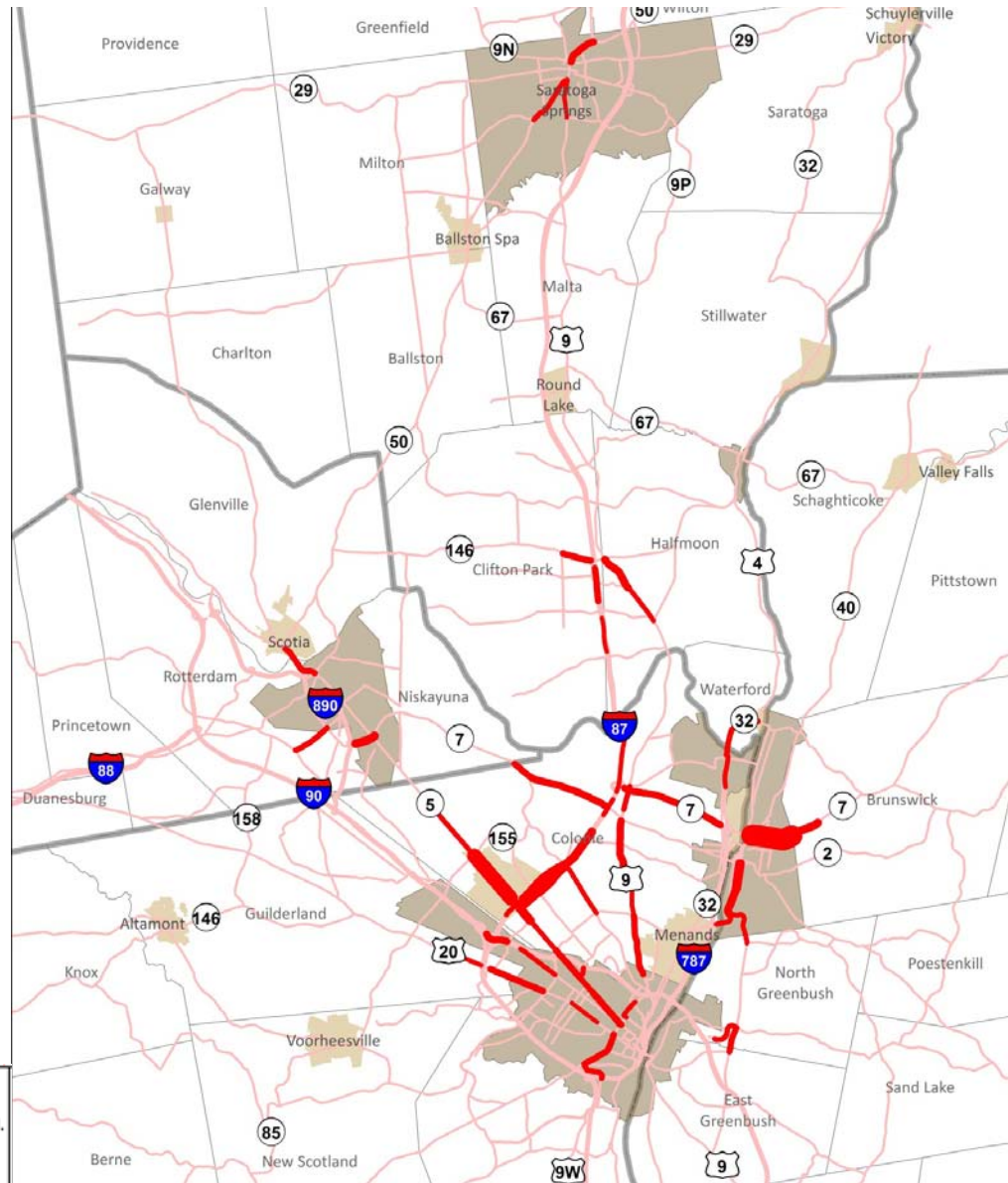
Performance Measures: Peak Hour Excessive Delay

- This measure is calculated using the NPMRDS data.
- Excessive delay means the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. The speed threshold used by CDTC is 20 miles per hour or 60 percent of the posted speed limit, whichever is greater.
- So for example, if the speed limit on an expressway is 65 mph, the threshold for calculating excess delay would be 39 mph.

Peak Hour Excessive Delay (PHED) - 2018




Peak Hour Excessive Delay (PHED):
 The extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. The speed threshold is 20 MPH or 60 % of the posted speed limit, whichever is greater. PHED is calculated in person hours.



Congestion Management Strategies

- 1. The Capital Region Transportation Management Center-** incident management
- 2. Travel Demand Management:** transit, pedestrian, bicycle modes; carpooling, vanpooling, carshare, bikeshare
- 3. Traffic Signal Technology and Intersection Improvements**
- 4. Arterial Management and Land Use Planning**
- 5. The I-87/US 9 Integrated Corridor Management Plan**



Implementation of the Congestion Management Process: Recommendations

- **Funding for Operations** – CDTC should continue to support funding for operations, including the TMC, traffic signals, ITS innovations, improved project selection process for ITS/signals. At a minimum, funding should continue at existing levels. While existing funding at the federal and state level is often set up for capital projects, funding for operations provides essential improvements to traffic flow and traffic reliability, as well as improvements to transit systems.
- **Major Highway Expansion Should Not Be Considered** – CDTC should continue its strong policy that congestion management is much more cost effective than highway capacity increases or new lanes; and that congestion alone does not justify increasing highway capacity or adding new lanes. Because of other less expensive strategies, and because of changing transportation technologies, major highway expansion (adding through lanes for several miles or more) should not be considered. CDTC policy does not support increasing road capacity by constructing new lanes. Strategic removal of bottlenecks can be considered without major highway expansions.
- **Right-size our existing roadways** – Because some of the roads in our region were built years ago based on higher-than-actual forecasted traffic, some of these roads have unused capacity. These roads should be right-sized so that underutilized right-of-way can be used to improve access for other modes of transportation, such as pedestrian, bicycling, and transit.

Implementation of the Congestion Management Process: Recommendations

- **Community Traffic Engineering Services Program** – CDTC should explore the option of establishing a community traffic engineering services program. Under this potential program, CDTC would partner with a municipality to hire a traffic engineering consultant to provide intersection signal analysis, traffic counts, or analysis of potential operational improvements or ITS improvements. Municipalities would need to apply for funding for this program.
- **Regional Traffic Signal Timing Program** – CDTC should establish a Regional Traffic Signal Timing Program to conduct a data-driven, performance measure-based screening of regional arterials to determine which would benefit most from timing optimization. The program can also ensure that safe pedestrian crossing intervals are present at all signalized intersections. The program should also proactively monitor signal performance and make timing changes in response to land use changes or shifting travel demand.
- **Active Traffic Management Strategies** – CDTC should further evaluate active traffic management (ATM) strategies, including speed harmonization and Dynamic Lane Assignment (DLA) for the Northway as national experience increases. Further national experience will help NYSDOT and CDTC determine if ATM strategies are a good fit for the Capital District.

Recommendation: Traffic Incident Management Committee

As discussed at prior ROSAC meetings:

- A Traffic Incident Management Committee should be formed that will meet regularly and assess management of recent incidents and plan for upcoming events.
- Emergency service providers, State Police, NYSDOT staff and others should be included.

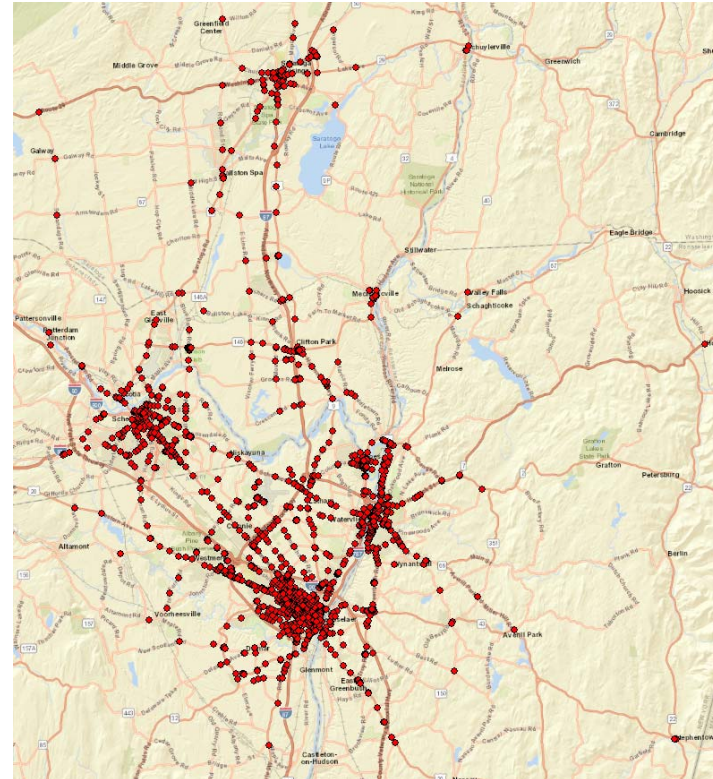


Recommendation: Inventory of signalized intersections

- Signals are a crucial component of the transportation system
- Inventory could include:
 - Type of signal
 - Operating agency
 - Type/age of controller
 - Type of timing plan
 - Presence/functionality of vehicle detection
 - Support structure
 - Safety features (head type, backplates)
 - Bike/ped facilities

CDTC recommends:

- Soliciting signal operators for data
- Compiling region-wide geodatabase
- Gap assessment
- Form plan to fill gaps (based on received data)



Implementation of the Congestion Management Process: Recommendations

- **Classification of Signalized Arterials** – CDTC should adopt a data-driven approach to prioritizing corridors for traffic signal upgrades and transit ITS deployment. Signalized arterials should be mapped and classified based on traffic volumes, transit use, access management, signal delay, travel time reliability, safety, and other factors.
- **Automated Traffic Signal Performance Measures Pilot** – Signals with vehicle detection can record and archived high-resolution operations data when the appropriate software is installed on the controller. This data can be used for modeling purposes, signal retiming, and for planning future improvements.
- **Regional Transportation Systems Management Operations (TSMO) Plan** – CDTC will develop a Regional Transportation Systems Management Operations Plan. The TSMO Plan would be developed in accordance with Federal guidance on Advancing Metropolitan Planning for Operations.

Regional Operations Comments:



Safety & Security

Sandy Misiewicz smisiewicz@cdtcmpo.org

Proposed Safety Principle

Our region will move toward eliminating transportation related deaths and serious injuries by 2050.

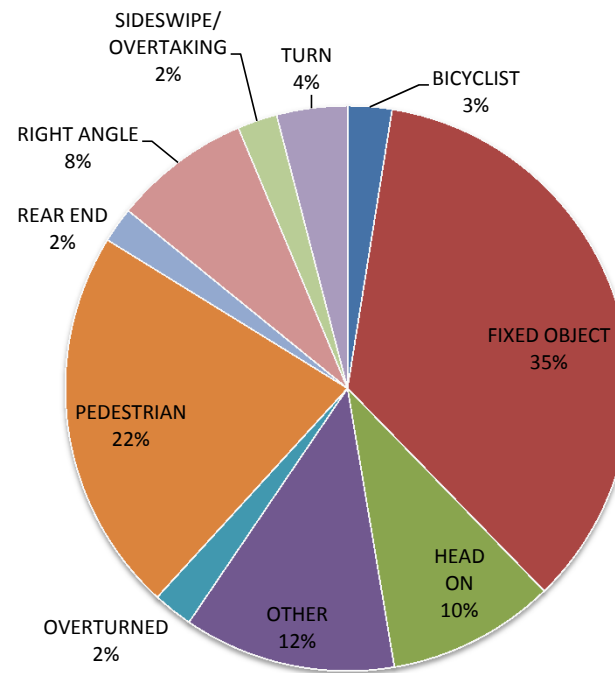
- Create a travel environment for all users that reduces risk and considers the context of communities
- Encourage best safety practices
- Evaluate safety related data
- Monitor the effectiveness of implemented countermeasures
- Encourage a long-term commitment at all levels of government
- Shift policy and transportation infrastructure design to support a cultural change in how our transportation system is used and operated

Proposed Strategies and Actions

Safety Planning:

- Plan for complete streets
- Develop a regional crash profile
- Encourage adoption of Safe Systems or Vision Zero policies
- Encourage land use planning that supports safety

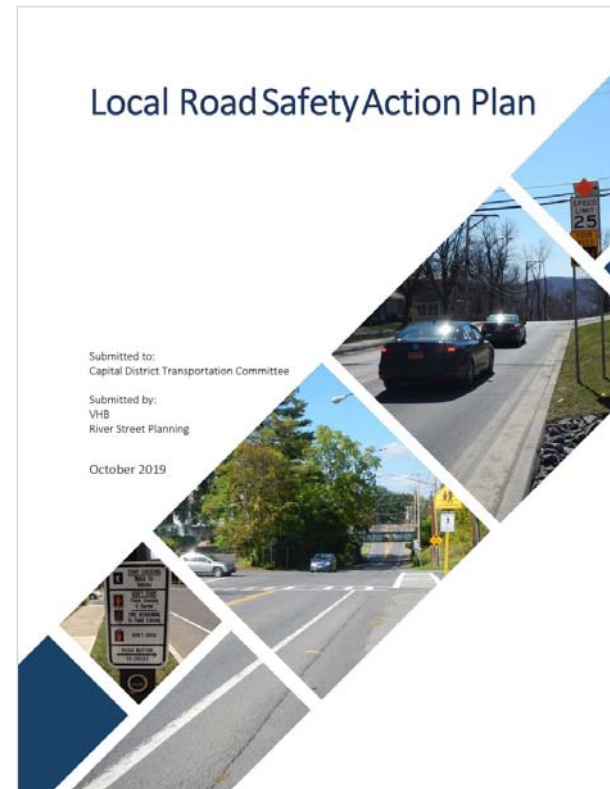
Fatal Crash Types (2011-2018)



Proposed Strategies and Actions

Safety Planning:

- Collaborate with safety partners
- Support NYS safety action plan development and implementation
- Develop a Local Safety and Operations Project Development Program
- Create an Incident Management Committee



Proposed Strategies and Actions

Funding:

- Encourage safety in all transportation projects
- Prioritize safety in all funding decisions
- Fund the Transportation Management Center and ITS technologies

Engineering:

- Design streets for safety over speed
- Encourage implementation of Systemic Countermeasures
- Support state efforts to improve crash data systems and analysis tools
- Continue to identify and address high risk locations
- Begin to plan for fully Connected/Automated Vehicles (CAVs)

Proposed Strategies and Actions

Education and Enforcement:

- Further Develop Capital Coexist
- Provide law enforcement with additional tools to impact road user behavior.
- Expand collaborations with transportation safety stakeholders.



PEDESTRIANS & BICYCLISTS



HOW TO USE AN RRFB CROSSWALK

RRFBs - "Rectangular Rapid Flashing Beacons" - are flashing lights activated by pedestrians to alert drivers to yield at crosswalks. Studies by the Federal Highway Administration (FHWA) show the flashing lights help improve safety at crosswalks.

Pedestrians

Press the button to activate the crosswalk lights. The lights will begin to flash, alerting drivers that a pedestrian is ready to cross.

Pedestrians and Bicyclists

1. Make sure traffic is yielding before you enter the crosswalk.
2. Before crossing: stop, look, and listen. Look left, right, left again, and over your shoulder for vehicles.
3. Always scan the road while crossing to make sure cars in all lanes have stopped.
4. Pay attention! Don't text while crossing!

Bicyclists

1. Obey all traffic signs and signals.
2. While bicycles are typically considered vehicles, bicyclists may cross as pedestrians at RRFBs.
3. When using the travel lane, ride in the same direction as traffic and yield to pedestrians.

FHWA: https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09009/

PEDESTRIANS & BICYCLISTS



HOW TO USE AN RRFB CROSSWALK

RRFBs - "Rectangular Rapid Flashing Beacons" - are flashing lights activated by pedestrians to alert drivers to yield at crosswalks. Studies by the Federal Highway Administration (FHWA) show the flashing lights help improve safety at crosswalks.

Pedestrians

Press the button to activate the crosswalk lights. The lights will begin to flash, alerting drivers that a pedestrian is ready to cross.

Pedestrians and Bicyclists

1. Make sure traffic is yielding before you enter the crosswalk.
2. Before crossing: stop, look, and listen. Look left, right, left again, and over your shoulder for vehicles.
3. Always scan the road while crossing to make sure cars in all lanes have stopped.
4. Pay attention! Don't text while crossing!

Bicyclists

1. Obey all traffic signs and signals.
2. While bicycles are typically considered vehicles, bicyclists may cross as pedestrians at RRFBs.
3. When using the travel lane, ride in the same direction as traffic and yield to pedestrians.

FHWA: https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09009/

Proposed Security Principle

Protection of critical transportation infrastructure from natural disasters, acts of terrorism and cyberattack is of increasing concern. Scenario planning and computer modeling will support regional security planning efforts.

- Model transportation system related scenarios
- Undertake resiliency planning
- Provide technical support to all levels of government
- Increase CDTC coordination and communication of available resources to emergency services providers

Proposed Strategies and Actions

Security Planning:

- Collaborate with security partners
- Develop a Climate Resiliency Plan & Vulnerability Assessment Tool
- Support the creation of a more secure transportation system.

Engineering:

- Retrofit infrastructure to mitigate flooding and other natural hazards

Safety & Security Comments:



COMPLETE STREETS -

Carrie Ward cward@cdtcmpo.org

Chris Bauer cbauer@cdtcmpo.org

Complete Streets White Paper

- Principle
- Progress since New Visions 2040
- New Visions 2050 Topics
- Recommendations
- Performance Measures

Principle

- Invest in Complete Streets
 - Street design will serve all users equitably, including pedestrians, bicyclists, transit riders, freight, and personal vehicle drivers and riders.

Introductory Discussion

- Benefits
- Land Use
- Equity Considerations
- Complete Streets Advisory Committee

Progress since New Visions 2040

- Develop and adopt an explicit Complete Streets Policy and encourage the region's municipalities to adopt their own policies.
 - Committee decided against regional, continue to encourage municipal policies
- Develop a Complete Streets Training and Education Program
 - Ongoing
- Develop Complete Streets Design and Implementation Guidelines
 - In Progress

Progress since New Visions 2040

- Develop a method to track progress and measure performance of complete streets policies focused on TIP project outcomes
 - Documenting completed TIP projects
- Incentivize implementation of complete streets by modifying the TIP Project Candidate Merit Evaluation Process
 - Completed

New Visions 2050 Topics

- Laws, Design Standards, and Design Guidance
- Project Processes, Communication, and Funding
- Complete Streets Design Considerations
 - Road Diets
 - Green Infrastructure
 - Traffic Signals
 - New Technologies
 - Level of Service Methodologies
 - Maintenance

Recommendations

- Finalize Complete Streets Design Guidelines
- Continue Educational & Technical Workshops
- Continue Documenting TIP Project Outcomes
- Recommend Pedestrian and Transit Level of Service Methodologies
- Collect Complete Streets Project Impact Data

Performance Measures

- Number of communities in the region adopting complete streets policies via governing body action
- Number of CDTC complete streets training sessions held and number of attendees
- Number of funded TIP projects including complete streets features
- Number of municipalities that maintain year-round usability
- Number of municipalities utilizing a checklist for project development

Complete Streets Comments:



Bicycle & Pedestrian Action Plan

Jennifer Ceponis jceponis@cdtcmpo.org

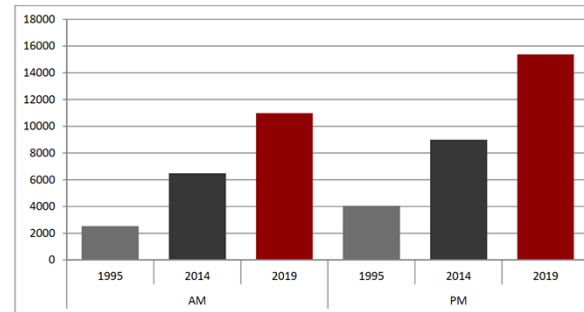
Planning & Investment Principle

Encourage bicycle and pedestrian travel and recognize walking and bicycling as socially, economically, and environmentally responsible and healthy approaches to improving the performance of our transportation system. Bicycle and pedestrian improvements will be considered from the perspective of developing a system and not just based on whether a particular facility is currently used. A regional system of sidewalks, bicycle facilities, and multi-use trails will encourage safe bicycle and pedestrian use.

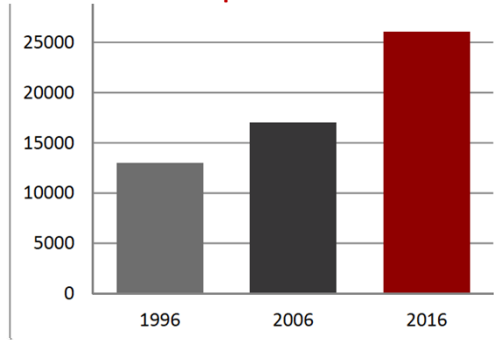
New Visions 2040 Progress

- Bicycle & Pedestrian fatal crashes & serious injuries have increased
- No change in the bike/ped mode share
- Public health – obesity & heart disease rates are declining while the number of people participating in physical activity has increased
- Economic activity unknown
- Increased funding for bike/ped projects
- Increased access to walking & bicycling infrastructure

Pedestrian Counts



Trails Users per Mile



CDPHP Cycle! User Stats

Category	2017	2018	2019	Total
Members	2,467	4,108	5,741	12,316
Trips	11,418	23,535	41,578	76,531
Hours Used	5,504	11,086	19,478	36,068
Miles	26,877	53,917.15	78,151	158,945.15
Carbon Reduced	23,701	47,544.12	68,915	140,160.12
Calories Burned	1,075,090	2,156,686	3,126,044	6,357,820

Miles of Bicycle & Pedestrian Infrastructure

Year	Trails (Mi.)	Sidewalks (Mi.)	Bike Facilities (Mi.)	Total (Mi.)
2009	74	-	-	-
2014	102	-	-	-
2016	118	-	-	-
2019	132	1,230	33	1,395

Major Accomplishments

- Capital District Trails Plan
- Level of Traffic Stress Analysis & Visual Preference Survey
- Capital Coexist Mini-Grant Program
- Bicycle & Pedestrian Infrastructure Data Collection & Inventory
- *CDPHP Cycle!* launch
- Bike/Ped Prioritization Tool a/k/a “Priority Network”
– to be updated in 2020

Capital Coexist Mini-Grants

Over **\$100,000** in mini-grants have been distributed to **32** local pedestrian & bicycle safety projects since 2016.



Mini-grants have provided funding for **7 demonstration projects** & distributed over **1000 free helmets** throughout the region.

Recommendations

- Develop a robust bicycle & pedestrian data collection program
- Measure the economic value of walking & bicycling infrastructure
- Plan to be Automated Vehicle (AV) – Ready
- Implement a regional trail network
- Explore integrating Health Impact Assessments (HIAs) into the metropolitan planning process
- Leverage remerging technology to promote walking & bicycling as transportation
- Cultivate partnerships in the Capital District
- Provide training, educational opportunities, tools & resources on bicycle & pedestrian design to local planners & engineers

Explain any strategies for increasing bicycling & walking that you feel were excluded & should be evaluated for inclusion in New Visions:

Bicycle & Pedestrian Action Plan Comments:



Freight

Chris Bauer cbauer@cdtcmpo.org

Background

- New Visions 2040 (2015) – Freight Plan White Paper was a scope-of-work for Freight Plan Update
- Regional Freight Plan
 - Developed 2015-2016
 - Adopted March 2016
 - Still mostly relevant
- New Visions 2050 Freight White Paper: update of plan's key major components
- Freight Advisory Committee (FAC)



CDTC Freight Advisory Committee

- Meets quarterly on the 3rd Wednesday of February, May, August, November
- Brings together public and private freight interests
- Makes advisory recommendations to CDTC's Planning Committee and Policy Board (i.e. the decision makers) to inform transportation funding decisions

Freight White Paper Timeline

- Materials prepared and released in advance of FAC meetings
 - FAC – May 15
 - Review NV process, timeline, and white paper outline
 - New Visions Principle
 - Freight Priority Network
 - Emerging Issues and Trends
 - FAC – August 21
 - Policies, Plans, and Recommendations
 - Performance Measures
 - FAC – November 20
 - Final Draft Freight White Paper Review
- December 2019 – Freight White Paper finalized

NV 2050 Freight White Paper – Outline

- I. Introduction - CDTC Regional Freight Plan (2016)
- II. Freight Planning & Investment Principle
- III. Freight Priority Network
- IV. Current and Emerging Issues and Trends
- V. Performance Measures
- VI. The FAST Act: Freight Provisions
- VII. New Visions Scenario Planning
- VIII. Projects, Programs, Policies, and Studies Recommendations
- IX. Freight & Environmental Justice
- X. Appendix

NV 2050 Freight White Paper – Outline

I. Introduction - CDTC Regional Freight Plan (2016)

II. Freight Planning & Investment Principle

III. Freight Priority Network

IV. Current and Emerging Issues and Trends

V. Performance Measures

VI. The FAST Act: Freight Provisions

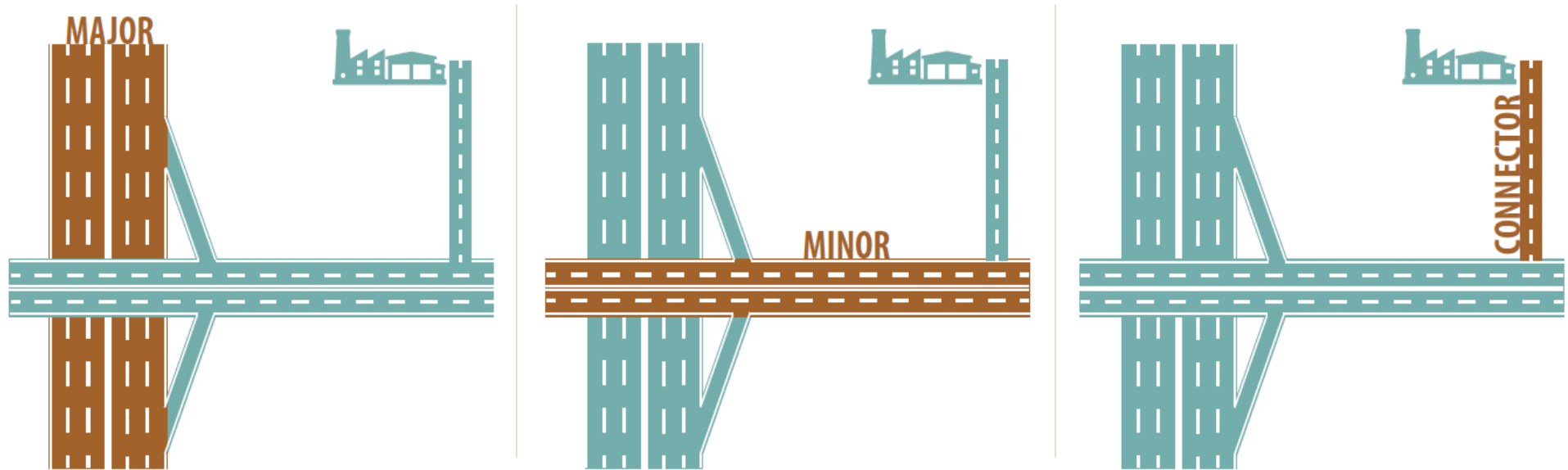
VII. New Visions Scenario Planning

**VIII. Projects, Programs,
Policies, and Studies
Recommendations**

IX. Freight & Environmental Justice

X. Appendix

Freight Priority Network (FPN) Classification



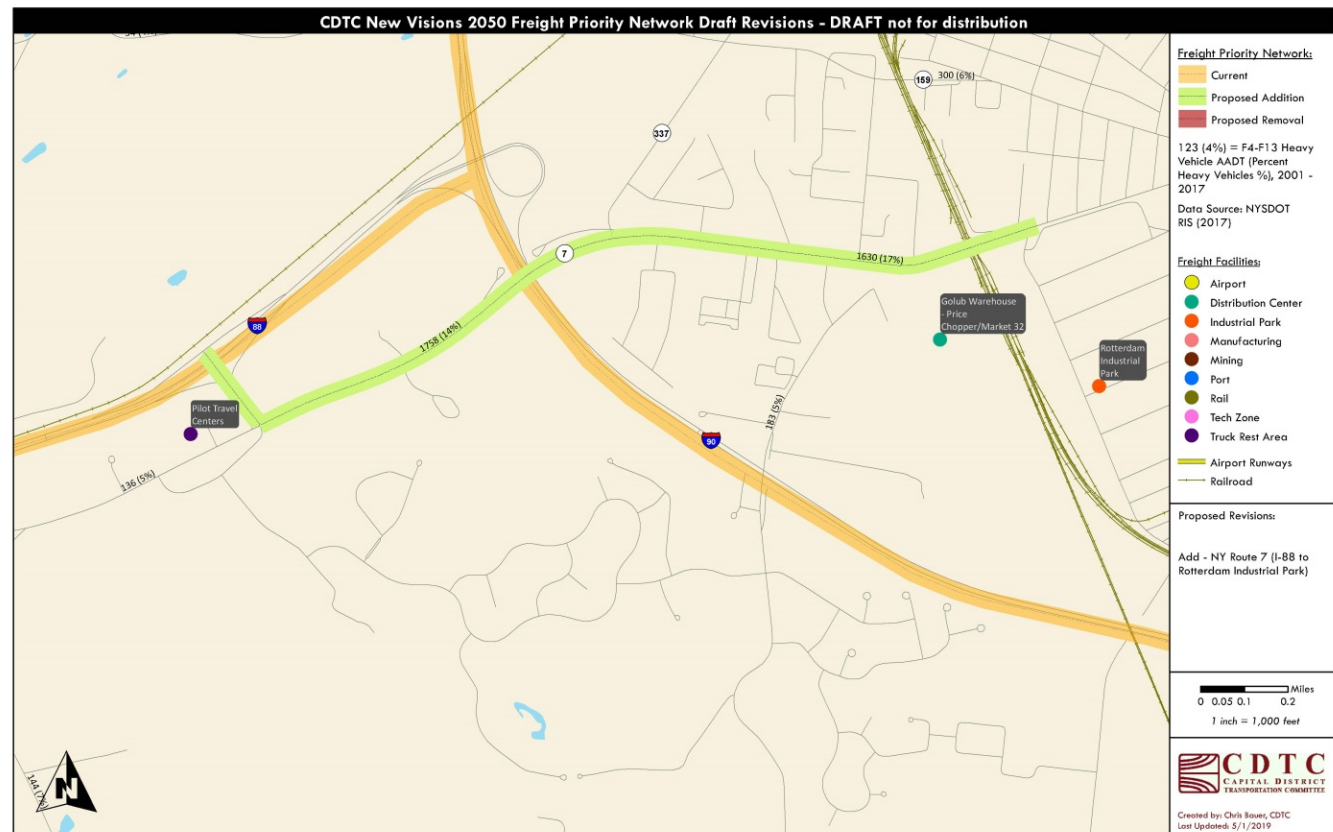
Proposed FPN Revisions

Add Connector: Everett Rd (I-90 to Commerce Ave) and Commerce Ave



Proposed FPN Revisions

Add Connector: NY 7 (I-88 to Rotterdam Industrial Park entrance)

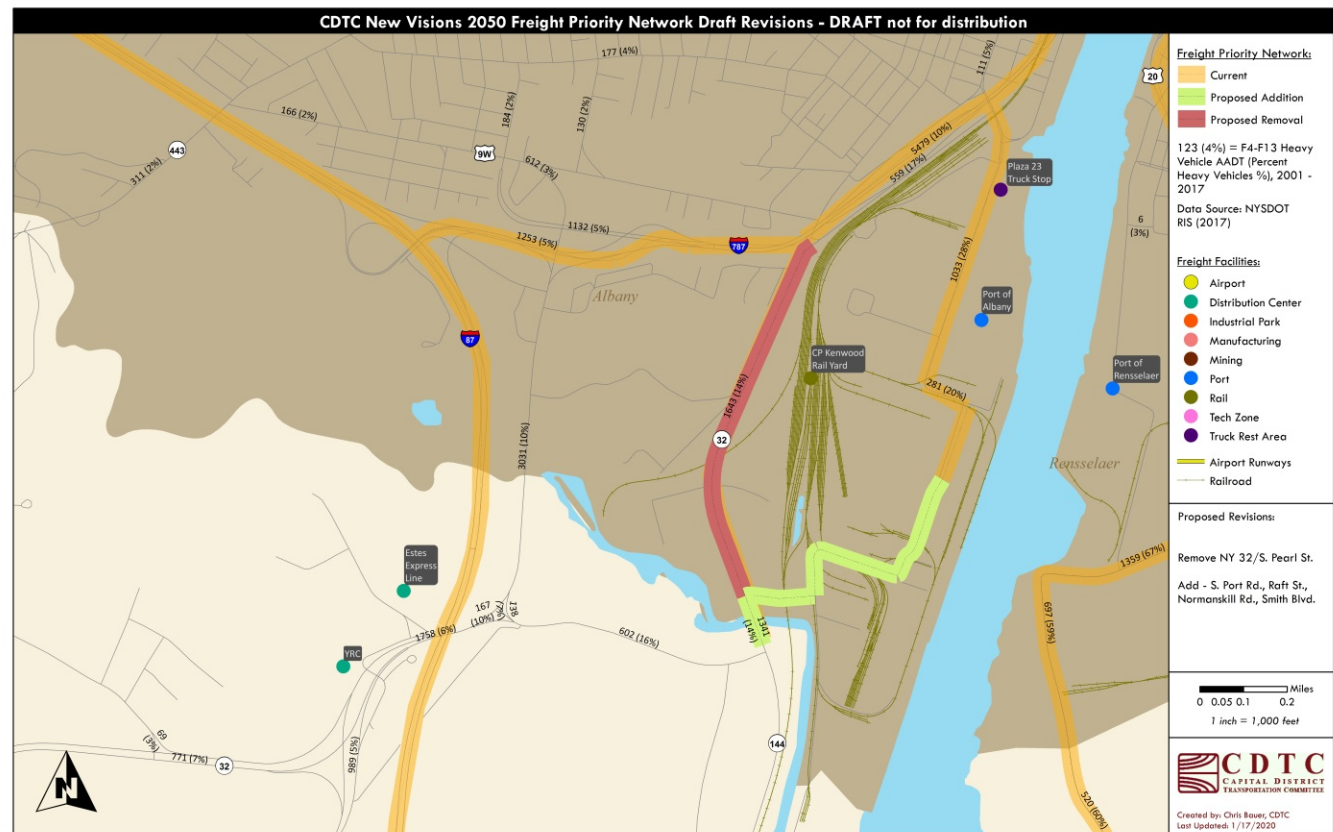


Proposed FPN Revisions

Remove: NY 32/S Pearl St
(I-787 to S Port Rd)

Add Connector: S Port
Rd, Raft St, Normanskill
Rd, Smith Blvd

Recommended in *City of
Albany S Pearl St Heavy
Vehicle Travel Pattern
Study* (CDTC, 2018)



Projects, Programs, Policies, and Studies Recommendations

- Proposed removal of projects (due to completion):
 - I-87 Exit 4 Albany International Airport Access Project
 - Port of Albany Expansion
 - Port of Albany Cargo Handling Capacity Upgrade

Projects, Programs, Policies, and Studies Recommendations

- Proposed new long-range projects:
 - Maintain a State-of-Good-Repair on FPN Pavements and Bridges
 - From the NY Statewide Freight Transportation Plan (August 2019); CDTC FAC supported addition to CDTC's long-range plan for consistency:
 - Castleton Bridge over Hudson River
 - Sand Bank Track/ Schenectady Mainline relocation
 - Port of Albany Track Rehabilitation
 - Voorheesville Runaround Track Construction

Projects, Programs, Policies, and Studies Recommendations

- Proposed removal of programs, policies, and/or studies:
 - FPN Bridge Improvement Prioritization – formalized as part of capital projects
 - I-787 Rail Relocation Feasibility Study - stakeholders have indicated this is not a feasible option

Projects, Programs, Policies, and Studies Recommendations

- Proposed new programs, policies, and/or studies:
 - NY 7 Freight & Land Use Study - Examine freight movement and operations to, from, and through the corridor, and land use implications

Freight Comments:



Transit

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Carrie Ward cward@cdtcmpo.org

Proposed Transit Principle

Innovative and viable transportation services will support concentrated development by providing equitable access to reliable and affordable transportation.

The transit system will:

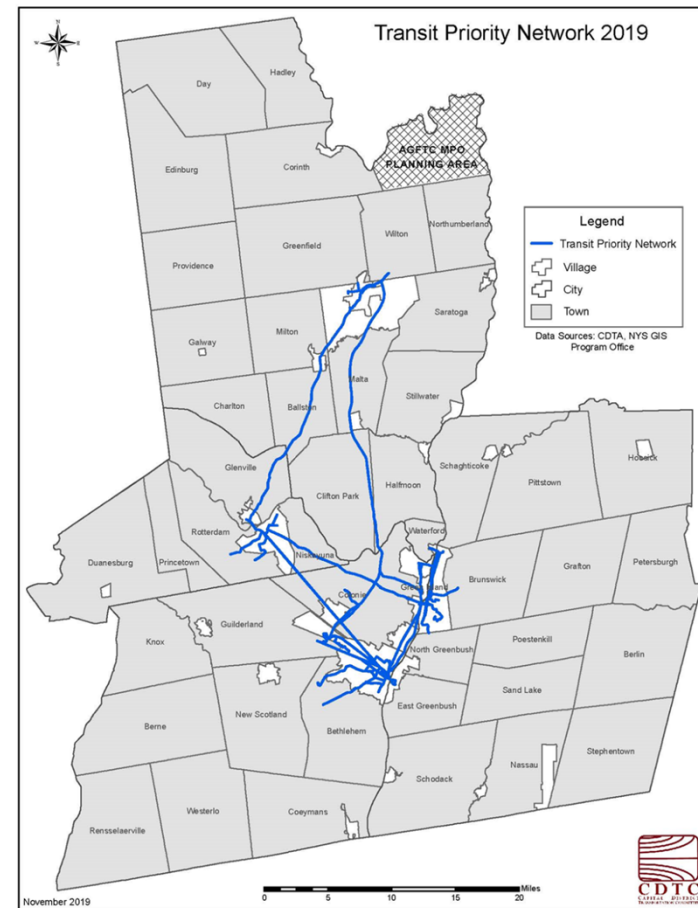
- Provide high quality fixed route transit in core areas
- Be an essential element of the social, economic, and cultural fabric
- Reduce congestion, improve air quality, and save energy
- Form the backbone for managing travel demand
- Provide essential mobility for those who do not operate a private vehicle

CDTA Transit Development Plan

2020 Update to be Integrated
into New Visions

Major Themes:

- Increase service on priority corridors
- Reduce geographic coverage
- Replace with new travel options



CDTA Transit Development Plan

Major Themes Continued:

- Mobility Hubs, Transit Center and Intermodal Centers
- BRT Expansion
- Facility Expansions
- Fleet Upgrades



Conceptual rendering of a mobility hub in Minneapolis, MN

Strategies and Actions

CDTA Initiatives:

- Complete and Upgrade 40 Miles of BRT
- Study Feasibility of Future BRT Lines and Bus Only Lanes
- Develop and Monitor Transit Related Pilot Programs
- Support State Worker Transportation Options
- Plan for an Albany Intermodal Station
- Plan for Montgomery County Transit Service
- Explore the Need for a Consolidated CDTA Facility
- Invest in a Safe and Sustainable Transit Fleet
- Develop an App for Public On-Demand Services
- Explore Conversion of Enhanced Bus Rapid Transit to Light Rail

Strategies and Actions

CDTC Initiatives:

- Consolidate New Visions Transit Performance Measures
- Revise Transit Priority Network and Merit Scoring Process
- Develop a Transit Access Toolkit
- Develop a Regional Parking Policy Guide
- Ensure Equity
- Support a New or Rehabilitated Livingston Avenue Bridge with Bicycle and Pedestrian Access
- Support High Speed Rail and Electrification

Transit Comments:



Human Services Coordination

Carrie Ward cward@cdtcmpo.org

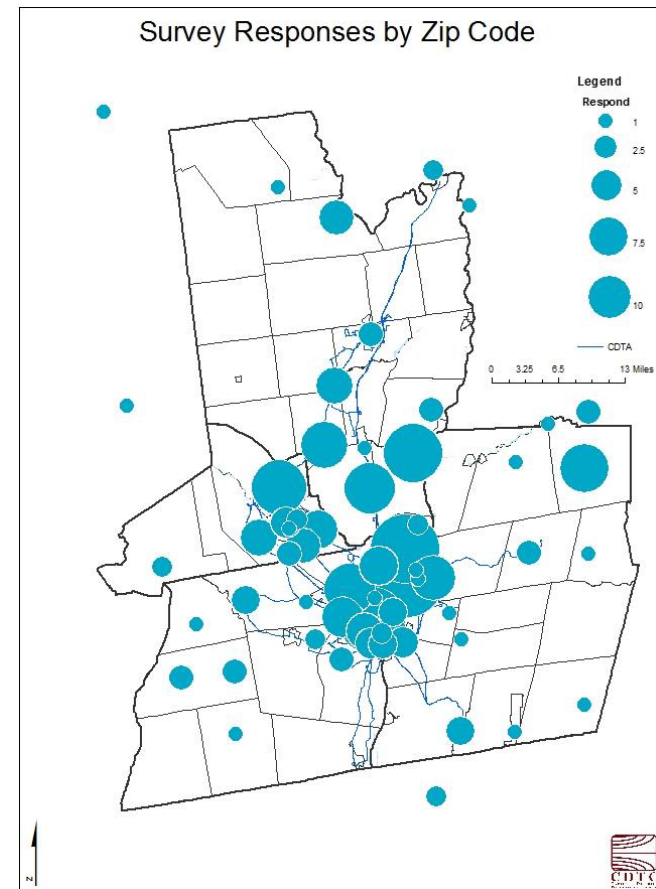
CDTC's Coordinated Plan

- Stakeholder & Public Participation
- Demographics & Spatial Patterns
- Existing Public Transit, Specialized Transportation Services
- Past Coordinated Planning Efforts, Funded Projects
- Needs, Gaps & Barriers
- Issues & Opportunities
- Strategies, Actions to Address Gaps, Improve Service Delivery

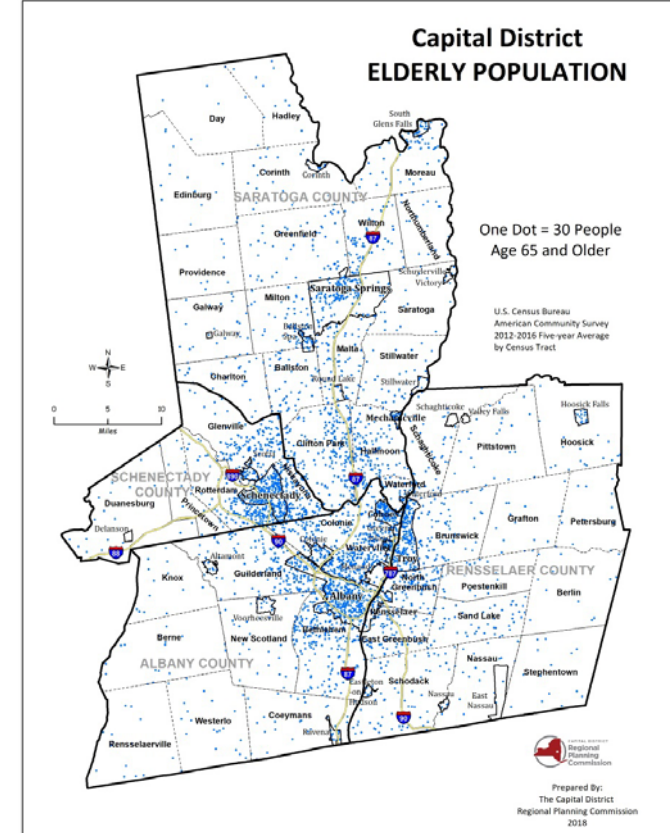
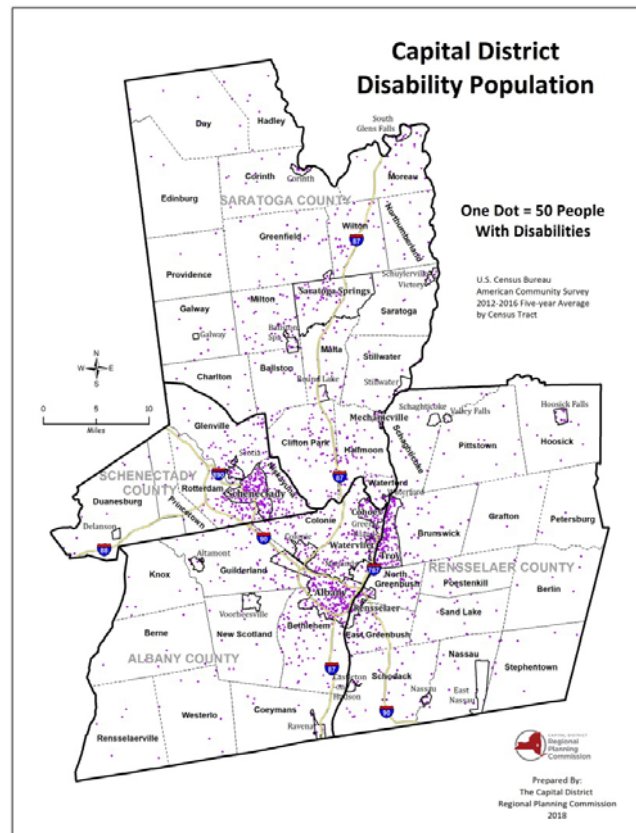
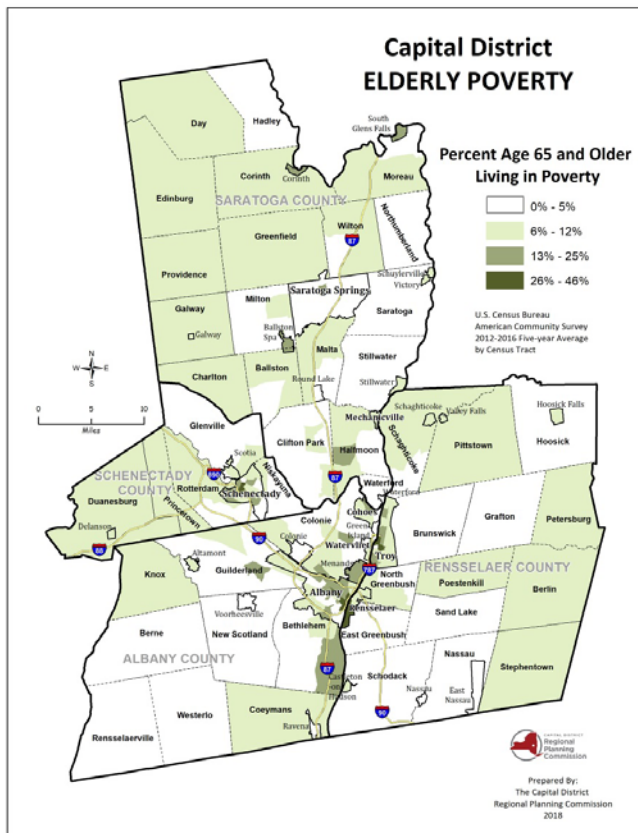


Stakeholder & Public Participation

- 250 Senior Transportation Surveys
 - CDTC visited 16 senior centers, available online
- 113 Transportation Surveys for People with a Disability
 - Random distribution to 200 STAR customers, available online



Demographics and Spatial Patterns



Specialized Transportation Services

Not-For-Profits & Other Entities – Saratoga County:

- American Red Cross-Adirondack Saratoga Chapter
- AIM Services, Inc.
- Birthright Inc.
- Adam Lawrence Corinth Senior Housing
- Belmont Management
- Experience Works
- Friendship House Saratoga County Mental Health
- Four Winds Hospital
- Galway Youth Commission
- Adirondack Manor HFA
- Head Start Family Education Program of Saratoga County
- Franklin Community Center
- Care Links Community Caregivers Programs
- Beacon Pointe Memory Care Community
- Helping Hands & Academy Nursery School
- Shelters of Saratoga
- Junior League of Schenectady & Saratoga Counties
- Adult & Senior Center of Saratoga Springs
- Northeast Career Planning
- Saratoga County Rural Preservation Company
- Saratoga Bridges
- Mechanicville Elderly Housing
- Shenendehowa Adult Community Center
- Home Instead Senior Care
- Sun Haven Manor
- Unlimited Potential- Day Program
- Cornell Cooperative Extension Association of Saratoga County
- CAPTAIN Youth & Family Services
- Catholic Charities of Saratoga, Warren, & Washington Counties
- Saratoga County Housing Alliance
- Coburg Village Retirement Community
- Gentiva Health Services
- Saratoga County Options for Independent Living (SCOIL)
- Mechanicville Area Community Services Center, Inc.
- Alcohol & Substance Abuse Prevention Council
- Wesley Health
- Visiting Nurses Services Association
- Greater Schuylerville Youth Program
- Transitional Services Association, Inc.
- Millview Assisted Living
- Saratoga Center for the Family
- Washington-Saratoga-Warren-Hamilton-Essex BOCES
- Community, Work, & Independence, Inc.
- Home Helpers
- Saratoga Hospital- Family Health Center
- The Charlton School
- Whitney Management Company- Westview Apartments
- Community Human Services Burnt Hills/ Ballston Lake
- Capital District DSO Community Residences
- Saratoga County Youth Commission
- Greater Schuylerville Youth Program

Past Coordinated Planning Efforts, Funded Projects

- Non-funding related
 - “Tools of the Trade” Workshop to Improve Service Quality and Efficiency
- Prior JARC and New Freedom funded projects
- Prior 5310 funded projects
- Detail purpose, amount, and year



Needs, Gaps, and Barriers

Needs

- Organizational – Human Service Agencies
- Client Services
- Equipment
- CDTA's STAR Service

Gaps

- Some Trip Purposes Not Well Served
- Geographic Coverage
- Weekend Coverage
- Travel/Mobility Training

Barriers

- Limitations on Coordinated Service Provision
- Client Resistance to Fixed Route Transit
- Barriers to Pedestrian System, Fixed Route Transit and Accessible Destinations



Issues and Opportunities

- Increasing Pedestrian Network Accessibility
- Americans with Disabilities Act (ADA) Transition Plans
- Education, Training to use Fixed Route Transit
- Emergency Preparedness for Transportation Disadvantaged Populations



Strategies and Actions

- Prioritize funding for shared agency services
 - Maintenance, Vehicle washing, Gas purchases, Replacement parts, Driver/Mechanic Training...
- Invite NYS DOH, OPWDD and Veteran's groups to participate in RTCC
- Hold a workshop focused on Service Quality and Efficiency
- Ensure listings of available services included in the 511NY paratransit services listings



Comments about the Human Services Coordination Plan:

TDM/ Mobility Management White Paper Summary



What is Transportation Demand Management?

Programs of information and incentives to help people learn about and use all available transportation modes

- Counterbalances the built-in incentives to drive alone

Services and Infrastructure

- Service examples: transit, microtransit, vanpooling, bikeshare, and carshare
- Infrastructure examples: bike lanes, transit centers, bike storage, and sidewalks

A principle that guides the design of our physical infrastructure

- Design that naturally encourages alternatives to driving
- Improves the balance among all travel modes

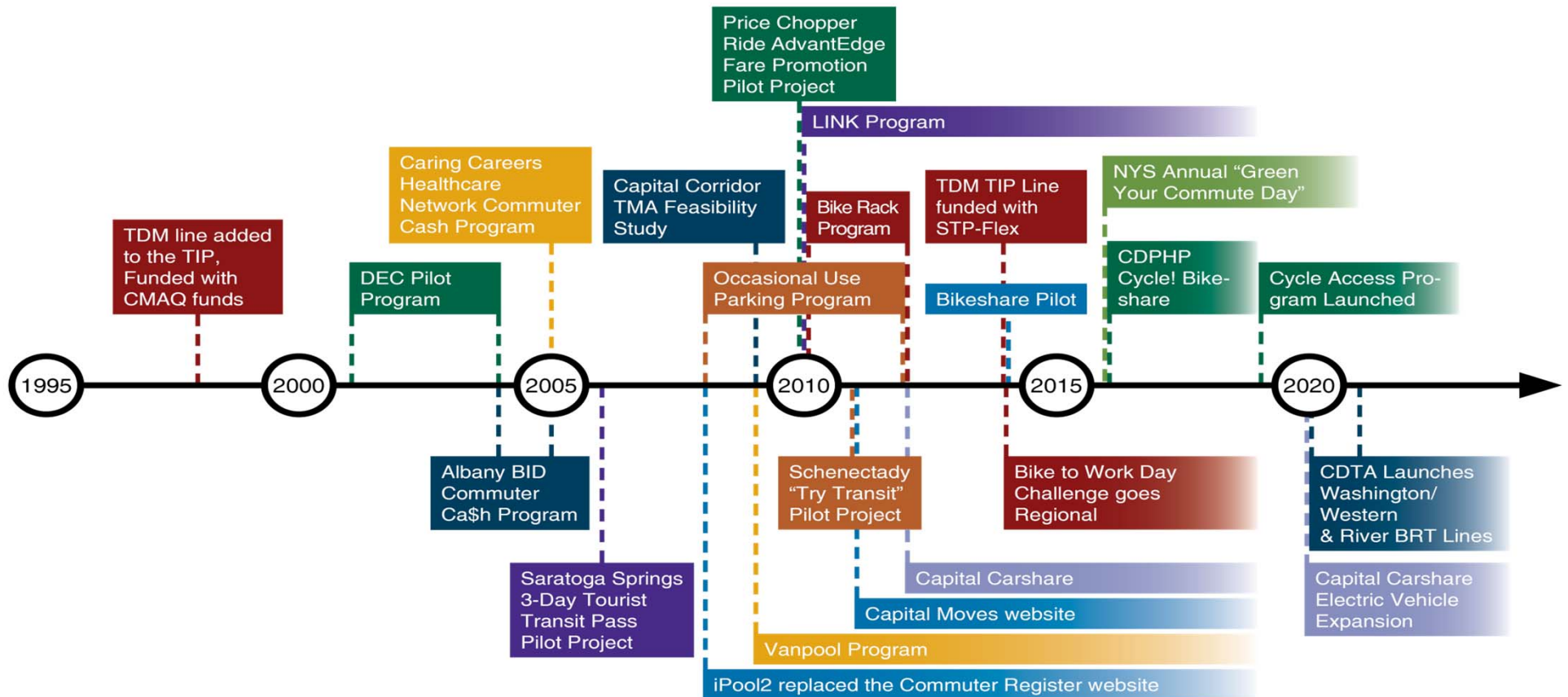
Proposed Principle Statement

Regional efforts will prioritize affordable and convenient travel options and programs that encourage behavioral shifts away from single occupancy vehicle (SOV) travel and help balance the transportation system among driving, biking, walking, taking transit, carpooling, vanpooling and telework.

Incorporating TDM into transportation planning helps optimize infrastructure and land use investments by balancing the system among all travel modes. Travelers in our region should be able to choose from an array of travel options for their work commutes and all other trips. Regional mobility programs and services make it easier for everyone to travel, regardless of the mode they choose. CDTC, all mobility service providers, employers and the region's municipalities should work together to increase access to all travel modes by encouraging the use of non-SOV modes and by expanding public and private infrastructure for non-SOV modes.

Regional decisions about transportation investments shall consider whether TDM programs and policies should be modified to address infrastructure capacity limitations before allocating funds to expand infrastructure.

Past & Present TDM Programs, 1997-2020



TDM Recommendations

- Short-term actions (1-5 years) to manage and expand existing TDM initiatives and identify new ones.
- Seek to balance efforts between programs, services and education about TDM principles

TDM Recommendations

“Take Home” Points:

- Many different TDM initiatives exist and are administered by multiple entities. Create a framework to help manage the regional TDM strategy.
- Improve collaboration between all TDM-related entities in the region.
- Increase data collection about regional commuters to improve marketing and outreach.
- Work to identify new initiatives

Explain any TDM strategies that you feel were excluded & should be evaluated for inclusion in New Visions:

TDM Comments:



Environment & Technology

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Chris O'Neill coneill@cdtcmpo.org

Planning & Investment Principles

- *Preserve the Environment – transportation choices should improve our environment, not harm it.* Environmental stewardship 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. Transportation investments will not encourage development in environmentally sensitive areas and will help to preserve rural character. Transportation investments will support alternative fuel vehicles and greenhouse gas reduction. Environmental best practices will be incorporated into all projects.
- *Leverage Technology – we must plan for new, smarter, better, rapidly-changing transportation technology.* Advancements in technology, such as self-driving cars, self-adjusting traffic signals, smart phone apps, ridesharing, carsharing, and bikesharing will have tremendous and wide-reaching impacts on future transportation. These impacts include, but are not limited to, decreasing congestion, providing transportation to more seniors and people with disabilities, reducing traffic crashes, and more.

New Visions 2040 Accomplishments

On the rise:

- GHG Emissions
 - Regionwide VMT
 - Energy use in transportation
 - % of TIP projects with a positive impact on GHG emissions
-
- ZEV Plan
 - Smart Communities Program Launch
 - Saratoga LED Streetlight Guidebook

Three Transportation Revolutions



Hybrid-electric and
all-electric vehicles

Electrification refers to the shift to EV technologies from petroleum-based fuels. In recent years battery electric and plug-in hybrid vehicles have increased in numbers in the region. Vehicle electrification has the potential to cut vehicle energy use and eliminate greenhouse gas emissions if power generation shifts away from fossil fuels.



Automated vehicles,
eliminating the need for
a driver

Anticipating connected and automated vehicles (C/AVs) is a major theme in long range transportation planning. The timeline for deployment of a vehicle that can travel without a driver is uncertain, but new vehicles are beginning to include C/AV features like adaptive cruise control, lane centering and automated breaking. A system dominated by self-driving cars by the year 2050 is not improbable. C/AVs can provide important safety benefits, reduce labor costs & enable cheaper travel & productivity.



Shared vehicle trips and
public transport

People took 84 million trips on shared bikes, e-bikes, and e-scooters in 2017 in the U.S. Shared mobility took hold in the Capital Region in 2014 with the launch of Capital CarShare and has since grown to a regional scale with *CDPHP Cycle!* bike share, operated by CDTA. Shared vehicle trips & public transport can lead to more efficient use of urban space, reduce traffic congestion enable more walking & bicycling, and cut energy use & emissions.

ZEV Plan

Scenario/Year	VERPAT VMT	GHG Emissions	Reduction from 1990	Reduction from 2015	Reduction from 2030	Reduction from 2050
1990	14,673,091	15,509,305	None	None	None	None
2015	17,476,681	13,960,139	-10%	None	None	None
2030 Trend	18,442,823	8,269,093	-47%	-41%	None	None
2050 Trend	18,708,916	4,275,491	-72%	-69%	-48%	None
2050 Optimistic EV	18,540,313	2,275,467	-85%	-84%	-72%	-46.80%
2050 Pessimistic EV	18,694,324	5,976,415	-61%	-57%	-28%	39.80%

	Albany-Schenectady		Saratoga Springs		New York	
	As of 2016	10% EV Market Share	As of 2016	10% EV Market Share	As of 2016	10% EV Market Share
Light-Duty Vehicles (as of 2016)	540,900	54,000	115,100	11,000	11,437,800	1,000,000
Workplace Level 2 Plugs Needed	*	1,189	*	271	*	21,716
Current Public Level 2 Plugs	307	744	62	166	3,199	13,602
Current DCFC Plugs	39	90	0	27	496	1,801

* Workplace charging includes private stations which are not tracked

Source: U.S. Department of Energy EVI-Pro Lite

C/AV Impacts

AV Scenario	Upshot	Impact on GHGs
Shared AV Fleet	VMT is significantly decreased	↓
Electrified AVs	Low to no emissions	↓
Expanded mobility	Seniors & people with mobility impairments can drive more and VMT increases	↑
Platooning vehicles	Road capacity & VMT increase	↕
Denser development	Walking, bicycling, & transit increase & VMT decreases	↕
Sprawl Inducing	Increased VMT	↑
Equitable access	Enhanced mobility options in underserved communities may increase VMT but may also benefit transit modes, leading to net VMT decrease	↑ ↓
Reduced demand for parking	AVs could operate without ever parking & increase VMT or parking spaces and lots could be redeveloped to support dense development & multimodalism, which could reduce VMT	↑ ↓
Increased highway speeds	AVs can travel faster, safer, which uses more energy	↑
Vehicle right-sizing	The average vehicle occupancy is 1.67 ²⁴ , but on-demand mobility could match individuals to a vehicle sized to match the needs of the trip, therefore reducing vehicle size which would use less energy.	↓
Increased long distance travel	Less driver burden could transfer trips typically taken by rail, intercity bus, or air to AVs	↑

Resiliency

Landslide in Schenectady in 2018



Photo credit: The Daily Gazette

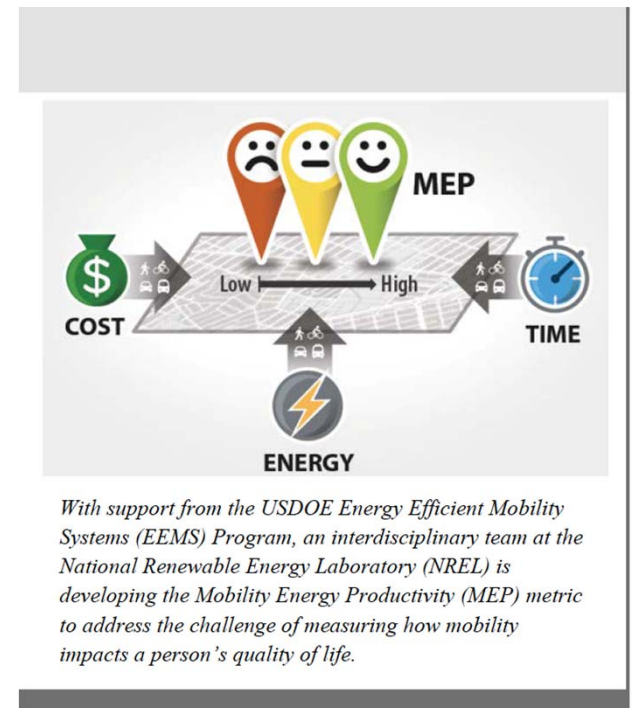
In early 2019, multiple ships broke loose on the Hudson River, slamming into the Livingston Avenue Bridge. The incident was caused by rising waters & ice jams from rapidly fluctuating temperatures (cold to warm & back to cold) in the region.



Photo credit: WNYT Albany

Recommendations

- Build a Virtual Forum for Cross-Disciplinary Coordination & Networking
- Develop a Climate Resiliency Plan & Vulnerability Assessment Tool
- Identify & Prioritize “Smart Corridors”
- Develop AV-Readiness Guidance for Municipalities
- Adopt new technologies & tools for virtual public involvement
- Compile GHG Emissions Data from Transportation
- Adopt the MEP Metric



Are there specific transportation technologies you would like to see evaluated and explored for adoption in the region? Explain:

Environment & Technology Comments:



Financial Plan

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Michael Franchini mfranchini@cdtcmpo.org

Draft Financial Plan for New Visions 2050

- CDTC's commitment to achieve **"steady progress"** across all categories, even if funding levels fall short of those needed for full implementation of all New Visions recommendations. Even under short-term fiscal challenges, CDTC expressed preference for "diet" rather than "retreat". A diet in this context reflects a healthy concern for balance.
-
- Constructing, maintaining, and operating the public transit system, intermodal facilities, bicycle and pedestrian network, and street and highway system included in New Visions 2050 will cost an **average of \$775 million each year** between now and 2050, including federal, state and local funding.
- CDTC's budget analysis asserts that **the 2050 Plan is fiscally balanced over time** - but only if public funding increases regularly over the upcoming decades as it has done in the past.
- CDTC has determined that it is not reasonable to anticipate that **resources will be in place to implement big ticket initiatives** - unless clear progress is made in securing a financial package for such initiatives.

Comments on the Financial Plan:
