



# 2030 Long Range Transportation Plan

**Prepared By: Edwards and Kelcey Inc. with Fitzgerald and Halliday Inc.**

## EXECUTIVE SUMMARY

### **What is the Ulster County Transportation Council?**

The Ulster County Transportation Council (UCTC) is the Federally designated Metropolitan Planning Organization (MPO) for the Ulster County, New York planning area. Ulster County is located midway between New York City and Albany. Created as a result of the population growth documented in the year 2000 Census, UCTC is one of the newest designated MPOs in the United States. An MPO is a federally required transportation policy and decision-making organization made up of representatives from local government and transportation agencies. MPOs were federally mandated in 1973 for areas with a population greater than 50,000 people. The Ulster County planning area, or urban boundary, includes the county boundary limits of Ulster County.

MPOs are responsible for the allocation of federal transportation funds within their planning area and to ensure that existing and future expenditures for transportation projects and programs are based on a “continuing, cooperative, and comprehensive” planning process. Federal funding for transportation projects and programs are channeled through this planning process.

UCTC is also responsible for guiding the metropolitan planning process for Ulster County by coordinating the information, tools and public input needed for improving and enhancing the transportation system of the region. The metropolitan planning process is designed to foster involvement by all interested parties, such as the business community, community groups, environmental organizations, and the general public, through a proactive public participation process conducted in coordination with the New York State Department of Transportation (NYSDOT) and local transit operators.

UCTC is a policy and decision making organization that includes local government and transportation agencies that have developed this Long Range Transportation Plan (LRTP), a Transportation Improvement Plan (TIP) and a Unified Planning Work Program (UPWP). The plans and programs developed are required to be in conformance with laws and guidelines that include Transportation Equity Act of the 21<sup>st</sup> Century (TEA-21), Title IV/Environmental Justice, American with Disabilities Act (ADA), and the National Environmental Policy Act (NEPA).

The UCTC is comprised of voting and non-voting members that include:

Ulster County Transportation Council Members (UCTC)		
Technical / Policy (Voting)		Advisory (Non-Voting)
<ul style="list-style-type: none"> <li>• Village of Ellenville</li> <li>• Village of Saugerties</li> <li>• Town of Gardiner</li> <li>• Town of Lloyd</li> <li>• Town of New Paltz</li> <li>• Town of Plattekill</li> <li>• Town of Rosendale</li> </ul>	<ul style="list-style-type: none"> <li>• Town of Saugerties</li> <li>• Town of Ulster</li> <li>• Town of Woodstock</li> <li>• City of Kingston</li> <li>• Ulster County</li> <li>• NYSDOT Region 8</li> <li>• NYS Thruway Authority</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Highway Administration</li> <li>• Federal Transit Administration</li> <li>• NYS Department of Environmental Conservation</li> <li>• NYS Bridge Authority</li> <li>• Federal Railroad Administration</li> </ul>

**Why is a Long Range Transportation Plan Needed?**

The Ulster County Long-Range Transportation Plan (LRTP) is a cooperative and comprehensive plan to guide transportation investments over a twenty-five (25) year horizon to the year 2030. Since the UCTC is a new MPO, this is the first MPO Long Range Transportation Plan to be prepared. As per the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, a Long-Range Transportation Plan is required of every MPO in the United States and is to include long and short-term multi-modal transportation improvement strategies and guidelines that focus on the mobility of people and goods. The LRTP will also serve as a blueprint that guides transportation development within the county over a twenty-five year period. The LRTP specifically looks at strategies that help to maintain the existing transportation infrastructure, identify alternative modes of transportation, address urban transportation concerns, the linking of transportation and land use development and environmental quality. A LRTP also must protect the value of investments already made in developing the present transportation system, while providing resources to pursue innovative solutions to mobility constraints and strategies to enhance multi-modal mobility throughout the county.

Valid technical analysis and transportation issues as presented in the previously completed 2003 Ulster County Transportation Plan, Year 2020 serve as a basis for the Ulster County Long Range Transportation Plan, Year 2030. Other completed or ongoing plans and studies that complement this LRTP include the 2000 Ulster County Transit Plan and the New Paltz Transportation / Land Use Study.

**The Goals of the Long Range Transportation Plan**

In conjunction with the UCTC and stakeholders, the following Goals for the LRTP were developed:

<b>Long Range Transportation Plan Goals</b>	
<b>Theme</b>	<b>Goal</b>
Facilities	Provide safe, clean, well maintained and efficient transportation infrastructure
Mobility	Increase the mobility options for residents and visitors of Ulster County
Safety	Enhance the safety and security of the people using the transportation system
Environment	Encourage environmentally sensitive transportation practices and policies for current and future residents
Economy	Direct Ulster County’s economic growth into sustainable areas and preserve the rural economy
Quality Communities	Promote efficient land use and a sense of community through transportation planning
Equity	Promote equity for system users

All recommendations considered as part of the LRTP were measured against their ability to meet these goals.

**Public Involvement Included as part of the Plan**

A significant Public Outreach Program was included as part of the development of the Long Range Transportation Plan. The program included the following:

- Project Website ([www.ulstertransportationplan.org](http://www.ulstertransportationplan.org)) - The website provided information on the purpose of the Plan, Plan status, schedules, and meeting times and locations. The Draft Plan was available on the website for downloading and comments could be submitted.
- Public Meetings - Two Public Meetings were conducted during the preparation of the Plan. The first was held on November 30, 2004 to introduce the purpose of the plan and to solicit input from the public through several breakout groups. The second Public Meeting was held on June 16, 2005 and presented the Draft LRTP.

- Stakeholder Meetings -- A series of stakeholders meetings were held over a two-day period in February 2005 to seek input and perspective from a broad range of stakeholders of the transportation system within and serving the county.
- Public Comment Period -- A public comment period was established to allow all interested persons, groups, etc., an opportunity to comment on the findings and recommendations contained in the Draft Plan. The comment period extended from June 3, 2005 to July 5, 2005. During this time the plan was available at the Ulster County Offices, local libraries and on the LRTP website.

The feedback received through the Public Outreach Program played a significant part in the development of the Plans recommendations.

**A Corridor Based Plan**

Corridor-oriented planning considers the transportation systems, land uses, and travel markets between urbanized areas, communities, and other destinations throughout Ulster County. Corridors identified represent dominant directional movements of persons and goods, as well as movement in localized travel markets. Delineations of the corridors as identified below are based on the analysis of existing and emerging travel and land use patterns within Ulster County and are tied to the various trip origins and destinations both within and outside the county. Building the Long-Range Transportation Plan around these corridors facilitated a regional and local understanding of transportation conditions and priorities within the county and will assist decision makers with accessing the transportation needs of the region.

The Ulster County corridors include the following:

<b>Long Range Transportation Plan Corridors</b>	
<b>Corridor</b>	<b>Figure Representation of Corridor</b>
1. US-9W - Hudson River/CSX	Figure 8: US-9W - Hudson River Corridor
2. I-87/NY-32/NY-208 - Wallkill Valley	Figure 12: I-87/NY-32/NY-208 - Wallkill Valley Corridor
3. US-209 - Rondout-Esopus	Figure 16: US-209 - Rondout-Esopus Corridor
4. NY-28 Catskills	Figure 20: NY-28 Catskills Corridor
5. US-44/NY-55/NY-299 - Shawangunk Mountain Corridor	Figure 24: US-44/NY-55/NY-299 - Shawangunk Mtn. Corridor

In addition to specific recommendations for each of these corridors, the LRTP also identified transportation needs on a countywide basis. Recommendations to address these countywide needs were also provided. Recommendations for strategies, studies and improvements for each corridor, and where appropriate countywide, were made based on a review of:

- The findings of the 2003 Ulster County Transportation Plan,
- The results of the Updated Travel Demand Forecasting for the year 2030 and
- Feedback received as part of the Public Outreach conducted.

While the County has several similar elements that are considered in the LRTP, the corridors are unique and as a result have their own needs and recommended initiatives to meet the Goals and Objectives.

### **Financial Plan**

The LRTP includes a financial plan consistent with existing and proposed transportation investments. The financial plan also demonstrates implementation costs of the projects, public and private financing and additional financing necessary for the LRTP. Federal, state and local governments primarily provide the funding. The total estimated cost for the recommended initiatives for the 25-year life of the Plan, including the maintenance on the State and Local System is \$1,153,880,000 compared to the funds available of \$888,200,000. Without additional funding, decisions will need to be made to delay projects or to delay desired maintenance on the existing highway system.

### **Summary of Findings**

The key findings of the Long Range Transportation Plan are:

- Significant population, housing and employment growth is forecasted in Ulster County between 2005 and 2030.
- Total Vehicle Miles of Travel is expected to increase by over 50% by 2030.
- The major Transportation Needs include maintaining the existing system, evaluate improvements to the CSX rail corridor, improve bicycle and pedestrian facilities and to study, document and prioritize all other needs in the County.
- The Plan is fiscally constrained in that not the entire desired initiatives can be accomplished without obtaining additional funding beyond what has been identified.

**What Happens Next?**

The UCTC will use the recommendations contained in the LRTP to prioritize the allocation of the limited transportation funds that are available. This can be accomplished by identifying the projects and studies that are advanced in the annual work program the Unified Planning Work Program (UPWP). Federal regulations also require that the LRTP be updated at least every five years to insure current transportation trends and funding are considered.

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## I. INTRODUCTION

### A. Ulster County Transportation Council (UCTC)

The Ulster County Transportation Council (UCTC) is the state designated Metropolitan Planning Organization (MPO) for the Ulster County planning area. Ulster County is located midway between New York City and Albany as shown on Figure 1: Regional Context of Ulster County. Created as a result of the population growth documented in the year 2000 census, UCTC is one of the newest designated MPO's in the United States. An MPO is a federally required transportation policy and decision-making organization made up of representatives from local government and transportation agencies. MPO's were federally mandated in 1973 for areas with a population greater than 50,000 people. The Ulster County planning area, or urban boundary, includes the county boundary limits of Ulster County. A map of the UCTC planning area can be found in Figure 2: UCTC Planning Area.

MPO's are responsible for the allocation of federal transportation funds within their planning area and to ensure that existing and future expenditures for transportation projects and programs are based on a "continuing, cooperative, and comprehensive" planning process. Federal funding for transportation projects and programs are channeled through this planning process.

UCTC is also responsible for guiding the metropolitan planning process for Ulster County by coordinating the information, tools and public input needed for improving and enhancing the transportation system of the region. The metropolitan planning process is designed to foster involvement by all interested parties, such as the business community, community groups, environmental organizations, and the general public, through a proactive public participation process conducted in coordination with the NYSDOT and local transit operators.

The metropolitan transportation planning process includes a number of steps:

- a. Forecasting future population and employment
- b. Assessment of projected land uses
- c. Identify and analyze critical corridors
- d. Develop alternative strategies for the movement of people and goods
- e. Estimate impact of alternatives on air quality (if in non attainment)
- f. Develop financial plan to address needs

Figure 1: Regional Context of Ulster County

Figure 2: UCTC Planning Area

The UCTC Policy Committee, represents the voting members that make decisions on multi-modal transportation issues of countywide significance, and decides which transportation projects are to be implemented. The UCTC Policy Committee consists both permanent and rotating members of chief elected officials and appropriate state agency representatives. Local government and transportation agencies that currently comprise the UCTC voting members include the following:

**Permanent Members**

Ulster County, UCTC Chair Richard Gerentine, Legislature Chair  
City of Kingston James Sottile, Mayor  
Town of Saugerties Gregory Helsmoortel, Supervisor  
Town of Ulster Fred Wadnola, Supervisor  
NYS Department of Transportation Robert Dennison, Region 8 Director  
NYS Thruway Authority Michael Fleischer, Executive Director

**Rotating Members (\* denotes current term)**

Town of Hurley\* Gary Bellows, Supervisor  
Town of Rosendale Bob Gallagher, Supervisor  
Town of Esopus\* Ray Rice, Supervisor  
Town of Lloyd Robert Shepard, Supervisor  
Town of Marlborough\* Thomas Coupart, Supervisor  
Town of Plattekill Lawrence Cavazza, Supervisor  
Town of Shawangunk\* John Valk, Jr., Supervisor  
Town of New Paltz Don Wilen, Supervisor  
Town of Wawarsing\* James Dolaway, Supervisor  
Town of Woodstock Jeremy Wilber, Supervisor  
Town of Kingston\* Dennis Weiss, Supervisor  
Village of Ellenville Jeff Kaplan, Mayor  
Village of New Paltz\* Jason West, Mayor  
Village of Saugerties\* Robert Yerick, Mayor

The Policy Committee is supported by a Technical Committee, consisting of public and private officials and specialists whose experience relates to all aspects of transportation. In addition to the policy committee the UCTC is supported by an Advisory Committee to help guide the transportation planning process.

UCTC non-voting advisory members include:

- Federal Highway Administration
- Federal Transit Administration
- NYS Department of Environmental Conservation
- NYS Bridge Authority
- Federal Railroad Administration

The responsibilities of an MPO are the following:

- Development of a Long Range Transportation Plan (LRTP)
- The Transportation Improvement Plan (TIP)
- A Unified Planning Work Program (UPWP) for its metropolitan planning area
- Public Involvement

The adoption of these documents is a prerequisite for the receipt of both federal transit and federal highway funding. The plans and programs adopted by the MPO must comply with federal laws and guidelines of the Transportation Equity Act of the 21<sup>st</sup> Century (TEA-21), Title IV/Environmental Justice, American with Disabilities Act (ADA), and the National Environmental Policy Act (NEPA). The MPO planning process is also structured to include public outreach to allow residents opportunities to provide input. Special attention must be given to involving those groups who are underrepresented or have been underserved in the past in terms of expenditure of transportation dollars.

## **B. Purpose of the Long Range Transportation Plan**

The Ulster County Long-Range Transportation Plan (LRTP) is a cooperative and comprehensive plan to guide transportation investments over a twenty-five (25) year horizon to the year 2030. Since the UCTC is a new MPO, this is the first MPO Long Range Transportation Plan to be prepared. As per the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, a Long-Range Transportation Plan is required of every MPO in the United States and is to include long and short-term multi-modal transportation improvement strategies and guidelines that focus on the mobility of people and goods. The LRTP will also serve as a blueprint that guides transportation development within the county over a twenty-five year period. The LRTP specifically looks at strategies that help to maintain the existing transportation infrastructure, identify alternative modes of transportation, address urban transportation concerns, the linking of transportation and land use development and environmental quality. A LRTP also must protect the value of investments already made in developing the present transportation system, while providing resources to pursue innovative solutions to mobility constraints and strategies to enhance multi-modal mobility throughout the county.

A Long-Range Transportation Plan is required by ISTEA to contain the following elements:

- a. Identify policies, strategies, and projects for the future
- b. Determine project demand for transportation services at least 20 years
- c. Focus at the systems level, including roadways, transit, non-motorized transportation, and intermodal connections
- d. Articulate regional land use, development, housing, and employment goals and plans
- e. Estimate costs and identify reasonably available financial sources for operation, maintenance, and capital investments
- f. Determine ways to preserve existing roads and facilities and make efficient use of the existing system
- g. Be consistent with the state transportation plan
- h. Be updated every five years or three years in air quality non-attainment and maintenance areas

This LRTP for Ulster County provides for all of these elements. The UCTC voting and advisory members were actively engaged in the development of the plan. The long-range plan also considered public input that was received through the public outreach efforts.

### **C. Federal Funding Process**

The funding for transportation plans and projects comes from several sources, including the federal government, state governments, special authorities, assessment districts, local government contributions, impact fees, and tolls. However, in most metropolitan areas, federal highway funding is a reimbursement program that is first instance funding then reimbursed at normally an 80% rate by the Federal Government. New York State allocates the States highway funds among the eleven regions of the New York State Department of Transportation (NYSDOT). The Regions work cooperatively with the MPO's to manage the Federal highway funds. The financing provisions introduced in 1991 with the enactment of the Intermodal Surface Transportation Equity Act (ISTEA) and continued in 1998 with the reauthorizing legislation known as the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) are obtained through the Federal Highway Trust Fund and supplemented by general funds. Most of the sources of Federal Highway Administration (FHWA) funding in New York State are administered by the NYSDOT. The NYSDOT then allocates the money to urban and rural areas, based on local priorities and needs. Most transit funds for urban areas are sent directly from the Federal Transit Authority (FTA) to local transit operators. Transit funds for rural areas are administered by NYSDOT.

#### **D. Environmental Justice**

The goal of Environmental Justice (EJ) is to ensure that services and benefits are distributed fairly to all people, regardless of race, national origin, or income and that they have access to meaningful participation. The legal foundation for environmental justice is derived from Title VI of the Civil Rights Act of 1964, which prohibits exclusion, denial of benefits or discrimination under any program or activity receiving federal assistance. As the agency responsible for coordinating the LRTP, UCTC must ensure that all segments of the population have been involved with the planning process. From this evaluation gaps, unmet needs, or inconsistencies can be modified as to leave no group underserved. Environmental justice should also to be applied at the project level in regards to those in the affected project area and needs they may have. Ultimately, environmental justice is a practice that ensures federal funds are not used in anyway to intentionally or willfully discriminate or negatively effect underserved, underrepresented, minority, or lower income people.

The UCTC and this LRTP incorporates EJ into its evaluation of transportation needs and recommendations for transportation solutions. The evaluation process for placing projects on the TIP gives preference to those that address EJ, the public involvement portion of the LRTP preparation solicited feedback from all segments of the population and the recommendations for initiatives contained in the LRTP included EJ as part of the evaluation matrix.

#### **E. Other Planning Initiatives**

The preparation of this LRTP is not the only initiative being advanced to address the transportation needs in Ulster County. The other planning initiatives that have been recently completed, or are currently under way or will start soon include the following:

1. The 2003 Ulster County Transportation Plan
2. The Ulster County Transit Plan
3. The New Paltz Transportation/Land Use Study

The following is a quick summary of these initiatives and how they relate to the LRTP.

##### **1. The 2003 Ulster County Transportation Plan**

The 2003 Ulster County Transportation Plan was prepared for the Ulster County Planning Board in April of 2003. The plan describes in detail the existing transportation system in Ulster County and presented an analysis of the transportation needs to the year 2020. Additionally, the plan provided a package of “Primers” to provide local officials technical guidance when considering Transportation issues. The Primers consisted of:

- 
- Transportation Strategies for Quality Communities
  - Bicycle & Pedestrian Handbook for Local Communities
  - Access Management Guidelines

These Primers and most of the Technical Analysis conducted for these plans are still valid and are considered to be part of this LRTP. The LRTP analysis will extend the forecast year to 2030 to be consistent with other LRTPs being completed in the surrounding communities.

## **2. The Ulster County Transit Plan**

Ulster County is currently progressing a study entitled “Ulster County Fixed Route Public Transportation Coordination and Intermodal Opportunities Analysis”. This study will assess the current state of the transit service in Ulster County in the following areas:

- Service
- Facilities
- Fares
- Marketing

An initial report of the Ulster County Transit Plan was completed in July 2005. Preliminary recommendations in the report included:

- New intermodal center in Kingston
- Coordinated service between UCAT & CitiBus
- New and expanded park and ride lots at strategic locations
- Additional service in New Paltz.

Adoption of the final report is expected by the end of 2005. The LRTP suggests adoption of these recommendations upon finalization of the report.

**3. The New Paltz Transportation/Land Use Study**

The Town of New Paltz in collaboration with NYSDOT has sponsored a Transportation and Land Use Study for New Paltz that is studying existing transportation conditions, identifying present and future transportation demands, formulating, analyzing, and evaluating alternative transportation solutions. Development of consensus decisions regarding short and long term improvement programs for a comprehensive area improvement plan will include both land use and access management planning. The project was initiated in August of 2003 and is currently scheduled to be completed by the end of 2005. These initiatives have or are currently addressing specific transportation issues within Ulster County and complement and/or enhance the findings of this Long Range Transportation Plan.

## II. PUBLIC INVOLVEMENT PROGRAM

### A. Federal Requirements

A public involvement program is federally mandated of every MPO as part of the LRTP process. The objective of the public involvement program is to ensure that the concerns and issues of all stakeholders regarding transportation decisions are identified and addressed in the development of the policies, programs, and projects being proposed in their communities. The public involvement program needs to involve the general public, such as residents, anyone who has an interest in transportation decisions or does business in a given area potentially affected by transportation decisions. The general public includes individuals and organized groups. Private and public providers of transportation services, such as trucking and rail freight industries, rail passenger industry, taxicab and shuttle operators, and all transit and paratransit service operators must all be provided opportunities to participate in the public involvement program. Persons underserved by the existing transportation systems also are encouraged to participate in the transportation decision-making process. Communication and collaboration between federal, state, and local agencies is essential and needs to be pursued early in the transportation decision-making process.

### B. Ulster County LRTP Public Outreach Plan

As the agency responsible for coordinating the regional transportation planning process, UCTC actively involves all parties in an open, cooperative, and collaborative process that provides meaningful opportunities to influence transportation decisions. As part of the regional transportation planning process, public workshop meetings were held to receive input from citizens, local stakeholders and organizations regarding the transportation issues within Ulster County. Attendees of the workshops were given opportunities to voice their concerns and make suggestions regarding the transportation needs of the region.

The following items are some of the methods that UCTC has implemented to inform and invite the public to participate in the program:

#### 1. UCTC Long-Range Transportation Plan Web Site [[www.ulstertransportationplan.org](http://www.ulstertransportationplan.org)]

In November of 2004, UCTC launched the LRTP Web Site, which contains general information on the LRTP, announced public workshop meeting dates, stakeholder meetings, and other pertinent news and developments. Meeting minutes and finalized project documents were also made available to the public on the web site. Furthermore, comment sheets were available on the website to receive comments and questions regarding the LRTP.

## 2. Public Workshops

Public workshops were held as part of the LRTP process. The first Public Workshop was held on November 30<sup>th</sup>, 2004, where participants discussed and learned about the Ulster County LRTP. The purpose of the workshop was to review the known existing transportation concerns, explore new ideas with respect to both problems and concerns, and initiate and provide an opportunity for public input. During the meeting, the study team presented the purpose of the LRTP, the vision and goals of the plan, and the plan guiding factors. The schedule for completion of the LRTP was discussed and opportunities for further public comment, including the project web site, were announced.

Following the presentation by the study team, attendees broke into four groups for the workshop portion of the evening. Each of the small groups discussed the transportation challenges and barriers facing Ulster County, as well as potential improvements and solutions to these problems. Some of the common issues and problems identified by the groups were:

*LRTP presentation – 11/2004*

- traffic congestion
- roadway maintenance
- public transportation needs
- increased accommodations for pedestrian and bicycle usage (i.e., crosswalks, multiuse trails)
- roadway safety concerns around schools
- suburban sprawl

Some of the common solutions suggested were improved traffic signal timing and coordination, more use of roundabouts, consistent road shoulders, better land use policies, and more rail (both passenger and freight) alternatives. Attendees stressed the need to connect the various modes of transportation for an overall improved quality of life.

The second public workshop was held on June 16, 2005, where the draft of the LRTP was presented. Comments on the draft LRTP were reviewed and incorporated into the final plan.

### 3. Local Stakeholder Meetings

A series of stakeholders meetings were held over a two-day period to seek input and perspective from a broad range of stakeholders of the transportation system within and serving the county. This input was helpful to support the update of the Ulster County Long-Range Transportation Plan. The meetings were hosted by the Ulster County Planning Department and were held in the County Office Building (with the exception of the City of Kingston meeting which was held in City Hall).

The attendees of the meetings were representatives from the following stakeholder groups:

- Human Services Agencies
- Transportation Agencies
- Emergency Responders
- Municipal Leaders
- Citizens/Special Interest Groups
- City of Kingston
- Tourism and Hotel/Resort Interest Groups
- Transit Operators Group
- Education Groups (Elementary, Secondary, and Post Secondary)

All of the attendees were asked a series of questions related to the transportation system of Ulster County. The series of questions addressed the existing transit system, highway and roadway infrastructure, bicycle and pedestrian issues, and land use. The questions were designed to receive input on the current transportation system and recommendations for improving the system. The different stakeholder groups assisted in giving a broad range of comments from all interest groups throughout the county. The answers to all questions and additional comments received from the local stakeholders assisted in analyzing the mobility issues within the county and making recommendations.

Key issues that local stakeholders discussed with the project team include:

- A traffic circulation and parking study and a Master Plan are needed for the City of Kingston
- Shoulders are needed along all county and local roads for improved bicycle accommodations
- The tourist industry is one of the largest industries in Ulster County, and understanding the transportation needs of the industry as well as providing the transportation improvements that are necessary is one key to continued economic development in the County.
- Coordination and integration of transit services and modes is needed
- Intermodal transportation facility is needed in the City of Kingston
- Traffic safety and circulation issues exist because of the CSX railroad line. The CSX corridor creates a “boundary” for emergency responders and the general population
- A traffic engineer position for the City of Kingston or the County of Ulster should be funded
- Policies to control the size of local delivery trucks in hamlets and town centers should be investigated

The comments received at the stakeholder meeting were used to help determine the key issues and improvement strategies presented in the plan.

#### **4. Public Comment Period**

A public comment period was established to allow all interested persons, groups, etc., an opportunity to comment on the findings and recommendations contained in the Draft Plan. The comment period extended from June 3, 2005 to July 5, 2005. During this time the plan was available at the Ulster County Offices, local libraries and on the LRTP website.

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**III. GOALS AND OBJECTIVES OF THE LONG-RANGE TRANSPORTATION PLAN**

The Ulster County Staff, with assistance from the Advisory Committee, Developed the following goals for the LRTP:

- FACILITIES - To provide safe, clean, well maintained and efficient transportation infrastructure
- MOBILITY - To increase the mobility options for residents and visitors of Ulster County
- SAFETY - To enhance the safety and security of the people using the transportation system
- ENVIRONMENT - To encourage environmentally sensitive transportation practices and policies for current and future residents
- ECONOMY - To direct Ulster County's economic growth into sustainable areas and preserve the rural economy
- QUALITY COMMUNITIES - To promote efficient land use and a sense of community through transportation planning
- EQUITY - To promote equity for system users

The specific objectives for each goal are listed below:

GOAL 1: FACILITIES - Provide safe, clean, well maintained and efficient transportation infrastructure

Objectives:

- Preserve and maintain the existing transportation infrastructure
- Develop and maintain a pavement and bridge management system to track and assess pavement and bridge conditions
- Make maximum use of existing facilities to minimize demands on scarce community resources
- Expend capital, maintenance and operating dollars as effectively and efficiently as possible to minimize lifetime system and maintenance and user costs
- Identify corridors that contain high traffic volumes and congestion as the result of daily work trips and recreational/seasonal trips and develop solutions
- Update the Ulster County Travel Demand Model to include mode-split capability and update population and economic forecasts for the county
- Develop a public outreach program to reach out to all cities, villages, and hamlets within Ulster County and rural, agricultural, and recreational areas of the county

GOAL 2: MOBILITY - Increase mobility options for residents and visitors of Ulster County

Objectives:

- Promote highway engineering standards to reduce traffic impacts in urban locations, such as cities, villages, and hamlets
- Promote highway engineering standards and guidelines to encourage alternate modes of transportation such as transit, bicycles, and pedestrian
- Identify and implement Transportation Demand Management (TDM) and Transportation Systems Management (TSM) policies to reduce congestion and Single-Occupancy Vehicle (SOV) usage in urban areas and along corridors containing a high level of traffic volume
- Develop biking and walking opportunities to offer alternate modes of transportation
- Identify strategies to link the transportation network with the recreational and tourist attractions of Ulster County, promoting tourist and economic opportunities and increasing mobility for tourist and seasonal travel
- Increase connectivity of various transit operations existing throughout the corridors to provide for increased transit opportunities for all users in the region

*Increase Mobility*

GOAL 3: SAFETY – Enhance the safety and security while promoting more efficient emergency response systems for the people using the transportation system

Objectives:

- Identify high-accident corridors and site specific locations and implement strategies to increase safety at these locations
- Implement traffic calming techniques within urban areas such as cities, villages, and community centers
- Support traffic safety education and traffic enforcement efforts
- Propose a continuing system of accident evaluation, which includes all modes of transportation
- Implement bicycle and pedestrian rules and regulations to increase safety and enhance multi-modal coordination
- Catalogue all sections of roadway shoulders throughout the region to create an update and expansion plan with a goal of standardization of all roadway shoulders in the region
- Propose a system to provide clear alternative routes/detours/signal preemption through areas of congestion and blockages for the purpose of improving the efficiency of emergency response
- Evaluate CSX Corridor for safety and quality of life issues

GOAL 4: ENVIRONMENT – Encourage environmentally sensitive transportation practices and policies for current and future residents

Objectives:

- Identify, protect and enhance environmental resources and mitigate impacts where projects warrant
- Propose transit solutions to protect environmental resources such as air quality
- Explore alternative fuels for transit to lessen air pollution where feasible
- Adopt a Congestion Management System strategy that includes relieving congestion that affects air quality
- Provide consistent water quality and stormwater programs associated with the transportation system including roadside ditch and landscaping protocols
- Study and Implement appropriate scenic byways in the County

GOAL 5: ECONOMY – Direct Ulster County’s economic growth into sustainable areas and preserve the rural economy

## Objectives:

- Provide goods movement and services for all needed activities including agriculture and commerce
- Identify freight movement within identified critical corridors and develop strategies to enhance freight movement to economic hubs along the critical corridors and within Ulster County
- Implement designs adequate to the needs of freight movement in areas where freight movement is most prevalent
- Identify feasible roles and needed improvements for the region’s harbors
- Identify the needs for the six small general aviation airfields in the county to increase their benefits to business and recreational users
- Support tourism services and encourage transportation projects to accommodate seasonal and daily travel
- Identify traffic needs surrounding known retail centers and tailor long range planning in those areas to promote existing retail and future growth

GOAL 6: QUALITY COMMUNITIES – Promote efficient land use and a sense of community through transportation planning

## Objectives:

- Create multi-modal transportation centers within urban areas (cities, villages, community centers) to facilitate transit usage and bicycle and pedestrian opportunities
- Develop Transit Oriented Development (TOD) guidelines and supporting regulations
- Design bicycle and pedestrian facilities in downtown areas to reduce SOV travel
- Improve communication and coordination among state, county, and local officials
- Develop programs and implement strategies that educate the local decision makers on the links between land use programs and transportation
- Coordinate regional and local municipal plans to insure mobility and multi-modal systems
- Implement contextual design solutions

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GOAL 7: EQUITY - Promote and expand the equity for system users

Objectives:

- Complete an inventory of existing services and provide additional transit services to urban areas or community centers lacking in appropriate transit services
- Implement strategies to increase transit service along identified critical corridors within Ulster County
- Provide transportation services for the transportation-disadvantaged population including the disabled
- Provide local transit service to long-distance transit services and transit services outside of Ulster County
- Identify areas and populations where lack of automobile availability is a constraint to travel and propose feasible transportation solutions
- Utilize principles of environmental justice to ensure that all groups are served well by the transportation system

**IV. ULSTER COUNTY CURRENT AND FUTURE CONDITIONS ASSESSMENT**

Evaluations of transportation systems are based on several factors including demographics, land use, the existing transportation network, (such as roadways, transit and other modes of transportation) and travel behavior. The population, employment and housing are the main generators of travel demand within the county. Therefore, to understand the current and future travel demand in Ulster County requires an examination of the current population, employment and transportation systems and identification of the likely conditions in the year 2030.

**A. Population and Economic Forecasts**

The 2000 census provided baseline population and employment data for Ulster County. The Ulster County Planning Department developed population and economic forecasts to the year 2030. Table 1 summarizes this information.

Table 1: Ulster County Demographic Summary

	2000 Census	2030 Forecasted	% Change
Households	67,499	94,710	40%
Population	177,749	225,160	26%
Employment	61,200	92,040	50%

Overall, population within Ulster County is projected to increase by 26.6%, between 2000 and 2030, with the total population increasing to 225,160, representing a net gain of 47,411 persons or an average annual growth rate of 0.95%. The average annual growth rate for the State of New York, between 2005 and 2025, is 0.42%, indicating the forecasted growth rate for Ulster County exceeds the statewide average.

The total employment for Ulster County, in 2000, was 61,200 and is projected to increase to 92,040 by the year 2030. Representing a net gain of 31,100, or 1.66% per year.

Total households, or occupied units, within Ulster County, are expected to increase from 67,499 to 94,710 between 2000 and 2030. This represents an increase of 40.3% in the amount of occupied units. A map that shows the projected change in dwelling units, by area is shown in Figure 3: Change In Households (2000-2030). A map that shows the projected change in total employment (retail and non-retail) by area is shown in Figure 4: Projected Change In Employment (2000-2030).

Figure 3: Change In Households (2000-2030)

Figure 4: Projected Change In Employment (2000-2030)

## **B. Ulster County Commuting Patterns**

The home to work commuting patterns for residents of Ulster County as reported in the 2000 census data are illustrated in Figure 5: Where Ulster County Residents Work (2000 Census Data). The data reveals that over 90 percent of the employed population within Ulster County work in Ulster, Orange or Dutchess Counties.

## **C. Transportation Model**

To assess the current and projected traffic conditions a transportation model was used as a traffic forecasting and analysis tool. As part of the development of this LRTP the existing Transportation Model that was based on the TModel2 platform was converted to the TransCAD platform. TransCAD is GIS based modeling platform that provides for easier data input, alternative testing and additional options. Having a working Transportation Model in TransCAD provides the UCTC the ability to build additional functions into the model as the MPO area and its needs continue to grow.

This model was run for both the base year (2000) and forecast year (2030) using the appropriate population and employment data. The model results provide volume to capacity ratios (V/C) to identify congested roadways within Ulster County and where the traffic growth is expected to result in additional congestion by the year 2030 based on the forecasts. In general, a roadway with a V/C ratio of 1.0 indicates the traffic volume on that roadway equals the theoretical capacity of that road. For the purposes of this LRTP a roadway with V/C ratio between 0.8 and 1.0 is defined as “approaching congestion” and a roadway with a V/C ratio exceeding 1.0 is defined as “congested”.

## **D. Current Traffic Conditions**

The current status of the transportation system within Ulster County was assessed in detail in the 2003 Ulster County Transportation Plan. This analysis was conducted for the year 2000, which is also the base year for the Ulster County Travel Demand Model. For consistency with that plan and recognizing the base year of the regions transportation model and traffic data is for the year 2000 that year was chosen to reflect the base conditions in the LRTP. In addition to developing forecasts of travel demand for the year 2030, the Travel Demand Model was used as a tool to quantify the existing traffic conditions. The assessment was done using year 2000 traffic volumes and was done for the PM peak hour. A map of PM peak hour traffic conditions for Ulster County is shown in Figure 6: Existing 2000 V/C Ratios PM Peak Hour.

A table summarizing the congested locations identified for analysis year 2000 is shown in Table 2: Locations of Traffic Congestion on Major Roadways Year 2000 – PM Peak Hour.

Table 2: Locations of Traffic Congestion on Major Roadways Year 2000 – PM Peak Hour

Highway/Roadway	Segment	Municipality	2000 V/C
US-9W	NY-299 to CR-14	Town of Lloyd, Marlborough	0.85 to 1.18
US-9W	NY-32 to CR-24	City of Kingston, Town of Esopus	0.80 to 1.17
US-9W	CR-32 to US-209/NY-199	Town of Ulster, Saugerties	0.77 to 1.11
US-44/NY-55	US-9W to Mid-Hudson Bridge	Town of Lloyd	1.37 to 1.48
NY-299	CR-6 to CR-22	Village of New Paltz, Town of New Paltz	0.76 to 1.28
NY-28	NY-375 to I-87	Town of Hurley, Kingston, Ulster	0.75 to 1.26
Washington Avenue	I-87 to N. Front St.	City of Kingston	0.83 to 1.21

Not listed in Table 2 are several roadways within the City of Kingston that currently experience traffic congestion during the PM Peak Hour. These roadways are the major arteries within the city, which is the most densely populated and urbanized area in the county.

Figure 5: Where Ulster County Residents Work (2000 Census Data)

Figure 6: Existing 2000 V/C Ratios PM Peak Hour

**E. Forecasted Traffic Conditions**

The Ulster County Travel Demand Model was used to forecast traffic conditions for the year 2030 using the household, employment and population forecasts provided by Ulster County. The results of the model assist in identifying roadways within Ulster County that will have congested conditions (as measured by V/C ratios) in the future. To present a summary of the 2030 analysis, the results are reported by functional class of the highways throughout the County. A description of Functional Class and examples within Ulster County is presented in Table 3. The 2000 and forecasted 2030 analysis results are presented in Table 4.

Table 3: Ulster County Functional Classification Categories

NYS DOT Classification	Class Description	Examples	Typical Daily Volume
<b>Rural</b>			
1	Interstate	Interstate 87 (New York State Thruway)	32800-39800
2	Principal Arterial Other	US Routes 9W and 209, NY Route 299	2500-18000
6	Minor Arterial	NY Routes 28, 52 and 208	2500-15000
7	Major Collector	County Route 1, NY Route 32, US 44/NY 55, NY Route 212	1500-12000
8	Minor Collector	County Routes 3, 7 and 47, NY Route 28A	250-750
9	Local Road	County Routes 14, 16, 24 and 46	25-300
<b>Urban</b>			
11	Interstate	Interstate 87 (New York State Thruway)	38500
12	Principal Arterial - Expressway	NY Route 299	15000-20000
14	Principal Arterial - Other	Washington Avenue, Ulster Avenue, NY Route 32	10000-16000
16	Minor Arterial	Hurley Avenue, Lucas Avenue, US Route 9W	8000-14000
17	Collector	Dewitt Mills Road, Sawkill Road, West O'Reilly Street	500-5000
19	Local Street	Clifton Avenue, Linderman Avenue, Sottile Boulevard	50-500

Table 4: UCTC 2000, 2030 VHT/VMT and Capacity Analysis (Typical PM Peak Hour)

Link Class	VHT	VMT	2000 Average Speed	% System Over 1.0 V/C	VHT	VMT	2030 Average Speed	% System Over 1.0 V/C
1 Rural Arterial Interstate	1,219	79,119	64.9	0.0%	1,950	125,174	64.2	0.0%
2 Rural Principal Arterial Other	2,009	91,031	45.3	6.3%	3,265	128,548	39.4	14.2%
6 Rural Minor Arterial	1,368	63,035	46.1	1.0%	2,045	91,330	44.7	4.6%
7 Rural Major Collector	977	40,875	41.8	0.0%	1,673	68,873	41.2	0.0%
8 Rural Minor Collector	1,220	51,360	42.1	0.0%	1,962	80,966	41.3	0.5%
9 Rural Local	852	32,593	38.3	0.0%	1,482	56,829	38.3	0.0%
11 Urban Principal Arterial Interstate	346	22,429	64.8	0.0%	552	35,331	64.0	0.0%
12 Urban Principal Arterial Expressway	77	4,634	60.2	0.0%	134	7,903	59.0	0.0%
14 Urban Principal Arterial Other	660	22,219	33.7	8.3%	953	30,250	31.7	18.8%
16 Urban Minor Arterial	271	8,647	31.9	3.4%	487	14,178	29.1	7.7%
17 Urban Collector	225	7,964	35.4	0.0%	462	15,397	33.3	5.8%
19 Urban Local	71	2,302	32.4	0.0%	165	5,010	30.4	1.1%
20 Interchange Ramps	107	3,702	34.6	0.0%	189	6,122	32.4	5.7%
System wide	9,402	429,910	45.7	1.9%	15,319	665,911	43.5	5.7%
<ul style="list-style-type: none"> <li>• VHT=Vehicle Hours Traveled</li> <li>• VMT= Vehicle Miles Traveled</li> </ul>								

The results are presented as a comparison of vehicle-hours traveled (VHT), vehicle-miles traveled (VMT), average speeds and percentage of Functional Class operating at or over capacity for each roadway class for the years 2000 and 2030. System-wide, the Vehicle Miles Traveled (VMT) is expected to increase by 55%, and the Vehicle Hours Traveled (VHT) is expected to increase by 62% between 2000 and 2030. A map of projected PM peak hour traffic flow conditions within Ulster County for the year 2030 is shown in Figure 7: Projected 2030 V/C Ratios PM Peak Hour.

Figure 7: Projected 2030 V/C Ratios PM Peak Hour

It is significant that none of the mainline expressway systems are over capacity in the year 2030, however the New Paltz (Exit 18) interchange of the Thruway operates at V/C ratios of 1.26 (NB), and 1.17 (SB) on the toll plaza roadway between the ramps onto/off of the Thruway and NY Route 299. Also in 2030, the segment of Route 212 between Route 32 and the Thruway Exit 20 northbound on/off ramps is forecasted to operate at a V/C ratio of 1.04 in the westbound direction.

**F. Current Programmed Projects**

The Statewide Transportation Improvement Program (STIP) is a list of every project in New York State for which Federal funding is proposed and that is scheduled to begin during the designated three Federal fiscal year time frame. The STIP was last updated during the summer and fall of 2003 with formal approval occurring on December 22, 2003. The STIP is updated every two years and includes a minimum three-year listing of Federal-aid projects. It will be updated again during 2006. The currently approved STIP covers the period between October 1, 2003 and September 30, 2006.

Ulster County is located within Region 8 of the NYSDOT. A STIP Project Listing has been developed for each NYSDOT Region within the State of New York. The listing of the programmed projects for Ulster County is included in the list of projects for Region 8. The programmed NYSDOT and federally aided locally sponsored projects by type for Ulster County is presented in Table 5. The majority of the current and programmed projects within Ulster County, and associated funding, are for maintenance and repair projects such as bridge replacements, bridge rehabilitation projects, and roadway repaving work.

Table 5: Summary of NYSDOT and Federally Aided Locally Sponsored Projects 2003-2006 Within Ulster County

Project Type	Number of Projects	Budget Amounts in Millions, \$
Bridge Reconstruction And Replacement	9	15.9
Bridge Rehabilitation	16	13.7
Pavement Rehabilitation And Reconstruction	9	22.0
Mobility And Safety	8	2.80
Transit	11	11.8
<b>Totals:</b>	<b>53</b>	<b>66.2</b>

## V. 2030 LONG-RANGE TRANSPORTATION PLAN

### A. Overview of Corridor-Based Plan

Corridor-oriented planning considers the transportation systems, land uses, and travel markets between urbanized areas, communities, and other destinations throughout Ulster County. Corridors identified represent dominant directional movements of persons and goods, as well as movement in localized travel markets. Delineations of the corridors as identified below are based on the analysis of existing and emerging travel and land use patterns within Ulster County and are tied to the various trip origins and destinations both within and outside the county. The corridors were also identified based on local stakeholder meetings and public outreach workshops. A defining feature of each corridor is one or more arterial roadways. Building the Long-Range Transportation Plan around these corridors facilitates a regional and local understanding of transportation conditions and priorities within the county and will assist decision makers with accessing the transportation needs of the region.

Recommendations for strategies, studies and improvements for each corridor, and where appropriate countywide, were made based on a review of:

- The findings of the 2003 Ulster County Transportation Plan
- The results of the Travel Demand Forecasting for the year 2030 and
- Feedback received as part of the Public Outreach conducted

The key corridors that have been identified and will be the focus of the Long-Range Transportation Plan are defined below:

#### 1. US-9W – Hudson River

Hudson River Corridor is within eastern Ulster County and parallels the Hudson River from the northern to southern boundaries of Ulster County. The corridor is essentially the adjoining area surrounding the US-9W corridor throughout the county. The City of Kingston and the Village of Saugerties are located within the corridor.

#### 2. I-87/NY-32/NY-208 – Wallkill Valley

Wallkill Valley Corridor is within east-central Ulster County and parallels the Hudson River from the northern to southern boundaries of Ulster County. The majority of the urbanized areas within Ulster County are located along the corridor, which includes the City of Kingston and the Villages of New Paltz and Saugerties.

### **3. US-209 - Rondout-Esopus**

Rondout - Esopus Valley is a northeast to southwest corridor, which parallels the Rondout Creek and the Esopus Valley. The corridor passes through primarily residential and agricultural areas. However, the corridor is the major link between the City of Kingston and the Village of Ellenville.

### **4. NY-28 - Catskills**

Catskills Corridor is an east-to-west corridor located in northern Ulster County. The corridor stretches from the City of Kingston to the Delaware County Line. The major roadway within the corridor is NY-28. NY-28 begins at the intersection of I-87, I-587, and Washington Avenue, otherwise known as the Kingston Circle, located in the Town of Ulster. NY-28 is a local, regional, and seasonal roadway carrying traffic for all these purposes.

### **5. US-44/NY-55/NY-299 - Shawangunk Mountain**

The Shawangunk Mountain Corridor is the east-to-west corridor located within southern Ulster County. The corridor stretches from the Sullivan County Line, at the western end of Ulster County, to the Dutchess County Line, at the eastern end. The Shawangunk Mountain Corridor contains several high growth areas and also includes the Villages of Ellenville and New Paltz. The corridor is carrying local, seasonal, and regional traffic to areas within and beyond the county.

Travel movements, major transportation issues, and strategies and recommendations for actions are presented for each of these corridors.

## **B. County Wide Transportation Concerns**

A review of the region as a whole has identified some reoccurring themes that apply to more than one of the key corridors. Each corridor, though unique, is composed of the similar elements, such as transit services, park and ride facilities, the need for access management, and trails and bike paths. It is these elements that unify each of the corridors and allow for connectivity. Enhancing these elements will increase the connectivity and unity of the region in regards to transportation. The following is a summary of countywide transportation issues and recommendations:

### **1. Highway and Bridge**

Ulster County has an extensive network of highways and bridges that serve the transportation needs of residents businesses and visitors. These facilities are owned and maintained by a variety of agencies including the New York State Department of

Transportation, The New York State Thruway Authority, Ulster County, and local municipalities. Providing the resources needed to maintain these existing facilities is an important part of any LRTP.

## **2. Transit**

Existing transit operations consist of public and privately owned bus, coach, van, and charters. Services provided range from set schedule operations to an on-call or as needed service. The existing transit system adequately services the region as whole. The current transit system serves the major traffic generators, such as schools, towns, and businesses, but an awareness of the system is required to peak interest in the transit system as an alternative mode of transportation. A decrease in headways would be warranted to serve the needs of each corridor and the region as whole with the expected growth.

Ulster County is currently in the process of addressing countywide transit needs through the preparation of The Ulster County Transit Plan. The findings of this Transit Plan, when complete, will be incorporated into future updates of this Long Range Transportation Plan. In addition to studying service extensions for several corridors, a transit project of countywide significance in the plan is providing a new Multi-modal transportation center in Kingston.

## **3. Park and Ride**

Ulster County is fortunate to hold a large county-based workforce, meaning a significant percentage of the total employed population (70%) lives in the County. However, those living in Ulster County that do travel to outside of the County for work have the opportunity to use several existing official and non-official park and ride locations throughout the county. Noticeable usage of the park and rides are at the intersection of Routes 9W and 299, the Mid-Hudson Bridge, and the I-87 Exit 18 and 19 interchanges. Unofficial Park and Ride's are located in areas with wide flat shoulders or in underutilized retail parking areas. An area where this is visible is at the Kingston-Rhinecliff Bridge crossing.

Corridors both developed and undeveloped show a need for official Park and Ride's; the I-87/NY-32/NY-208, US 209, NY-28 corridors are prime examples of this. Having official designated park and ride locations in these corridors will promote a unified transportation system, will encourage additional usage of car/van pools, provide safer facilities, and may warrant increased transit service.

#### **4. Access Management**

As a whole, the Ulster County region is prime for the application of access management policies. The Federal Highway Administration defines Access management as “the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety capacity and speed. It attempts to balance the need to provide good mobility for through traffic with the requirements for reasonable access to adjacent land uses”. The 2003 Ulster County Transportation Plan included a primer on Access Management Guidelines and their application within Ulster County. Adopting and promoting these guidelines throughout the county will help to preserve the capacity of the arterial highways that serve existing and developing commercial areas.

#### **5. Trails and Bike Paths**

There is significant support for the continuing expansion of trails and bike paths within Ulster County. In addition to several ongoing trail projects the LRTP includes the establishment of a bicycle and pedestrian policy group, initiating an education and awareness to promote safety and a study of countywide bicycle and pedestrian needs and projects. It is also suggested that any Bicycle groups formed within Ulster County coordinate with the Hudson River Valley Greenway. A related initiative that may allow additional bike paths is the policy of incorporating shoulder improvements on highway maintenance projects within the County.

#### **6. Freight**

As the population and employment in the County continues to grow the movement of freight that moves within and through the region, and the potential impacts of that freight movement will be a greater concern. Already the impact of rail freight and the resulting delays at grade crossings are a concern. To quantify the impacts of movement of freight and to evaluate potential solutions several countywide initiatives are included in the plan. These include a study of truck movement and potential truck routes, a study of existing at-grade rail crossings to improve safety and to address emergency response concerns and the support for and participation in a potential study to add a second track to the existing CSX rail line that extends through the county.

#### **7. Capacity**

The TransCAD model developed for this plan, and the T-model developed for the 2003 plan, shows areas of the transportation system that are forecasted to operate over capacity. Intersections in these areas, as well as those along critical corridors, should be studied based on level of service and accident data, with the goal to effectuate improvements in these congested corridors.

## 8. Connectivity

Principal arterials and collectors that will see significant increases in traffic during the Plan's horizon bisect many of Ulster County's central places. One means to conserve capacity, while at the same time improve the vitality of the hamlets, is to ensure that development in and around these areas takes place in a manner that strengthens the local street network, allowing local trips to be completed with minimal use of the principal highway network. To accomplish this, the Plan supports the concepts of interconnection as well as development at depth, rather than along corridors.

## 9. Pedestrian Facilities

Ulster County's villages and hamlets continue to be activity centers with robust retail and service oriented businesses. Yet, many of these areas lack appropriate pedestrian amenities. The Plan recommends the establishment of pedestrian zones in these areas and investment in pedestrian facilities to support economic development and safety. Combined with support facilities for transit and bicycles, pedestrian facilities will make the transportation system truly multi-modal. The Plan recommends establishing a Bicycle/Pedestrian subcommittee of UCTC.

### C. US-9W - Hudson River Corridor

#### 1. Corridor description

The Hudson River Corridor parallels US-9W, and the Hudson River throughout the length of Ulster County. The majority of the traffic along US-9W is localized traffic, as well as regional traffic accessing the Kingston-Rhinecliff Bridge and the Mid-Hudson Bridge. A map of the US-9W - Hudson River Corridor is shown in Figure 8: US-9W Hudson River Corridor.

UCAT offers service along US-9W, between the Village of Saugerties and the Hamlet of Marlboro. Two privately owned transit agencies, Laidlaw and Trialways, also operate bus service along the US-9W corridor, with the exception of north of the Village of Saugerties. Though there is much commuter traffic spread throughout the corridor there are few official park and ride lots in existence. There is an official park and ride lot near the intersection of US-9W and NY-299, in the Town of Lloyd.

A map of bike routes, pedestrian zones, and other bike routes/trails within the Hudson River Corridor is shown in Figure 10: US-9W Hudson River Corridor Bike Routes, Pedestrian Zones and Rail Trails. There is no bicycle route signage along US-9W. However, shoulder improvements have been implemented along US-9W, throughout the county. Shoulder improvements also exist on CR-37,

which parallels US-9W within the Town of Ulster. There is a designated pedestrian zone at the community of Highland, with additional pedestrian zones proposed for the communities of Milton and Marlboro, within the Town of Marlborough. Designated pedestrian zones are also proposed throughout the City of Kingston and the Village of Saugerties. A map of the existing transit services within the corridor is shown in Figure 9: US-9W Hudson River Corridor Transit Systems.

Figure 8: US-9W Hudson River Corridor

Figure 9: US-9W Hudson River Corridor Transit Systems

Figure 10: US-9W Hudson River Corridor Bike Routes, Pedestrian Zones and Rail Trails

## **2. Major Mobility & Accessibility Issues**

There are several roadways and locations, within the Hudson River Corridor, where traffic congestion currently exists. A map of projected 2030 PM Peak Hour travel conditions, within the Hudson River Corridor, is shown in Figure 11: US-9W Hudson River Corridor Projected 2030 V/C Ratios PM Peak Hour.

There are two major bridge links to Dutchess County within this corridor, the Mid-Hudson Bridge and the Kingston-Rhinecliff Bridge. Both of these major access points to Ulster County experience significant recurring congestion. There is also congestion on US-9W, to the north of the interchange with US-209/NY-199. There is commercial development along this stretch of US-9W, and access issues have been discussed at several local stakeholder meetings. Recurring congestion occurs along US-9W, to the south of the City of Kingston. US-9W will experience traffic congestion, during the PM peak hour, throughout the entire corridor, from the Town of Saugerties to the Orange County Line.

One issue that has come up repeatedly at local stakeholder meetings, as well as public workshops, is the concern over at-grade railroad crossings, particularly crossings along the CSX corridor. Concerns include safety at the at-grade crossings, emergency response conflicts, and improper or lack of signage. The CSX corridor passes through urbanized areas of this Corridor, including the City of Kingston, the Village of Saugerties and the Towns of Lloyd and Marlborough. Service has increased along the CSX corridor thus increasing the importance of strategies to evaluate the safety of the CSX corridor.

Figure 11: US-9W Hudson River Corridor Projected 2030 V/C Ratios PM Peak Hour

### 3. Corridor Strategies/Projects

The following strategies and projects are recommended to address the identified issues in the Hudson River Corridor.

#### Highway/Roadway

- Initiate transportation deficiency and access management study of US-9W corridor
- Initiate corridor studies for Routes 199, 32 and 299
- Initiate concept development study of Saugerties roadway improvement alternatives
- Develop a traffic circulation plan for the City of Kingston
- Participate in any studies of the existing Hudson River Crossings
- Incorporate shoulder improvements on Highway rehabilitation projects
- Implement capacity improvements currently under study for the area around the Hudson Valley Mall

#### ITS/TDM/TSM

- New Park and Ride facility near the US-9W/US-209/NY-199 Interchange, in Town of Ulster
- TDM outreach efforts to employers within commercial districts along US-9W, in Town of Ulster
- ITS investments related to traffic detection and control, traveler information, and signal communications along US-9W, as well as NY-32, north of the City of Kingston
- Apply early initiative access management techniques at a local level along US-9W within designated commercial areas, such as Hudson Valley Mall

### Bicycle/Pedestrian

- Create pedestrian zone along US-9W within Town of Ulster at commercial districts and in Saugerties, Port Ewen, Highland and Marlboro
- Provide bicycle accommodations along US-9W, between City of Kingston and Village of Saugerties
- Provide Link between Kingston and Saugerties

### Freight

- Encourage and participate in a study of the CSX Corridor.
- REPLACE BULLETED ITEM ABOVE WITH THE FOLLOWING: Support the double tracking of the CSX West Shore Railroad Corridor to increase freight movement capacity through Ulster County only if safety, security, mobility, and quality of life issues for area residents and travelers are also addressed.

## **D. I-87/NY-32/NY-208 - Wallkill Valley Corridor**

### **1. Corridor description**

A map of the I-87/NY-32/NY-208, or Wallkill Valley Corridor is shown in Figure 12: I-87/NY-32/NY-208 Wallkill Valley Corridor. The Wallkill Valley Corridor follows the Wallkill River and Esopus Creek land forms. Major roads within the corridor include: NYS Routes 208 and 299 in the south and NYS Route 9W in the north. The corridor also contains the entire length of Interstate I-87 in the county as well as NYS Route 32.

A map of the transit service within the corridor is shown in Figure 13: I-87/NY-32/NY-208 Wallkill Valley Corridor Transit Systems. Ulster County Area Transit (UCAT), formerly known as Ulster County Rural Transportation (UCRT), provides transit service throughout the Wallkill Valley Corridor. Off-route services and ADA paratransit transportation is available upon request. Request must be made at least 24 hours in advance of service and telephone confirmation is required on the day of service. CitiBus, which is the City of Kingston Bus Service, offers transit service throughout the City of Kingston and across the Roundout Creek to Port Ewen. There are several privately operated bus services within the Wallkill Valley Corridor, with destinations to Kingston, Newburgh and Poughkeepsie.

Figure 12: I-87/NY-32/NY-208 Wallkill Valley Corridor

Figure 13: I-87/NY-32/NY-208 Wallkill Valley Corridor Transit Systems

There are several transit and park-n-ride facilities available within the Wallkill Valley Corridor. One facility is located at Interchange 18 of I-87, off NY-299. The second facility is located on Washington Avenue in the City of Kingston, near Exit 19 of I-87. There are also unofficial park & ride facilities located on NY-199, near the Kingston-Rhinecliff Bridge, and in the Village of Saugerties. A map of bike routes, pedestrian zones, and other bike routes/trails within the Wallkill Valley Corridor is shown in Figure 14: I-87/NY-32/NY-208 Wallkill Valley Corridor Bike Routes, Pedestrian Zones and Rail Trails. The Wallkill Valley Rail-Trail traverses through the Wallkill Valley Corridor, paralleling NY-32 and NY-208 within the Towns of New Paltz and Gardiner. The majority of the rail-trail is complete with a future planned extension of the trail from the Town of Rosendale to the City of Kingston.

The Hudson Valley Trailway parallels NY-299 within the Towns of New Paltz and Lloyd. An extension of the Hudson Valley Trailway is currently proposed up to Interchange 18 of the New York State Thruway (I-87), along NY-299. Opportunities also exist to carry the Trailway across the Hudson River on the former railroad bridge.

## **2. Major Mobility & Accessibility Issues**

A map of projected year 2030 PM Peak Hour travel conditions, within the Wallkill Valley Corridor, is shown in Figure 15: I-87/NY-32/NY-208 Wallkill Valley Corridor Projected Year 2030 V/C Ratios PM Peak Hour. There are several congested roadways within the Wallkill Valley Corridor. The majority of the congested areas are located in and immediately surrounding the City of Kingston including Washington Avenue, Broadway, and Delaware Avenue. Congested conditions currently exist on US-9W, to the north of the intersection of US-209/NY-199 and along NY-28, which is the primary arterial from the west into the City of Kingston. Between the Village of New Paltz and I-87, consistent roadway congestion is experienced along NY-299 and the intersection of NY-299 with NY-32/NY-208.

Roadways including NY-32 and NY-208 are expected to experience congestion by 2030 due to projected population growth in areas such as Gardiner and Shawangunk. North of the Village of Saugerties, NY-32 is projected to experience congestion by 2030 as communities to the north of the village experience population growth. The ramps that connect the NYS Thruway/I-87 to the Arterial road network are also expected to be congested by 2030. Although the roadway network within the Wallkill Valley Corridor provides a considerable amount of bicycle accommodations along the major roadways, emphasis is needed to improve bicycle accommodations on the county and secondary roads. The Wallkill Valley Rail-Trail passes through the corridor with additional segments under construction, which would complete the trail from Kingston to Wallkill. Transit service is limited south of New Paltz and the need for intercommunity transit is likely to grow by 2030.

Figure 14: I-87/NY-32/NY-208 Wallkill Valley Corridor Bike Routes, Pedestrian Zones and Rail Trails

Figure 15: I-87/NY-32/NY-208 Wallkill Valley Corridor Projected Year 2030 V/C Ratios PM Peak Hour

### 3. Corridor Strategies/Projects

The following strategies and projects are recommended to address the identified issues in the Wallkill Valley Corridor:

#### Highway/Roadway

- Implement the recommendations of the ongoing New Paltz Traffic Study
- Develop transportation circulation plan for the City of Kingston
- Study Interchange modifications/improvements on NY-199 at NY-32
- Encourage additional capital investment by the NYS Thruway Authority to relieve congestion at interchanges as well as study congestion on the main line now associated with recreational traffic.
- Support designation on scenic byways in the corridor.

#### ITS/TDM/TSM

- Develop a new Park and Ride facility near I-87 interchange 20 in Town of Saugerties
- Initiate TDM outreach efforts to employers in City of Kingston, Village of New Paltz, and commercial districts along US-209 and US-9W, in Town of Ulster
- Provide additional ITS investments related to traffic detection and control, traveler information, and signal communications along Route 32 and I-87 and the City of Kingston
- Initiate an emergency traffic signal preemption program within the City of Kingston and the Villages of New Paltz and Saugerties as a response to the needs expressed at the stakeholders meetings by emergency service providers.
- Expand Park and Ride facilities at I-87 interchanges 17 & 18 in Kingston and New Paltz.

### Bicycle/Pedestrian

- Develop pedestrian mobility and accessibility studies and implement sidewalk inventory and repair within Kingston, New Paltz and Saugerties
- Complete Wallkill Bike-Rail Trail extension to the City of Kingston
- Complete rail trail interconnection between Shawangunk and Gardiner using local streets to bridge gaps.
- Implement recommendations of proposed bike/pedestrian task force as key development elements in corridor

### .Freight

- Study the feasibility of constructing grade-separated CSX rail crossing facilities in the City of Kingston to reduce delays, enhance pedestrian and vehicle mobility, increase safety and reduce noise.

## **E. US-209 - Rondout-Esopus Valley**

### **1. Corridor description**

A map of the Rondout-Esopus Valley Corridor is shown in Figure 16: US-209 Rondout Esopus Corridor. The Rondout-Esopus Valley US-209 Corridor is the primary link between the City of Kingston and the Village of Ellenville. At the northern end of the corridor, US-209 intersects with NY-28, which is the primary roadway into the Catskills region. The intersection also connects the Kingston Circle, with access to I-87, I-587, and Washington Avenue, a commercial thoroughfare, which terminates in the City of Kingston. US-209 terminates at NY-199, which is connected to the Kingston-Rhinecliff Bridge. *US-209 / NY-28 Interchange*

A map of transit service within the Rondout-Esopus Valley Corridor is shown in Figure 17: US-209 Rondout Esopus Corridor Transit Systems. UCAT provides public transit service along US-209, between Kingston and Ellenville. Service is also provided on some of the tributary roads within the corridor, such as NY-213, CR-1, CR-26, and CR-28, the main roadway within the community of Hurley. Lester, a private bus service, operates along the entire US-209 corridor. There is a multi-modal center planned within the Village of Ellenville, which will assist in increasing transit service within the corridor.

A map of bike routes, pedestrian zones, and other bike routes/trails within the Rondout-Esopus Valley Corridor is shown in Figure 18: US-209 Rondout Esopus Corridor Bike Routes, Pedestrian Zones and Rail Trails. There is a bike path that parallels the Rondout

Creek throughout much of the corridor following the abandoned O&W Railroad ROW. Once this bike path is complete, the path will connect the City of Kingston to the Village of Ellenville. There are shoulder improvements along US-209 for an unsigned bicycle route. There are also shoulder improvements along CR-1, which parallels US-209. Pedestrian zones are recommended for several municipalities and communities along the corridor, including the Village of Ellenville and the Hamlets of Napanoch, Wawarsing, Kerhonkson, Accord, Stone Ridge, and Hurley.

Figure 16: US-209 Rondout Esopus Corridor

Figure 17: US-209 Rondout Esopus Corridor Transit Systems

Figure 18: US-209 Rondout Esopus Corridor Bike Routes, Pedestrian Zones and Rail Trails

## **2. Major Mobility and Accessibility Issues**

Analysis of the existing traffic conditions in this corridor indicates there is no significant congestion within the corridor. However, mobility and accessibility issues within the corridor have been discussed at local stakeholder and public meetings as well as the need for access management and safety improvements. Another mobility concern is the lack of available alternate routes to be used as detours in the event of flooding or other event.

A map of projected 2030 PM Peak Hour travel conditions, within the Rondout-Esopus Corridor, is shown in Figure 19: US-209 Rondout Esopus Corridor Projected Year 2030 V/C Ratios PM Peak Hour. US-209 expected to experience traffic congestion, during the PM peak hour, along several segments throughout the corridor by 2030 due to a large increase in households and employment within the Towns of Marbletown and Rochester. CR-1, which parallels US-209, is expected to experience an increase in traffic congestion as well.

Figure 19: US-209 Rondout Esopus Corridor Projected Year 2030 V/C Ratios PM Peak Hour

### 3. Corridor Strategies/Projects

The following strategies and projects are recommended to address the identified issues in the US-209 – Rondout-Esopus Valley Corridor:

#### Roadway Improvements/Expansion

- Initiate transportation deficiency and access management study of US-209 corridor, between the City of Kingston and the Village of Ellenville
- Initiate alternative route analysis in the event of closure of US-209
- Complete transportation improvements in Stone Ridge associated with NYS Route 209
- Support designation of scenic byway within the corridor

#### ITS/TDM/TSM

- ITS investments related to traffic detection and control, traveler information, and signal communications along US-209
- Apply access management techniques along US-209 within designated commercial areas, such as hamlets
- Provide signage and advertisement of the existing Park and Ride facility at UCCC, in Marbletown
- Study potential Park and Ride in Stone Ridge

#### Bicycle/Pedestrian

- Include a bicycle and pedestrian inventory and analysis as part of the US-209 corridor study
- Complete the O&W Rail Trail system from Ellenville to Kingston. Provide appropriate interconnections and trailhead parking between the rail trail and existing hamlets and new developments.

## **F. NY-28 - Catskills Corridor**

### **1. Corridor description**

A map of the Catskills Corridor is shown in Figure 20: NY-28 Catskills Corridor. This corridor extends from the City of Kingston and The Thruway at Interchange 19 to the western - rural and recreational areas of the County. The corridor is heavily impacted by recreational traffic associated with destinations to the west. The western portion of the corridor is projected to see little additional housing development due to the presence of New York City Water Supply Lands. The hospitality industry in the corridor is projected to add employment and residential components.

A map of available transit service within the Catskills Corridor is shown in Figure 21: NY-28 Catskills Corridor Transit Systems. There are currently no official Park and Ride lots within the corridor. However, a Park and Ride facility has been proposed at the intersection of NY-28 and NY-375, in the Town of Hurley. The Ulster and Delaware Railroad parallels NY-28 throughout the entire length of the Catskills Corridor. The rail line is active and utilized by the Catskill Mountain Railroad as a tourist railroad in particular stretches of the corridor such as a stretch between Phoenicia and Shokan. The inactive portion of rail line terminates within the City of Kingston and reconnects with the active line in Delaware County to the west.

A map of bike routes, pedestrian zones, and other bike routes/trails within the Catskills Corridor is shown in Figure 22: NY-28 Catskills Corridor Bike Routes, Pedestrian Zones and Rail Trails. There are several signed bicycle routes within the Catskills Corridor. Signed bicycle routes within the corridor include NY-28A, NY-212 and NY-375. Shoulders have been provided for bicycle accommodations along NY-28 and NY-212, east of the Hamlet of Woodstock. There are several pedestrian zones recommended within the Catskills Corridor including the Hamlets of Woodstock, Phoenicia, and Pine Hill.

Figure 20: NY-28 Catskills Corridor

Figure 21: NY-28 Catskills Corridor Transit Systems

Figure 22: NY-28 Catskills Corridor Bike Routes, Pedestrian Zones and Rail Trails

## 2. Major Mobility and Accessibility Issues

A map of projected 2030 PM Peak Hour travel conditions, within the Catskills Corridor, is shown in Figure 23: NY-28 Catskills Corridor Projected Year 2030 V/C Ratios PM Peak Hour. Analysis of existing traffic conditions indicates there is current congestion in the corridor, primarily along NY-28. NY-28 serves as a main commuting route and also experiences substantial seasonal traffic as it provides access to ski and hiking areas. Additional congestion is expected by 2030 due to a growth in households and therefore commuting traffic within the corridor.

Pedestrian and bicycling safety has been a common theme from discussions with town officials from the Town of Woodstock. Woodstock is a residential community as well as a tourist destination. The Hamlets of Woodstock and Phoenicia are commercial districts where walking is a common mode of transportation and has been designated as a future pedestrian zone. Improved pedestrian and bicycling accommodations will improve travel safety for all modes of transportation.

Figure 23: NY-28 Catskills Corridor Projected Year 2030 V/C Ratios PM Peak Hour

### 3. Corridor Strategies/Projects

The following strategies and projects are recommended to address the identified issues in the NY-28 – Catskills Corridor:

#### Roadway Improvements/Expansion

- Initiate transportation deficiency and access management study of NY-28 corridor
- Access Management along Routes NY- 28 and NY-212

#### ITS/TDM/TSM

- Implement potential new Park and Ride facility at the intersection of NY-28 and NY-375, in Town of Hurley
- TDM outreach efforts to employers within commercial districts along NY-28, throughout the corridor
- ITS investments related to traffic detection and control, traveler information, and signal communications along NY-28, NY-28A, and NY-212
- Study potential for seasonal recreational shuttle bus service along NY 28 from Kingston to Belleayre Mountain

#### Bicycle/Pedestrian

- Initiate pedestrian accommodation and deficiency study inventory for Hamlet of Woodstock; Implement strategies developed from study
- Implement the recommendations of the Ulster and Delaware Railroad Corridor Rail Trail Study

### G. US-44/NY-55/NY-299 – Shawangunk Mountain Corridor

#### 1. Corridor description

A map of the Shawangunk Mountain Corridor is shown in Figure 24: US-44/NY-55/NY-299 Ellenville/New Paltz Corridor. US-44/NY-55 runs the entire length of the corridor, from the Sullivan County Line to the Mid-Hudson Bridge. The roadway passes

*Edwards and Kelcey with Fitzgerald & Halliday*

*September, 2005*

through residential areas of southern Ulster County as well as Minnewaska State Park. NY52 is another significant roadway in the corridor.

A map of the transit service within the Shawangunk Corridor is shown in Figure 25: US-44/NY-55/NY-299 Ellenville/New Paltz Corridor Transit Systems. There is limited transit service within the Shawangunk Corridor. UCAT operates public transit service along NY-299, between the Village of New Paltz and US-9W, as well as along county roads in the Towns of Marlborough and Plattekill. This is the only east to west transit service available within the corridor. There is an official Park and Ride facility near the interchange of NY-299 and I-87.

A map of bike routes, pedestrian zones, and other bike routes/trails within the Shawangunk Corridor is shown in Figure 26: US-44/NY-55/NY-299 Ellenville/New Paltz Corridor Bike Routes, Pedestrian Zones and Rail Trails. The only east-to-west signed bike route in the corridor is CR-10, in the Towns of Plattekill and Marlborough. The Hudson Valley Trailway when completed will parallel NY-299 between the Village of New Paltz and the Town of Lloyd. There is an existing pedestrian zone within the Hamlet of Clintondale and more pedestrian zones proposed at the Villages of New Paltz and Ellenville, as well as the Hamlets of Napanoch, Kerhonkson, Gardiner, and Modena.

## **2. Major Mobility and Accessibility Issues**

A map of projected 2030 PM Peak Hour travel conditions, within the Shawangunk Mountain Corridor, is shown in Figure 27: US-44/NY-55/NY-299 Ellenville/New Paltz Corridor Projected Year 2030 V/C Ratios PM Peak Hour. There is minimal existing traffic congestion in the Shawangunk Mountain Corridor, with the exception of NY-299 within the Town and Village of New Paltz and 9W north and south of the bridge. Congestion frequently occurs along NY-299, between NY-32 and I-87, as a result of the urbanized area of New Paltz and local and regional traffic accessing I-87 from NY-299. Additional traffic congestion is forecasted to occur within the corridor by 2030 along US-44/NY-55, NY-52, NY-208 and NY-300. The Shawangunk Corridor also experiences significant seasonal traffic due to the presence of the Minnewaska State Park and several resorts.

Although the roadway network within the Shawangunk Mountain Corridor provides a considerable amount of bicycle accommodations along the major roadways, emphasis is needed to improve bicycle accommodations on the county and secondary roads. There is a lack of shoulders on the majority of the county roads, making bicycle travel extremely difficult and dangerous. There are few bicycle and pedestrian accommodations along NY-52, which passes through several residential and recreational areas.

Figure 24: US-44/NY-55/NY-299 Shawangunk Mountain Corridor

Figure 25: US-44/NY-55/NY-299 Shawangunk Mountain Corridor Transit Systems

Figure 26: US-44/NY-55/NY-299 Shawangunk Mountain Corridor Bike Routes, Pedestrian Zones and Rail Trails

Figure 27: US-44/NY-55/NY-299 Shawangunk Mountain Corridor Projected Year 2030 V/C Ratios PM Peak Hour

### 3. Corridor Strategies/Projects

The following strategies and projects are recommended to address the identified issues in the NY-28 – Catskills Corridor:

#### Roadway Improvements/Expansion

- Initiate transportation deficiency study of NY-299 corridor
- Support designation of scenic byway in the corridor
- Apply Access Management To Commercial Areas
- Initiate accident data analysis on Route 44/55 in the Shawangunks

#### ITS/TDM/TSM

- TDM outreach efforts to employers within commercial districts within the Village of New Paltz
- ITS investments related to traffic detection and control, traveler information, and signal communications along the following roadways:
  1. NY-299
  2. US-44/NY-55, east of NY-208
  3. NY-52
- Apply access management techniques along NY-28, US-44/NY-55, and NY-52 within designated commercial areas

#### Bicycle/Pedestrian

- Initiate bicycle and pedestrian accommodations inventory and deficiency assessment for 44/55 NY-52 corridor

## H. Summary of Recommendations 2030 Long Range Transportation Plan

### 1. County-Wide Recommendations

The following is a summary of the recommendations countywide and by corridor with an assessment of the goals will be addressed. The Countywide recommendations are presented in Table 6 and the specific corridor recommendations are presented in Table 7.

Table 6: Transportation Issues and Recommendations Summary – County Wide

Key Issues	Improvement Strategies	Goals Achieved						
		Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity
Highway/Roadway	County Safety Improvements	•	•	•		•	•	•
Highway/Roadway	Maintain State System (State of Good Repair)	•	•	•	•	•		
Highway/Roadway	Incorporate Shoulder Improvements	•	•	•				
Highway/Roadway	Develop Access Management Strategies in County		•	•	•	•		
Highway/Roadway	Maintain Local System	•	•	•	•	•		
Highway/Roadway	Develop Management Systems, Pavement & Safety	•	•	•	•	•		•
Transit	New Park And Ride Facilities (Various Locations)		•		•	•		•
Transit	Implement Transit Study Recommendations	•	•		•	•	•	•
Transit	New Kingston Multi-Modal Center	•	•		•	•	•	•
Transit	Maintain Existing System	•	•		•	•	•	•
Transit	Examine Service Extensions County Wide		•		•	•	•	•
Land Use /Zoning	Encourage Housing In Community Centers		•		•	•	•	•
Land Use /Zoning	Encourage connectivity as development occurs		•	•	•	•	•	
Land Use /Zoning	Encourage commercial development at depth		•		•	•	•	
Land Use /Zoning	Encourage Transit oriented development	•	•		•	•	•	•
Land Use /Zoning	Encourage Increased Density In Urban Centers		•		•	•	•	•
Bike / Pedestrian	Establish Bike /Pedestrian Policy Group	•	•	•	•	•	•	•
Bike / Pedestrian	Incorporate Shoulder Impvts On County d Projects	•	•	•			•	
Bike / Pedestrian	Education And Awareness Program		•	•	•	•	•	•
Bike / Pedestrian	County Wide Bike / Pedestrian Needs Study	•	•	•	•	•	•	•
Freight	Encourage Double Track Study	•	•	•	•	•	•	•
Freight	Initiate County Wide Truck Study	•	•	•		•	•	
Freight	At Grade Crossing Safety Study	•	•	•		•	•	
Freight	Emergency Response s For At Grade Crossings			•			•	

**2. Corridor Recommendations**

A summary of the transportation issues and recommendations, or strategies, per corridor, is shown in Table 7: Summary of Corridor Recommendations. The table identifies the LRTP Goals, which each improvement strategy achieves.

Table 7: Summary of Corridor Recommendations

Corridor Name	Key Issues	Improvement Strategies	Goals Achieved							
			Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity	
US 9W-Hudson River	Highway/Roadway	Develop Saugerties Concept		•	•	•	•	•		
US 9W-Hudson River	Highway/Roadway	Access Management - 9W Commercial Area		•	•	•	•	•		
US 9W-Hudson River	Highway/Roadway	Develop Traffic Circulation Plan For City of Kingston		•	•	•	•	•		
US 9W-Hudson River	Highway/Roadway	Implement Hudson Valley Mall Capacity Improvements		•	•		•			
US 9W-Hudson River	Highway/Roadway	Participate in Hudson River Crossing Study	•	•	•		•			•
US 9W-Hudson River	Highway/Roadway	Initiate Corridor Studies 9W, 199, 32 and 299		•	•	•	•	•		
US 9W-Hudson River	ITS/TDM/TSM	Develop Park And Ride Facility At 9W/199		•		•				•
US 9W-Hudson River	ITS/TDM/TSM	New Park and Ride in Ulster	•	•		•	•	•		•
US 9W-Hudson River	ITS/TDM/TSM	9W/32 Traveler Information and Signal Improvements		•	•	•	•			
US 9W-Hudson River	ITS/TDM/TSM	TDM Outreach along 9W		•		•				
US 9W-Hudson River	Bicycle / Pedestrian	Create Pedestrian Zones In Town of Ulster		•	•	•	•	•		•
US 9W-Hudson River	Bicycle / Pedestrian	Provide Bike Link Between Kingston And Saugerties		•	•	•	•	•		•
US 9W-Hudson River	Bicycle / Pedestrian	Incorporate Shoulder Improvements On County Roads	•	•	•				•	
US 9W-Hudson River	Freight	Initiate Study of CSX Corridor (Crossings, Safety, Separation)	•	•	•	•	•	•		
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Traffic Signal Improvements: Kingston, New Paltz, Saugerties		•	•	•	•	•		
I-87/NY-32/NY-208-Wallkill Valley	Highway/Roadway	Implement Recommendations of New Paltz Study		•	•	•	•	•		

Corridor Name	Key Issues	Improvement Strategies	Goals Achieved						
			Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity
I-87/NY-32/NY-208-Wallkill Valley	Highway/Roadway	Develop Transportation Plan for the City of Kingston		•	•	•	•		•
I-87/NY-32/NY-208-Wallkill Valley	Highway/Roadway	Study Interchange Improvements At 199 and 32		•	•				
I-87/NY-32/NY-208-Wallkill Valley	Highway/Roadway	Encourage NYS Thruway capital investment to relieve congestion at interchanges and on mainline to address recreational traffic		•	•		•		
I-87/NY-32/NY-208-Wallkill Valley	Highway/Roadway	Support designation of scenic byways in the corridor		•		•		•	
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Develop Park and Ride near I-87 Interchange 20		•		•	•		•
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Travel Demand Management In Kingston, New Paltz etc.		•		•		•	
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Traveler Information along I-87 and NY 32, Kingston		•	•		•		
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Emergency Signal preemption, Kingston, New Paltz, Saugerties		•	•			•	•
I-87/NY-32/NY-208-Wallkill Valley	ITS/TDM/TSM	Expand Park and Ride near I-87 interchanges 17 & 18		•		•			•
I-87/NY-32/NY-208-Wallkill Valley	Bicycle / Pedestrian	Sidewalk Inventory / Replacement Projects: Kingston, New Paltz, Saugerties	•	•	•	•		•	•
I-87/NY-32/NY-208-Wallkill Valley	Bicycle / Pedestrian	Implement recommendations of proposed bike/ped task force	•	•	•			•	
I-87/NY-32/NY-208-Wallkill Valley	Bicycle / Pedestrian	Complete Wallkill Bike-Rail Extension		•		•		•	•

Corridor Name	Key Issues	Improvement Strategies	Goals Achieved						
			Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity
I-87/NY-32/NY-208-Wallkill Valley	Bicycle / Pedestrian	Provide Link Between Gardiner and Shawangunk		•		•		•	•
I-87/NY-32/NY-208-Wallkill Valley	Freight	Study Need / Feasibility of Flatbush Ave. Overpass	•	•	•	•	•		
US-209-Roundout-Esopus Valley	Highway/Roadway	Initiate Route 209 Corridor Study		•	•	•	•	•	
US-209-Roundout-Esopus Valley	Highway/Roadway	Initiate Ellenville Traffic Study		•	•	•	•	•	
US-209-Roundout-Esopus Valley	Highway/Roadway	Study / Develop Route 209 Closure Plan		•	•	•		•	•
US-209-Roundout-Esopus Valley	Highway/Roadway	Complete Route 209 transportation improvements in Stone Ridge		•		•	•	•	•
US-209-Roundout-Esopus Valley	Highway/Roadway	Support Designation of Scenic Byway in the corridor						•	
US-209-Roundout-Esopus Valley	ITS/TDM/TSM	Apply access management techniques along 209		•	•				
US-209-Roundout-Esopus Valley	ITS/TDM/TSM	Study Potential Park and Ride In Stone Ridge		•		•			•
US-209-Roundout-Esopus Valley	ITS/TDM/TSM	Increase Awareness Of Existing Park and Ride At UCCC		•		•			•
US-209-Roundout-Esopus Valley	ITS/TDM/TSM	209 Traveler Information And Signal Improvements		•	•	•	•		
US-209-Roundout-Esopus Valley	Bicycle / Pedestrian	Include bike/ped component in 209 study	•	•	•			•	

Corridor Name	Key Issues	Improvement Strategies	Goals Achieved						
			Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity
US-209-Roundout-Esopus Valley	Bicycle / Pedestrian	Complete O&W trail from Ellenville to Kingston		•		•		•	
NY-28-Catskills	Highway/Roadway	Initiate NY Route 28 Corridor Study		•	•	•	•	•	
NY-28-Catskills	Highway/Roadway	Access Management Along Routes 28 and 212		•	•	•	•	•	
NY-28-Catskills	ITS/TDM/TSM	Travel Demand Management In Route 28 Corridor		•		•		•	
NY-28-Catskills	ITS/TDM/TSM	Study Recreational Shuttle Along Route 28		•		•	•	•	•
NY-28-Catskills	ITS/TDM/TSM	Develop A Park And Ride At 28/375 Intersection		•		•			•
NY-28-Catskills	ITS/TDM/TSM	Traveler Information And Signal / Intersection Improvements Along 28, 28A and 212		•	•	•	•		
NY-28-Catskills	Bicycle / Pedestrian	Initiate Pedestrian Study in Woodstock	•	•	•	•		•	•
NY-28-Catskills	Bicycle / Pedestrian	Implement Recommendations of The Ulster and Delaware Railroad Studies	•	•	•			•	
US-44/NY-55/NY-299-Shawangunk Mountain	Highway/Roadway	Initiate Study of 299 Corridor		•	•	•	•	•	
US-44/NY-55/NY-299-Shawangunk Mountain	Highway/Roadway	Apply Access Management To Commercial Areas		•	•	•	•	•	
US-44/NY-55/NY-299-Shawangunk Mountain	Highway/Roadway	Support designation of a Scenic Byway in the corridor			•	•	•	•	
US-44/NY-55/NY-299-Shawangunk Mountain	Highway/Roadway	Initiate accident study for 44/55 in Shawangunks		•	•				

Corridor Name	Key Issues	Improvement Strategies	Goals Achieved							
			Facilities	Mobility	Safety	Environment	Economy	Quality Communities	Equity	
US-44/NY-55/NY-299-Shawangunk Mountain	ITS/TDM/TSM	TDM outreach to employers in commercial districts		•		•	•	•		
US-44/NY-55/NY-299-Shawangunk Mountain	ITS/TDM/TSM	Traveler Information and Signal / Intersection Improvements along 299, 44/55 and 52		•	•	•	•			
US-44/NY-55/NY-299-Shawangunk Mountain	ITS/TDM/TSM	Access management along 28 44/55 and commercial areas		•	•		•			
US-44/NY-55/NY-299-Shawangunk Mountain	Bicycle / Pedestrian	Improve Pedestrian Accommodations Along 44/55 and 52		•	•	•	•	•		•
US-44/NY-55/NY-299-Shawangunk Mountain	Bicycle / Pedestrian	Incorporate Shoulder Improvements On County Roads		•	•	•	•			•

## **VI. Implementation**

### **A. Financial Plan**

#### **1. Financial Plan Requirements**

Federal Transportation Legislation requires that Long Range Transportation Plans contain a financial analysis that “demonstrates how the long-range transportation plan can be implemented, indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan, and recommends any additional financing strategies for needed projects and programs.”

It is also required that the financial analysis "demonstrates the consistency of existing and proposed transportation investments with already available and projected sources of revenue. The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining, and operating the total (existing plus planned) transportation system over the period of the plan."

#### **2. Available Transportation Funds**

Funding for transportation projects and programs comes primarily from three sources: federal, state and local governments. Private sources also may provide limited amounts of funds also.

Table 8 provides an estimate of the transportation funds available for Ulster County for the 25 years period of the plan from 2005 to 2030. This estimate has been prepared through working with state and local officials and is the best estimate available at this time. Due to the nature of transportation funding these estimates may vary from the actual funds available throughout the 25-year life of the plan. Also these estimate do not include any federal or state earmarks that might become available to Ulster County for transportation projects.

Table 8: Transportation Funds Available

Fund Source	Total Funds Available Ulster County FY 06 - FY 30 (\$, Millions)			
	Total	Capital	Maintenance	Transit
<b>Highway Funds</b>				
<b>Federal Highway Funds</b>				
National Highway System	79.40	79.40		
Highway bridge Rehabilitation	96.70		96.70	
Intersection Maintenance	47.20		47.20	
Surface Transportation Program - Flexible	84.4		84.4	
Surface Transportation Program - Small Urban	8.35		8.35	
Surface Transportation Program - Safety	7.00		7.00	
Surface Transportation Program - Rail	2.15	2.15		
Planning Funds	8.80	8.80		
<b>Federal Highway Total:</b>	<b>334.0</b>	<b>90.35</b>	<b>243.65</b>	
<b>Local Highway Funds</b>				
CHIPS (State Aid) - Local	56.70		56.70	
CHIPS (State Aid) - County	51.50		51.50	
Local Resources	14.25		14.25	
County Resources	78.25		78.25	
<b>Local Highway Total:</b>	<b>200.70</b>		<b>200.70</b>	
State Dedicated Funds	315.50		315.50	
<b>Highway Total:</b>	<b>850.20</b>	<b>90.35</b>	<b>759.85</b>	
<b>Transit Funds</b>				
State Transit Operating Assistance	12.50			12.50
Federal Transit Administration - 5307 (min. formula amount)	18.75			18.75
Federal Transit Administration - 5311	2.50			2.50
State Match	2.13			2.13
Local Match	2.13			2.13
<b>Federal Transit Total:</b>	<b>21.25</b>			<b>21.25</b>
<b>State Transit Total:</b>	<b>14.63</b>			<b>14.63</b>
<b>Local Transit Total:</b>	<b>2.13</b>			<b>2.13</b>
<b>Transit Total:</b>	<b>38.0</b>			<b>38.00</b>
<b>Total Funding</b>	<b>888.20</b>	<b>90.35</b>	<b>759.85</b>	<b>38.00</b>

### 3. Cost of the Plan Recommendations

Table 9 presents a summary of the costs for all of the countywide and corridor recommendations presented in Section V: 2030 Long-Range Transportation Plan. The total estimated cost for the recommended initiatives, including the maintenance on the State and Local System for the 25-year life of the plan is \$ 1,153,880,000 compared to the funds available of \$888,200,000.

### 4. Fiscal Constraint

The financial analysis indicates there is a shortfall of known funds available to complete all of the recommended initiatives and still provided enough funding to maintain the existing system in a “state of good repair” unless additional sources of funding are made available. A further examination of the funding sources and identified projects indicate that Transit services are adequately funded and the main shortfall in funding appears in the maintenance of the existing State and local highway and bridge system. The additional funds needed to complete all of the desired initiatives and provide adequate maintenance could come from federal earmarks, local revenues, private sources etc. It is noted that many of the plans recommendations for regarding Land Use, Access Management, ITS, TDM and other non construction actions could result in reducing the need for capital projects throughout the life of the plan. As part of the MPO process decisions will need to be made to delay projects or to delay desired maintenance on the existing highway system to manage the funds that are available. These decisions will be reflected in the UCTC TIP and future updates of the LRTP.

### B. New York State Energy Plan Conformance

The 2002 New York State Energy Plan (SEP) laid the foundation for many of the State’s transportation policies with regard to energy-efficient travel. The SEP is coordinated with the statewide Master Transportation Plan prepared by the NYSDOT and the SIP for air quality prepared by the NYSDEC.

The SEP achieves a true integration of transportation issues with energy, environmental and economic development issues. It contains several recommendations and goals that affect the transportation sector and how we do business. Among the more significant recommendations and goals are:

- Reducing energy use across all sectors and all fuels by 25 percent by 2010 from 1990 levels
- Reducing greenhouse gas emissions across all sectors and all fuels by 5 percent by 2010 and 10 percent by 2020 from 1990 levels
- Including greenhouse gas, air quality and energy production (and mitigation, as appropriate) in the development of transportation plans, programs and projects at a metropolitan and statewide level
- Redirecting transportation funding to energy efficient transportation alternatives

- Targeting open space funding to prevent suburban sprawl, reduce vehicle miles traveled, and reduce energy use and pollutant emissions
- Supporting, adopting and enhancing various emission control strategies

Table 9: Fiscally Constrained Analysis

Project Description	25-Year Cost Estimate	Fed/State Highway (Capital)	Funding Sources Fed/State Highway (Maintenance)	Fed/State Transit
State Highway / Bridge Maintenance	760.00		760.00	
Local Highway / Bridge Maintenance	310.80		310.80	
Corridor Studies	1.53	1.53		
Corridor Projects	22.70	22.70		
Traffic Studies	1.00	1.00		
Traffic / ITS Improvements	11.50	11.50		
Bike /Pedestrian Studies	0.15	0.15		
Bike /Pedestrian Improvements	5.85	5.85		
Freight Studies	0.30	0.30		
Freight Improvements	2.00	2.00		
Management Systems and Other Planning	0.68	0.68		
Transit Studies	0.20			0.20
Transit Equipment and Systems	7.18			7.18
Transit Enhancements	30.00			30.00
<b>Total Needs</b>	<b>1153.88</b>	<b>45.70</b>	<b>1070.80</b>	<b>37.38</b>
<b>Funding Available</b>	<b>888.20</b>			

The statewide Master Transportation Plan emphasizes maintaining transit infrastructure and providing operating improvements that will continue to improve the energy efficiency of travel in New York. The significant continuing investment in Intelligent Transportation Systems (ITS) statewide is also expected to have a positive effect on future energy use. The policies and objectives set forth in the SEP provide many areas where efforts to improve the efficiency of the transportation system are aligning with these new travel trends, such as the statewide ITS program, passenger rail and bus infrastructure upgrades, transit enhancements, promotion of new pedestrian and bicycle facilities, intermodal freight access improvements, and the New York State High Speed Rail Initiative.

Energy use in the transportation sector is derived from the amount of travel, expressed as Vehicles Miles Traveled (VMT), and fuel economy, expressed as miles per gallon (MPG). Increasing energy efficiency in the transportation sector can be accomplished by reducing VMT, increasing the fuel economy of the vehicles used for travel, or by reducing congestion and vehicle delays. Reducing VMT can be achieved in a number of ways, from an absolute reduction in travel to increasing the occupancy of each vehicle to move the same or more travelers in fewer vehicles (e.g., shifting from Single Occupant Vehicles (SOVs) to High Occupancy Vehicles (HOVs), which include carpools, vanpools, and transit vehicles).

The primary methods used to reduce congestion and its impacts are decreasing Vehicle Hours of Delay (VHD) and total VMT. Every action undertaken by UCTC, within the LRTP, to mitigate the growth of congestion attempts to accomplish one or both of these objectives. These actions by nature are multimodal; covering highway construction and operating projects, transit capital projects and operating policies (e.g., fare incentives), and motor carrier and rail freight services. Also by converting the Regional Travel Demand Model to TransCAD UCTC now has increased capabilities to analyze the regions conformance to the State Energy Plan.