8 SAFETY AND SECURITY

8.1 GOAL
To enhance the safety of the people using the transportation system.

8.1.1 OBJECTIVES

- To annually identify the ten highest accident locations in the SMTC area and recommend remediation measures that, within five years, will reduce the accident rate at these locations by an average of 25%.

- To identify the five highest intermodal accident locations (vehicle/pedestrian, transit/pedestrian, rail/vehicle, bicycle/vehicle, etc.) periodically, and to encourage remediation measures that will reduce intermodal conflict.

- To assist local planning officials and developers in accommodating travel between different areas when planning new developments.

8.2 TRENDS

8.2.1 SAFETY
This goal is rooted in ensuring a safe transportation system for all users as well as instilling a sense of security for all users. Safety projects continue to be a priority in the SMTC MPA. Safety projects not only look at automobile safety, but also address pedestrian and bicyclist safety.

**Accident Analysis – Motor Vehicle Collisions**

In 2009, the number of motor vehicle collision-related fatalities in the U.S. reached its lowest level since 1954, when the total number of miles driven by Americans was one-fifth what it is today. Collision-related fatalities have been gradually declining since the early 1980s, when the number of fatal accidents was on the order of 50,000 annually. In 2007, there were 41,259 recorded U.S. fatalities, but this number fell by 10% to 37,261 in 2008 and to just under 34,000 in 2009. A number of factors have been at work in the long-term decline, including increased safety standards for vehicles, the spread of seat belt and child restraint laws, safety awareness and education programs, and roadway improvements. The downturn in the national economy is likely the biggest factor in the dramatic drop from 2007 to 2009 (see *An Analysis of the Significant Decline in Motor Vehicle Traffic Fatalities in 2008* prepared by the National Highway Traffic Safety Administration in June 2010).

For ease of comparison from one year to another and one geography to another, accident data are frequently adjusted to show the number of accidents per 100 million vehicle miles traveled (VMT), or per 100,000 population. Adjusting the number of fatalities at the national level, there were 1.13 fatalities per million VMT in 2009, down from 1.55 in 1999 (see Table 8-1).
Motor vehicle fatalities have also declined in New York State since the late 1990s (see Table 8-2). The total number of collision-related fatalities was 1,238 in 2008, compared to 1,514 in 1998. Fatalities per 100 million VMT declined through the 2000s, from a high of 1.26 in 1999 to a low of 0.92 in 2008. While the state statistics show more variability than the national data, the trend in the last ten years has been toward fewer collision-related fatalities.
Adjusted for population, at the national level there were 12.3 collision-related fatalities per 100,000 people in 2008. This number fell to 11.01 in 2009. In New York State, the number of fatalities per 100,000 people has fallen steadily from a high of 7.5 in 2006 to its current low of 5.9. In Onondaga County, this number fell from 8.4 in 2007 to 7.5 in 2009. There were 31 fatalities in Onondaga County in 2006, 38 in 2007, 31 in 2008, and 34 in 2009 (see Table 8-3).

According to data from the National Highway Traffic Safety Administration (NHTSA), nearly 30% of Onondaga County’s collision-related fatalities in 2009 involved alcohol-impaired driving. Twenty-one percent involved speeding, 24% involved a motorcyclist, 38% involved a roadway departure and 21% occurred at an intersection.

Total reportable accidents increased in Onondaga County from 8,208 in 2006 to 10,279 in 2009, or 3.3% of the statewide total. According to information from the New York State Department of Motor Vehicles (NYSMDV), the single greatest factor contributing to collisions in Onondaga County was driver inattention; in 2008, driver distraction was an element in nearly a quarter of all...
collisions. Other major factors included failure to yield the right of way (17 percent), following too closely (16.4 percent) and unsafe speed (15 percent).

Table 8-3


<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities per 100K Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>14</td>
</tr>
<tr>
<td>2006</td>
<td>12</td>
</tr>
<tr>
<td>2007</td>
<td>10</td>
</tr>
<tr>
<td>2008</td>
<td>8</td>
</tr>
<tr>
<td>2009</td>
<td>6</td>
</tr>
</tbody>
</table>


Accident Analysis - Pedestrian Collisions

At the national level, the number of fatal motor vehicle collisions involving pedestrians has declined in recent years, in step with the decline in all collision-related fatalities. In 2009, there were 4,092 pedestrian fatalities, a 22 percent decline from 1998 when there were over 5,200 fatalities. This is a continuation of a long-term national trend: pedestrian fatalities have been declining since 1979, when there were nearly 8,100. (This long-term trend may be linked to the overall decline in walking as a means to get to work; the number of people walking to work fell from 6.4 million in 1960 to 3.8 million in 2000.) From 2005 to 2009, pedestrian fatalities consistently made up about 11.5 percent of all collision-related fatalities at the national level.

In New York State, pedestrian fatalities made up 26 percent of all collision-related fatalities in 2009. There were 306 pedestrian fatalities, a 16 percent decrease from 1998. Statewide, the total number of motor vehicle accidents involving a pedestrian fell from 15,700 in 2007 to 15,680 in 2009.

With 2.3 percent of New York’s total population, Onondaga County had 1.3 percent of the state’s total number of collisions involving pedestrians in 2009. Countywide, the number of collisions...
involving a pedestrian fell from 229 in 2007 to 196 in 2009. In 2009 there were 8 pedestrian fatalities, representing 24 percent of all collision-related fatalities.

Adjusted for population, the number of pedestrian fatalities per 100,000 residents fell nationwide between 2005 and 2009, from 1.65 to 1.33 (see Table 8-4). In New York State, there were 1.67 pedestrian fatalities per 100,000 residents in 2005, falling to 1.57 in 2009. In Onondaga County, there were 1.76 pedestrian fatalities per 100,000 residents in 2005 and in 2009, with a low of 1.1 in 2007.

Table 8-4

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>NYS</th>
<th>Onondaga Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1.65</td>
<td>1.67</td>
<td>1.76</td>
</tr>
<tr>
<td>2006</td>
<td>1.60</td>
<td>1.57</td>
<td>1.25</td>
</tr>
<tr>
<td>2007</td>
<td>1.37</td>
<td>1.57</td>
<td>1.10</td>
</tr>
<tr>
<td>2008</td>
<td>1.33</td>
<td>1.57</td>
<td>1.16</td>
</tr>
<tr>
<td>2009</td>
<td>1.33</td>
<td>1.57</td>
<td>1.10</td>
</tr>
</tbody>
</table>


According to national data, alcohol involvement, either by the pedestrian or the driver, was reported in 48 percent of collision-related pedestrian fatalities. Thirty-six percent of pedestrians involved in fatal collisions, compared with 13 percent of drivers, had a high blood alcohol concentration. Data for Onondaga County indicate that alcohol was involved in one of the fatal pedestrian collisions each year in 2006, 2007, and 2008.
At the national level, senior citizens (age 65 and over) made up 18 percent of all pedestrian fatalities. In New York State, this age group made up 24.4 percent of all pedestrian fatalities.

The New York State Department of Motor Vehicles’ (NYS DMV) 2009 data on pedestrian/motor vehicle accidents indicates that a slim majority (51.9 percent) of collisions involving pedestrians occurred at intersections and that 26.6 percent of all pedestrian-motor vehicle collisions involved pedestrians crossing with a signal. Forty-three percent of collisions involving a pedestrian occurred between 3 p.m. and 9 p.m.

**Accident Analysis - Bicycle Collisions**

Nationally, fatalities from bicycle/motor vehicle collisions are much less common than pedestrian/motor vehicle collisions. Pedestrian fatalities make up about 11 percent of all collision-related fatalities, while cyclist fatalities make up less than two percent annually. Trips by bike are not as common as pedestrian trips: according to the National Bicycling and Walking Study – 15 Year Update, pedestrian trips in the U.S. grew from 18 billion in 1990 to more than 40 billion in 2009, while bicycling trips grew from 1.7 billion to 4 billion in this period.

Though cycling trips have increased nationally, the total number of cycling fatalities due to motor vehicle collisions has been falling in recent years. There was a 20 percent decline in bicyclist fatalities nationally between 2005 and 2009, dropping from 786 to 630.

In New York State there was a slight rise in total bicycle/motor vehicle accidents from 2005 to 2009, increasing from 5,535 to 5,620. At the same time, fatal bicycle/motor vehicle collisions fell from 49 to 29 in this period. According to NYS DMV data for 2009, 27 percent of bicycle/motor vehicle accidents were the result of bicyclist error or confusion. Other contributing factors included driver inattention (20 percent of accidents), failure to yield the right of way (19 percent of accidents) and disregarding traffic controls (six percent of accidents).

National data also indicate a high proportion of collisions involving alcohol. According to the National Highway Traffic Safety Administration (NHTSA), either the driver or the cyclist was found to have a high blood alcohol content level in 31 percent of bicycle/motor vehicle collisions.

According to the DMV’s statistics, 47 percent of cyclists involved in collisions in 2009 were not wearing helmets. Of the 29 collision-related bicycling fatalities in this year, 48 percent of cyclists were not wearing helmets.

Between 2005 and 2009, collision-related cyclist deaths made up four percent of all collision-related deaths in Onondaga County. Fatal motor vehicle/bike collisions are relatively rare in Onondaga County, varying from zero to three a year over the last four years. Adjusted for population, there were 0.22 fatalities from bike-vehicle collisions per 100,000 residents countywide in 2009, compared to 0.15 fatalities per 100,000 residents statewide and 0.21 fatalities per 100,000 residents nationally (see Table 8-5).
Table 8-5

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>NYS</th>
<th>Onondaga Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0.20</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td>2006</td>
<td>0.20</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td>2007</td>
<td>0.20</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td>2008</td>
<td>0.70</td>
<td>0.50</td>
<td>0.30</td>
</tr>
<tr>
<td>2009</td>
<td>0.60</td>
<td>0.40</td>
<td>0.20</td>
</tr>
</tbody>
</table>


Total reported bicycle/motor vehicle collisions increased in Onondaga County between 2005 and 2009, from 113 to 143. Adjusted for population, there were 31.5 bike-vehicle collisions per 100,000 residents countywide in 2009, compared to 28.8 per 100,000 residents statewide.

**High Accident Locations**

The SMTC member agencies play a key role in reducing the number and severity of accidents, with much of the local effort directed at engineering improvements to the highway system itself. Map 8-1 and the accompanying tables shows the ten highest motor vehicle collision locations in the MPA by jurisdiction (New York State, Onondaga County, and City of Syracuse). The accident data for this map cover the three-year period of 2006 through 2009 and were obtained from the NYSDOT Accident Location Information System (ALIS). The presence of a high number of accidents does not always indicate a problem with a particular location. A road with a large number of accidents may actually have a relatively low accident rate due to high traffic volumes. Other locations that have a low number of accidents may have a relatively high accident rate due to low traffic volumes. The highest accident locations between June 2006 and June 2009 are Thompson Road/Carrier Parkway (New York State), Onondaga Road/Old Route 5 (Onondaga County), and West Hiawatha Boulevard/Solar Street (City of Syracuse).
### 10 Highest Accident Locations in the MPA by Jurisdiction

**Long-Range Transportation Plan 2011 Update**

**Map 8-1**

This map is for presentation purposes only. The SMT does not guarantee the accuracy or completeness of this map.

#### New York State

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Location</th>
<th>Total Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYS-1</td>
<td>Thompson Rd &amp; Carrier Pkwy</td>
<td>146</td>
</tr>
<tr>
<td>NYS-2</td>
<td>Thompson Rd &amp; Erie Blvd East</td>
<td>78</td>
</tr>
<tr>
<td>NYS-3</td>
<td>Lakeshore Rd &amp; NY31</td>
<td>43</td>
</tr>
<tr>
<td>NYS-4</td>
<td>Belgium Rd &amp; Ramp I-81 to NY31</td>
<td>43</td>
</tr>
<tr>
<td>NYS-5</td>
<td>High Bridge Rd and Woodchuck Hill Rd</td>
<td>40</td>
</tr>
<tr>
<td>NYS-6</td>
<td>Brewerton Rd &amp; East Circle Dr</td>
<td>40</td>
</tr>
<tr>
<td>NYS-7</td>
<td>Teal Ave &amp; Erie Blvd East</td>
<td>40</td>
</tr>
<tr>
<td>NYS-8</td>
<td>South Midler Ave &amp; Erie Blvd East</td>
<td>36</td>
</tr>
<tr>
<td>NYS-9</td>
<td>West St Arterial &amp; West Fayette St</td>
<td>35</td>
</tr>
<tr>
<td>NYS-10</td>
<td>Erie Blvd East corridor, near Midler Ave</td>
<td>34</td>
</tr>
</tbody>
</table>

#### Onondaga County

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Location</th>
<th>Total Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONO-1</td>
<td>Onondaga Rd &amp; Old Route 5</td>
<td>37</td>
</tr>
<tr>
<td>ONO-2</td>
<td>Old Route 57 &amp; John Glenn Blvd</td>
<td>35</td>
</tr>
<tr>
<td>ONO-3</td>
<td>Milton Ave &amp; Hinsdale Rd</td>
<td>34</td>
</tr>
<tr>
<td>ONO-4</td>
<td>Buckley Rd &amp; West Taft Rd</td>
<td>29</td>
</tr>
<tr>
<td>ONO-5</td>
<td>Hinsdale Rd &amp; Old Route 5</td>
<td>25</td>
</tr>
<tr>
<td>ONO-6</td>
<td>Old Route 5 &amp; Vanida Dr</td>
<td>25</td>
</tr>
<tr>
<td>ONO-7</td>
<td>Vine St &amp; Henry Clay Blvd</td>
<td>24</td>
</tr>
<tr>
<td>ONO-8</td>
<td>7th North St &amp; Electronics Pkwy</td>
<td>24</td>
</tr>
<tr>
<td>ONO-9</td>
<td>Lemoyne Ave &amp; Factory Ave</td>
<td>20</td>
</tr>
<tr>
<td>ONO-10</td>
<td>East Taft Rd &amp; Northern Blvd</td>
<td>19</td>
</tr>
</tbody>
</table>

#### City of Syracuse

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Location</th>
<th>Total Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYR-1</td>
<td>West Hiawatha Blvd &amp; Solar St</td>
<td>79</td>
</tr>
<tr>
<td>SYR-2</td>
<td>Harrison St &amp; Almond St</td>
<td>66</td>
</tr>
<tr>
<td>SYR-3</td>
<td>Teal Ave &amp; Burnet Ave</td>
<td>57</td>
</tr>
<tr>
<td>SYR-4</td>
<td>Almond St &amp; East Adams St</td>
<td>47</td>
</tr>
<tr>
<td>SYR-5</td>
<td>Teal Ave &amp; Grant Blvd</td>
<td>54</td>
</tr>
<tr>
<td>SYR-6</td>
<td>East Fayette St &amp; South Salina St</td>
<td>52</td>
</tr>
<tr>
<td>SYR-7</td>
<td>South Geddes St &amp; West Fayette St</td>
<td>47</td>
</tr>
<tr>
<td>SYR-8</td>
<td>South Geddes St &amp; West Onondaga</td>
<td>46</td>
</tr>
<tr>
<td>SYR-9</td>
<td>North Salina St &amp; West Genesee St</td>
<td>44</td>
</tr>
<tr>
<td>SYR-10</td>
<td>James St &amp; Lodi St</td>
<td>42</td>
</tr>
</tbody>
</table>
Map 8-2 shows bicycle and pedestrian accidents that occurred within the SMTC MPA and the City of Syracuse between June 2006 and June 2009. The locations with the most bike and pedestrian accidents during this three year time-frame are as follows:

<table>
<thead>
<tr>
<th>Pedestrian Accidents</th>
<th>Bicycle Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location (# accidents)</td>
<td>Location (# accidents)</td>
</tr>
<tr>
<td>South Salina/East Fayette Streets (9)</td>
<td>South Geddes/Scymour Streets (4)</td>
</tr>
<tr>
<td>South Clinton /West Fayette Streets (5)</td>
<td>Brewerton Road/Ramp I-81 to US 11 (3)</td>
</tr>
<tr>
<td>Lodi/Butternut Streets (4)</td>
<td>South Salina/East Fayette Streets (3)</td>
</tr>
<tr>
<td>Midland/West Ostrander Avenues (4)</td>
<td>NY 175/Valley Drive (4)</td>
</tr>
</tbody>
</table>

The majority of pedestrian accidents occurred in downtown Syracuse, near Centro’s current transit hub, where numerous pedestrians wait for buses on a daily basis.

New York State DOT locations

In accordance with Title 23 of the *United States Code*, each state is federally required to describe at least five percent of its locations that currently exhibit the most severe highway safety needs. The report includes potential remedies to the hazardous locations identified, estimated costs of the remedies, and impediments to implementing the remedies (other than cost). To that end, New York State prepared the *2010 Annual Evaluation Report Highway Safety Improvement Program Five Percent Report* in August 2010, with the report period of 7-1-09 through 3-31-10. NYSDOT Region 3’s highway segments/intersections exhibiting the most severe safety needs in 2010 include:

- Northern Concourse/South Bay Road Spur/Route 11 to Bailey Road
- East Crabtree – Pardee Road/I-81
- Route 298 at Carrier Circle, Onondaga County, Town of DeWitt
- Adams Street Arterial (930C) at Almond Street/I-81.


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Bicyclist and Pedestrian Accident Locations
Long-Range Transportation Plan 2011 Update

Map 8-2

This map is for presentation purposes only.
The SMTC does not guarantee the accuracy or completeness of this map.
Safety Improvement Analysis

The SMTC also conducts an annual Safety Improvement Analysis (SIA) (formerly known as the Accident Surveillance Program) as part of the SMTC’s UPWP. The program, which is intended to identify and analyze priority vehicular collision locations, is offered to both the OCDOT and the City of Syracuse DPW. The SIA completed during the 2010-2011 UPWP program year addressed ten priority collision locations as determined by the OCDOT. The objective of the SIA report is to provide the member agency with an assessment of their ten priority vehicular collision locations. To accomplish this, data collection is completed and a detailed analysis of each accident location is prepared.

The SMTC utilized the NYSDOT’s ALIS to determine the number and location of all collisions on roads within Onondaga County for the three year period, from January 1, 2006 to January 1, 2009. The OCDOT identified a preliminary list of 24 locations under their jurisdiction to be queried in ALIS. Based on factors such as number of collisions and number of injuries, OCDOT selected the following ten locations to be analyzed:

1. Bear Road at Allen Road
2. West Taft Road at Bear Road
3. Electronics Parkway at Old Liverpool Road
4. Kirkville Road at Fremont Road
5. Kirkville Road at Minoa Schepps Road
6. Milton Avenue at Bennett Road
7. Milton Avenue at Warners Road
8. Northern Boulevard (northbound) at Northern Boulevard (southbound)
9. North Burdick Street at Cedar Bay Road
10. West Genesee Road at Whedon Road.

Collision summary reports and collision diagrams were prepared for all ten locations based upon the data contained in the ALIS records. In conjunction with the summary reports and collision diagrams, various traffic data were collected at each location. This data included morning and evening peak hour turning movement counts, intersection geometry, pavement markings, traffic signage, and signal timing and phasing data. Analysis of these data sets completed the problem identification phase of the project. Intersection diagrams were also prepared based on the actual conditions of the intersection. Highway Capacity Software and Synchro were used to determine the Level of Service and delay for each intersection.

The completed 2010-2011 SIA is intended to provide the OCDOT with a multi-dimensional analysis of 10 priority intersections, based on collision rates. Although the SIA does not provide recommendations, it lays the groundwork for the OCDOT to complete its own analysis of the intersections so that the agency can determine which locations warrant safety improvements.
Safe Routes to School

The SMTC has also played a role locally in the Safe Routes to School Program (SRTS), a Federal-Aid program of the U.S. Department of Transportation Federal Highway Administration (FHWA). The Program was created by Section 1404 of SAFETEA-LU. The SRTS Program was funded at $612 million over five Federal fiscal years (FY 2005-2009) and was administered by State Departments of Transportation (DOTs).

The Program provided funds to the States to substantially improve the ability of primary and middle school students to walk and bicycle to school safely. The purposes of the program are:

1) to enable and encourage children, including those with disabilities, to walk and bicycle to school,

2) to make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age, and

3) to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity (approximately 2 miles) of primary and middle schools (Grades K-8).2

New York State received approximately $32 million over the multi-year period for SRTS projects. This $32 million was further allocated throughout each of the eleven NYSDOT Regions as necessary based on individual project needs. In New York State, the SRTS program consisted of both infrastructure and non-infrastructure project types. Infrastructure projects could range from sidewalks, crosswalk installation, and shared use paths, among others. Non-infrastructure projects relate to educational opportunities and enforcement.

Within the SMTC MPA, three municipalities were awarded funding as part of the State’s project solicitation:

1. City of Syracuse;
2. Town of Manlius; and

The City of Syracuse project was developed to focus resources in proximity of two elementary schools for dedicated infrastructure improvement and enhancement. Funds awarded to the Town of Manlius were utilized for enforcement purposes within the required two-mile radius of primary and middle schools, while the Village of Fayetteville project connects and completes the sidewalk network throughout the village.

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Although SAFETEA-LU has been extended several times since September 2009, without a full reauthorization, at this time it is difficult to predict if the USDOT SRTS program will continue.

**Onondaga County Traffic Safety Advisory Board**

Another safety-related effort of the MPO includes being an active participant as a member of the Onondaga County Traffic Safety Advisory Board (OCTSAB) over the years. SMTC staff members have served as Chairperson and Secretary to the OCTSAB. The mission of the OCTSAB is “to foster cooperation and partnerships between all involved agencies, including law enforcement and community members, who have a vested interest in the education and enforcement of traffic safety within Onondaga County.”¹ To that end, staff has served as the chair of the annual *Lights On Caravan*, held yearly to remember the victims of impaired driving incidents in Onondaga County. The Caravan begins at the CNYRTA headquarters and travels throughout Onondaga County to raise awareness in the month of December. Additionally, the OCTSAB recognizes the traffic safety efforts of area law enforcement professionals and other transportation professionals at their annual Recognition Ceremony. The OCTSAB also has subcommittees that address such issues as Aggressive Driving and Bicycle and Pedestrian Safety. Since the inception of the annual Share the Road Expo (formerly known as the Traffic Safety Fair), the SMTC has participated by promoting various aspects of the annual work program.

**Bridge and Road Safety Conditions**

Highway and bridge infrastructure are significant aspects of the transportation system in Onondaga County. The safety of the traveling public is of great importance, and it has improved during the past decades. Maintaining the current infrastructure is an important long range transportation goal of the SMTC MPA, and the majority of financial resources are allocated to the maintenance of existing highways and bridges. Detailed updated information on road and bridge conditions in the MPA is contained in the Facilities Chapter (Chapter 3) of this document.

**NYSDOT Strategic Highway Safety Plan**

The purpose of the 2010 New York State Strategic Highway Safety Plan (SHSP) is to promote best practices and strategies that, if implemented, could have a substantial impact on reducing fatal and injury crashes³. The 2010 SHSP identifies seven emphasis areas including driver behavior, pedestrians, large trucks, motorcycles, highways, emergency medical services, and traffic safety information systems. The SHSP addresses infrastructure based improvements to highway safety. SMTC programs and activities are intended to advance the SHSP through complimentary


infrastructure- and program-based countermeasures, including the previously noted Safety Improvement Analysis, and the agency’s participation in the state-wide Safety Working Group.

**Safety Working Group**

As safety is a primary planning activity contained in federal transportation policy, the SMTC advocates and advances various safety planning activities through a variety of measures. In particular, staff participates on the NYSMPO Safety Working Group (SWG).

“The SWG is a coalition MPOs, state, and federal agencies working to advance safety initiatives intended to preserve, maintain, and improve safety for all users in New York State. The SWG discusses safety-related issues in an effort to advance safety planning in New York State among local, state, and federal partners. The SWG holds teleconferences on a monthly basis and biannual in-person Safety Roundtable meetings to discuss SWG goals and related action items.”

This involvement and other safety activities previously noted in earlier sections adhere to the intent of CFR 450.322 (h).

### 8.2.2 Security

**SAFETEA-LU Legislation**

Within the SAFETEA-LU legislation, an additional planning factor was added to address security as its own entity (see Chapter 1 for the planning factors). Furthermore, according to the Federal Register Final rule for Metropolitan Transportation Planning, “the metropolitan transportation plan should include a safety element that incorporates… emergency relief and disaster preparedness plans and strategies and policies that support homeland security (as appropriate) and safeguard the personal security of all motorized and non-motorized users.”

The FHWA/FTA’s 2009 review of the SMTC called out the importance of security considerations in the SMTC Planning Process. Security issues include significant disruptions to the transportation system, either long or short term, intentional or not. Previously, the issue of security had not yet become a significant part of the MPO planning processes. However, the issue of security is now a part of the MPO planning process, notably via the SAFETEA-LU legislation through the separation of the safety and security planning factor, and the requirements for addressing security within the metropolitan transportation plan (noted above).

Since September 11, 2001, security has affected all levels of government in a substantial manner. Transportation is no exception. The SMTC recognizes the importance of safeguarding the personal security of users of the transportation network. The current role of the SMTC is essentially “traditional” as the MPO is not directly involved in security operations per se, but it does have direct communication and interaction with key security agencies, incorporating them into the regional

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planning process (NYSDOT, Onondaga County, CNYRTA, NYSTA). The SMTC’s role in addressing security concerns has been primarily supportive in nature, as most issues related to security and transportation are outside the purview of the MPO. However, the SMTC can and does act as a conduit to facilitate interagency cooperation to that end.

In support of security planning, the SMTC had begun working on a project titled “Emergency Travel Routes.” The project was to be a multi-year task that entailed the preparation and wide dissemination of information necessary for management of travel demands related communications during emergency events. This project was planned to be a collaborative effort, not only by SMTC member agencies, but also including the NY State Emergency Management Office, as well as carefully targeted participation for those public, private, and non-profit departments and agencies with responsibilities for traffic management and public health and safety during emergencies in Onondaga County. Work products were to include GIS databases of the transportation system and transit resources and routes tailored to needs of first responders and emergency management and communications authorities, as well as plans and implementation strategies and necessary capital improvements. The SMTC member agencies requested that the SMTC place the “Emergency Travel Routes” project on hold, as Onondaga County had recently begun the process of creating a new all county Hazard Plan. The SMTC will pursue the Emergency Travel Routes study when member agencies determine the most appropriate timing for this project.

**Onondaga County All-Hazard Plan**

Through a grant from the Federal Emergency Management Agency (FEMA), SOCPA is in the process of developing a multi-jurisdictional Hazard Mitigation Plan (HMP) for Onondaga County. The mission of the Onondaga County Multi-Jurisdictional Hazard Mitigation Plan is to: “protect the health, safety, property, environment and economy of the communities within Onondaga County by partnering to identify and reduce our vulnerability to natural hazards in a proactive and efficient manner.”

The plan will allow Onondaga County and participating municipalities to be eligible for future mitigation funding from the FEMA. Sections of the Interim Draft Plan are available on SOCPA’s website (http://www.ongov.net/planning/haz/docs.html) as they are prepared. The SMTC and various SMTC agencies have participated in the development of the County HMP as Steering Committee members since September 2008.

As noted on SOCPA’s website:

“The goal of the plan is to identify projects that can reduce damages from future natural hazards. The plan will include a risk assessment and a hazard-mitigation strategy. The primary hazard in Onondaga County is

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flooding, but other potential hazards to be analyzed include severe storms, severe winter storms, landslides, and wildfire.

The study will focus on existing and future buildings, and infrastructure and critical facilities that might be impacted. Infrastructure includes power-generation facilities, water utilities, roadways, railroads and communication systems. Critical facilities include shelters and hospitals. A series of public meetings have been part of the plan development process, both to solicit public comment and to present the draft plan to residents and local officials."

NYSDOT and Centro
The NYSDOT has included a section in their Master Plan regarding transportation security. Chapter 7 (Security) in the NYSDOT Master Plan states the following:

In the wake of the September 11, 2001 terrorist attack, security concerns have moved to the forefront of transportation planning in New York State. The State Office of Homeland Security, created in response to the attack, is by law responsible for overseeing State resources applied to detection, prevention and, if necessary, response to a future attack. The New York State Emergency Management Office (SEMO) plans and coordinates the response of the State in times of emergency or disaster. Transportation operators have a significant role to play in the larger State efforts directed at Homeland Security. Transportation facilities such as airports, ports, and border crossings serve as critical gateways into the State but could also be portals for potential terrorist actions. Other large transportation assets, including the State's major tunnels and bridges, subway systems and major rail and subway stations unfortunately are targets. Because the State's transportation system plays an essential role in emergency response, operators must also be prepared to respond in the event of a major incident. The State's transportation customers as well as the public at large expect transportation operators to take every reasonable measure to ensure the safety of travelers and cargoes. Further, they expect that transportation will function effectively if there is an emergency. At the very least, they expect that transportation services and facilities, disrupted by an attack, will be restored quickly and that other alternative transportation services and facilities will operate during a time of emergency.

One issue that the Master Plan addresses is how NYSDOT conducts emergency preparedness and develops response plans. NYSDOT’s Strategy to address this is to Coordinate Emergency Preparedness and Response. Specifically, examples include: operating agencies developing vulnerability and risk assessments for transportation facilities based upon the potential cost of an event in consultation with State and Federal homeland security agencies; identification of specific facilities which are most essential or critical to the functioning of transportation or to other crucial infrastructure sectors; undertaking mitigation efforts among and between all transportation operators to implement strategies to minimize the risk of damage to their at-risk facilities and vehicles; Federal and State agencies with security responsibility will ensure that all transportation operators and local governments coordinate in planning for the response to an event; transportation operators will coordinate and collaboratively work with the New York State Office of Cyber Security and Critical Infrastructure Coordination (CSCIC) to ensure cyber readiness, resilience, and response efforts. They will work closely to establish partnerships and ensure that there is facilitated communication and

information sharing between both public and private sector transportation operators; real-time information exchange and collaboration will be promoted between and among transportation operators and the public sector, including CSCIC, for geographical information technologies and information on critical infrastructure assets, to quickly assess the situation, identify available assets, and effectively coordinate efforts both during and after an event; NYS DOT will continue to work with the Office of Homeland Security, Metropolitan Transportation Authority, Port Authority of New York and New Jersey, and New York City Department of Transportation through Bi-weekly Agency Heads Meetings and their Transportation Security Subcommittee to collaborate on best security practices across all modes of transportation; emergency management and evacuation planning will be lead by the county, municipal and local governments who are responsible for preparing evacuation plans for their respective areas in the case of natural and man-made disasters.

Another issue addressed in the security section of the Plan is how the protection of facilities identified as vulnerable be accomplished cost effectively so that other transportation goals can continue to be advanced. Additionally, the Plan reviews how efforts to protect against attack can be implemented without unduly undermining the goals for improved mobility and reliability and economic vitality. NYS DOT’s strategy is to balance security with reliability conclusion. This can be accomplished by additional security measures when official security threat levels or intelligence necessitate them; specific programs to protect high risk facilities will be implemented, continuously monitored for their effectiveness, and improved as necessary; ensuring that all transportation operators adopt appropriate security measures for each of their vulnerable facilities; paying special attention to border crossings with Canada, ports and waterways, and airports.

While much of the leadership and funding to promote secure transportation for these strategies will be provided by the Federal Government, New York State is committed to working in partnership with Federal and local authorities to carry out the necessary security planning and to implement coordinated and prudent actions by all transportation operators. Because transportation is vital to the Nation’s and the State’s well being, it is essential that all transportation operators support these efforts while continuing to promote improved transportation services for all customers. Security will remain at the forefront of transportation management during the life of the Plan.

New York State’s official traffic and travel information source that includes travel information from the NYS DOT Region 3 is called 511NY.11 Traffic and transit conditions as well as a transit trip planner and ride share information can be found on the 511NY website, http://www.511ny.org/, along with construction alerts and weather updates. All of this information can also be accessed via phone and/or mobile application through a cellular phone. The NYS DOT and NYSTA provide the highway information for Region 3 to the 511 service.

Locally, the NYS DOT Region 3 established a Traffic Management Center (TMC) in the State Office Building which has been operational since October 2004. The facility is staffed with NYS DOT employees and is operated around the clock. The TMC dispatches snow and ice operations for Onondaga County and operates the permanent and portable Dynamic Message Signs (DMS) in the

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Syracuse area. The Traffic Operations Working Group (also established by NYSDOT Region 3) supports the TMC. Several local public safety agencies and personnel participate in the working group which focuses on detour routes and incident management. The SMTC provides GIS assistance to the working group as requested.

Centro is also implementing new security measures to be proactive regarding security concerns. In 2010 they incorporated more fencing around the CNYRTA property. Other security measures have been added to the inside of the building.

**Hancock International Airport**

According to the Syracuse Hancock Airport’s web site, the Passenger Terminal Security and Access Improvement Project creates a single central passenger screening location on a new second level in what is now the center lobby. This security checkpoint will be accessible from a new vertical circulation structure in the center of the building.

According to the Passenger Terminal Security and Access Improvement Project newsletter, project features include:

- A 147,000-square-foot addition that will connect the two separate wings of the terminal on the second level, both pre- and post- passenger security screening points.

- Green design and construction techniques that will significantly reduce operating costs for the building and reduce the building’s carbon footprint. Proposed techniques include solar panels to produce electricity and hot water; construction techniques that minimize waste and encourage recycling; extensive use of natural daylighting; enhanced indoor environmental quality; and the use of sustainable construction materials. The use of green technology combined with the installation of more energy-efficient HVAC equipment is estimated to reduce terminal operating and maintenance costs by as much as $1.00 per square foot per year.

- The addition creates a single central passenger screening location on a new second level in what is now the center lobby. This security checkpoint will be accessible from either wing or a new vertical circulation structure in the center of the building. Deplaning passengers will still be permitted to exit each wing directly to the parking garage or the center of the building via escalator or elevator.

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• Approximately 30,000 square feet of the new addition will accommodate the relocation of TSA baggage screening equipment and personnel behind existing airline ticket counters. This new baggage screening space also accommodates installation of an automated inline baggage screening and sort system in the future.\textsuperscript{15}

\textit{Intelligent Transportation Systems (ITS)}

One of the most significant components of security in the MPO area is the Intelligent Transportation Systems (ITS) initiative. ITS refers to the application of electronics, communications, hardware, and software that support various services and products to address transportation challenges. When deployed in an integrated fashion, ITS allows the surface transportation system to be managed as an intermodal, multi-jurisdictional entity, appearing to the public as a seamless system. The United States Department of Transportation has been advancing the development and deployment of ITS through various programs.

The NYSDOT in conjunction with the SMTC and its member agencies developed the Intelligent Transportation System Strategic Plan (2003) for deployment of ITS for the Syracuse Metropolitan Area (principally Onondaga County). In addition to providing recommendations for the NYSDOT, the study also included recommendations for the City of Syracuse Department of Public Works, the Onondaga County Department of Transportation (OCDOT), the New York State Thruway Authority (NYSTA) and the Central New York Regional Transit Authority (CNYRTA). The study was primarily concerned with traditional traffic flow; hence a detailed analysis of emergency service provider’s overall ITS needs were not part of this study.

The study’s regional ITS architecture framework also included recommendations, intended to be advisory, for key regional transportation agencies in the spirit of developing integrated ITS in the region. Please refer to the complete study for reference; this LRTP update includes only select excerpts and summarizations. Further information can be found at the SMTC’s web site at: [www.smtcmpo.org/finalreps.asp?fy=2003&ShowAll=0](http://www.smtcmpo.org/finalreps.asp?fy=2003&ShowAll=0).

The ITS study created three key components: Technical Memorandum # 1 - ITS Concept Plan; Technical Memorandum # 2 - ITS Regional Architecture; and Technical Memorandum # 3 - ITS Implementation Plan.

\textsuperscript{15} Terminal Security Upgrade, Hancock International Airport website: [http://www.syrairport.org/about/projects/termsec.cfm](http://www.syrairport.org/about/projects/termsec.cfm).
**ITS Implementation Plan**

The final product of the ITS study is an overall ITS implementation plan in the form of proposed individual projects to be deployed over a period of time. The implementation plan provides recommendations for the NYSDOT Region 3, the City of Syracuse Department of Public Works, NYSTA, OCDOT, and CNYRTA.

The following is a list of ITS Projects by agency that have been completed as of April 2011:

- **City of Syracuse**: There are 24 projects put forth via the ITS Strategic Plan as of December 2006. The City of Syracuse has completed the following ITS projects:
  - Expansion of the City’s Traffic Signal Communications Network,
  - Design and Construction of an Inter Connect Expansion Project on Geddes and West Genesee Streets,
  - Design and Construction of the North Salina and Lodi Streets Interconnect Expansion.

- **Onondaga County**: There are 21 projects put forth via the ITS Strategic Plan for Onondaga County as of December 2006. Onondaga County has completed the following ITS projects:
  - Purchase of 2 portable Variable Message Signs (VMS),
  - Signal System Expansion Phase I (Route 57),
  - Signal System Expansion Phase II (South Bay Road, and West and East Taft Road),
  - Vehicle Fleet Administration Project – Phase I (Automated Vehicle Locators, AVLs, added to 50 County vehicles),
  - Snow Removal Vehicle Fleet Administration Pilot Project Phase II (Automated Vehicle Locators added to snow removal vehicles),
  - Vehicle Fleet Administration (AVL project) – Phase 3 (AVLs added to 30 County vehicles),
  - Signal System Expansion Phase 4 (Electronics Parkway, Henry Clay Boulevard, Hopkins Road, Buckley Road and Seventh North Street) is on the TIP for 2013.

- **NYSDOT Region 3**: There are 34 projects put forth via the ITS Strategic Plan for NYSDOT Region 3 as of December 2006. NYSDOT has completed the following ITS projects:
  - Various phases of the ITS Regional Freeway Management System (Phases V, VI, VII, and VIII are on the program for completion),
  - The NYSDOT Regional Transportation Management Center (along with continued/yearly maintenance and operation of the center),
  - The statewide 511 Travel Information System (completed by Main Office DOT),
  - The ITS Systematic Performance Monitoring Project (within the statewide Advanced Transportation Management System),
- Location expansion and software upgrade of the Road Weather Information System (RWIS),
- Conversion of 233 intersections to 2070 traffic controllers.

- **New York State Thruway Authority**: There are eleven projects put forth via the ITS Strategic Plan for the Thruway Authority as of December 2006. The NYSTA has completed the following ITS projects:
  - Regional Transportation Management Center (with on-going annual maintenance by Thruway forces),
  - ITS Implementation System – Phases I & II,
  - Road Weather Information System (RWIS) station,
  - Full Coverage of CCTV surveillance, 3 Cameras and 2 more VMS project is nearing completion.

- **CNYRTA**: There are 32 Projects put forth via the ITS Strategic Plan for Centro as of December 2006. The CNYRTA has completed, or will complete in the near future the following ITS projects:
  - Automated Transit Itinerary agency-based planning,
  - Web-based itinerary planning,
  - Automated Vehicle Locator (AVL) System (with expansion planned for 2014),
  - Radio System Upgrade,
  - Automatic Passenger Counters (with expansion planned for 2014),
  - On-board Traveler Information System,
  - Surveillance System,
  - Automated Fare Collection Machine (planned for January 2012 at the new Syracuse transit hub),
  - Display Monitor System planned for January 2012,
  - Interactive Kiosks planned for January 2012.

For comprehensive information relating to the ITS Strategic Plan please refer to either the “Syracuse Metropolitan Area Intelligent Transportation Systems Strategic Plan” or the complete Executive Summary. Further information can be found at the SMTC’s web site ([http://www.smtcmapo.org/finalreps.asp?fy=2003&ShowAll=0](http://www.smtcmapo.org/finalreps.asp?fy=2003&ShowAll=0)).

Transportation security will continue to be a topic of interest for the SMTC. As the SMTC Planning Certification Review notes, prevention of potential security issues is very important, but due to the nature of our transportation system, it is also important to focus on the response and recovery measures. The SMTC’s role during the future years will be to continue to facilitate discussion as well as aid in emergency planning exercises.
8.3 PLANNING EFFORTS

8.3.1 MEMBER AGENCY ACTION PLANS RELATED TO SAFETY

The SMTC and its member agencies continue to work towards the achievement of the LRTP’s safety and security goals and objectives. As such, the following action plans have either been implemented or are being implemented by member agencies since the 2007 LRTP Update:

1. The New York State Department of Transportation (NYSDOT) has instituted an annual program to identify high accident locations and develop accident countermeasures to reduce the number and severity of these crashes, including the following:

- A project on Route 5 at Route 635 to be let in spring 2011 will resurface both Route 5 approaches to address an identified Priority Incident Location (PIL) and will re-align the westbound right turn slip ramp to bring movement into the signal.

- A project that replaced the Bartell Road bridge over I-81 in Brewerton was completed in March 2010. This $6.7 million project included measures to reduce the skew angle of the I-81 northbound exit ramp for traffic turning right onto Bartell Road. Replacement of the bridge increased safety and capacity.

- A safety project along Route 11 at Route 49 intersection to address capacity related issues involving patterns of right angle crashes associated with County Route 12 (Mallory Street) has been completed.

- A Maintenance by Contract (MBC) project will resurface the Bear Road extension Route 930J from Route 11 to South Bay Road and widen narrow shoulders. A summer 2011 letting is anticipated.

- A project on Route 31 from Route 11 to Lakeshore Road in Cicero (to be let 2015/2016) will include measures to address left turn/head-on accidents at the I-81 interchange and left turn/head-on and right angle accidents at adjacent commercial driveways. This project will likely be combined at Plans, Specifications, and Estimates (PS & E) with a comprehensive safety project to replace the interchange with either a diverging diamond (DDI) or a single point urban interchange (SPUI) to address operational/capacity related issues.

- A project on I-81 between Church Street and South Bay Road in Cicero installed continuous median barrier or guide railing to address crossover accidents. This project has been completed.

- A project on I-81 from the Northern Lights bridge to just north of the Route 31 overpass - 1R resurfacing will add Milled in Audible Roadway Delineators (MIARDS) in shoulder,
replace damaged signs and guiderail, and address roadside clear zone issues. This project is in design.

- A project on Route 11 at East Circle Drive in Cicero (6/08) included measures to reduce the skew angle of the westbound right turn ramp to Route 11. This project has been completed.

- A project on I-690 westbound at the Thruway Interchange (let 6/07) in Van Buren installed high-tech LED pavement markings. This project has been completed.

- A project on Bridge Street (Route 930P) at the I-690 interchange in East Syracuse will install a double left turn lane on Bridge Street for traffic turning left onto I-690 westbound, and will reduce the skew angle of the ramp for traffic turning right onto I-690 westbound. It will provide signalized control of the 930P southbound double right turn lanes to I690 westbound to address both capacity and rear end type accidents. This project is anticipated to be let in 2011.

- A project in the Village of East Syracuse (let 2/07) realigned the right turn ramps at the Bridge Street (Routes 290 and 930P) intersection with Manlius Center Road (Route 290) to reduce the skew angles and bring the ramps under signalized control. This project has been completed.

- The Route 173/175 Onondaga Hill Project realigned the Makyes Road and Velasko Road intersections into one signalized intersection, improved channelization and operations along the 173/175 overlap section, and provided a new driveway for Van Duyn Hospital.

- The Route 31/Mud Creek bridge project widened Route 31 to a five-lane section from the Great Northern Mall east driveway through Morgan Road.

- The I-81 Interchange at Route 49 project is needed to address capacity related issues associated with both the northbound I-81 off ramp to Route 49 and Route 49 westbound on ramp to I-81 southbound.

- At Route 298, Court Street/New Venture Drive, a new signal installation under 2007-08 Signal Requirements project was completed that added protected/permissive phasing for the northbound left turn lane onto Court Street to coincide with the existing southbound left to New Venture Drive.

2. The NYSDOT has completed safety projects at the following locations:

- A $20+ million project was completed December 2008 that replaced the eastbound and westbound bridges over the CSX mainline just east of the New York State Fairgrounds.
Also included were profile improvements to I-690.

- The Route 92 from the City line to Erie Boulevard $6 million project included improvements to drainage, pedestrian and multimodal systems, and access management principles. This project was completed February 2009.

- A $15 million project reconstructed Route 370 from the Cayuga County Line to NY 690, just west of the Village of Baldwinsville. Also included were changes to the horizontal and vertical alignment of the highway. This project was completed December 2008.

- Route 174 in Marcellus, from the central business district to the northern village line, was reconstructed in December 2008 and included bridge deck replacement, new sidewalks, improved drainage, and guiderail installation for $4.9 million.

- Completed in April 2009, a $1.35 million project combined paving operations on NY 290 in the Village of East Syracuse, paving on Route 930W (Genesee Street) in Camillus, and sight distance improvements on Route 11 at Circle Drive.

3. Recent or upcoming NYSDOT improvements for the ten highest vehicular accident locations on State-owned roads include:

- Route 11, Northern Concourse/South Bay Road Spur/Route 11 to Bailey Road project. HSI completed in 2010 recommending signal re-timing/coordination to provide protected only left turn phasing at 11 NB at Bailey Road. A project (completed in 1999) Sand Road to South Bay Road included channelization and lane reallocation improvements at the I-81 northbound exit at Route 11 northbound/Northern Lights Plaza; Route 11 northbound and South Bay Road northbound split; Route 11 northbound at South Bay Road southbound; Route 11 southbound at South Bay Road southbound and Northern Concourse.

- Route 298 at Carrier Circle - The Route 298 3R project (completed in 1993) channelized and reduced the approach/merge skew angle of the Route 298 eastbound approach to Carrier Circle. The Route 298 eastbound approach to Carrier Circle was realigned and channelized (in 2003) to reduce rear end and sideswipe type crashes. Additionally realignment of the T-way approach and North Thompson Road approach/merges are needed to steepen the skew angle to address patterns of rear end crashes along both approaches under a future capital project.

- Route 930C Adams Street Arterial (South Clinton Street to Almond Street) signal replacement/re-timing at South Salina Street (Centro Permit) and Almond Street with new mast arm signal.

- Route 11, Bear Road to East Circle Drive - Signal requirements project (2006) Bear
Road/930J - placed a new three-colored signal at the Route 481/930J ramps with a signal coordination closed loop system with Route11/Bear Road signal to address heavy peak hour left turn movements. This project has been completed.

- Route 11, Bear Road to East Circle Drive - A protected-only left turn phase was installed for Route 11 southbound traffic turning onto East Circle Drive. A project on Route 11 at East Circle Drive in Cicero (let 6/08) included measures to reduce the skew angle of the westbound right turn ramp to Route 11. This project has been completed.

- Route 31, Crabtree Drive to Lakeshore Road - A project on Route 31 from Route 11 to Lakeshore Road in Cicero (to be let in 2016) will include measures to address left turn/head-on accidents at the I-81 interchange and left turn/head-on and right angle accidents at adjacent commercial driveways. Comprehensive, long-term alternatives to reduce accidents and heavy congestion along the corridor are also being explored with consideration given to full replacement of the interchange using a diverging diamond or single point urban interchange. This project is currently in design.

- I-81, I-690/Salina Street to Park Street - 1R resurfacing addressed pavement, sign, guiderail, and roadside clear zone issues along I-81 from the I-690 interchange to Park Street Bridge. This project has been completed.

4. The NYSDOT funds safety improvements through the capital program update process. Qualifying improvements (those which can achieve a benefit/cost ratio of 5.0 or higher) are suggested for addition to the capital program through the following methods:

- Safety Capital Projects, which are stand-alone projects, are programmed for the purpose of eliminating a safety deficiency and/or reducing accident frequency and severity.

- Safety Enhancements, which are safety improvement components, are added to a paving or infrastructure improvement project to reduce accidents and severity at high accident locations and cluster locations.

5. The NYSDOT has developed a Safety Information Management System (SIMS) that provides accident record information on State and local highways and streets.

6. The NYSDOT is currently pursuing a program to produce a comprehensive statistical and Geographic Information Systems (GIS) - based report on pedestrian and bicycle crash data.

7. The NYSDOT has eliminated a rail grade crossing at Poolsbrook Road in the Town of Manlius.

8. The NYSDOT has developed a community outreach program presentation that is used during development of the capital program for obtaining local government and citizen input during the planning process. The outreach program is used to identify and address accident problems, as well as current and anticipated safety needs.
9. The NYSDOT is implementing the guidelines contained in the brochures *Best Practices in Arterial Management* and *An Information Guide to the Highway Work Permit Process* in order to enhance safety.

10. The NYSDOT, through the Highway Work Permit process, requires developers of major commercial and residential developments to include any necessary mitigating measures, such as turning lanes and traffic signals to the state highway system, to maintain safe operating conditions.

11. The NYSDOT, in conjunction with the New York State Police, establishes locations on the state highway system to be used in the annual Targeted Enforcement campaign. The campaign is aimed at addressing the problem of aggressive motorist behavior.

12. The NYSDOT conducts annual Safety Appurtenance (SAFETAP) reviews of sections of state highways scheduled for preventative maintenance paving projects. The program consists of roadside safety audits that identify and will ultimately address roadside clear zone issues.

13. The NYSDOT continues to stress safety in highway work zones. This is accomplished through the Department’s ongoing Work Zone Safety Initiative, by advocating Work Zone Legislation, and through the use of driver information and enforcement techniques.

14. The NYSDOT upgrades safety appurtenances through the capital program. Signing improvements, pavement marking modifications, guide rail upgrades, and signal system improvements are undertaken annually to meet the safety needs of drivers, pedestrians, and bicyclists.

15. The NYSDOT has developed a Strategic Highway Safety Plan (SHSP) to identify the State’s key safety needs and guide investment decisions to achieve significant reductions in highway fatalities and serious injuries on all public roads. This statewide document was developed in a cooperative process and includes input from public and private safety stakeholders.

16. The Region 3 Traffic Management Center (TMC) opened in October 2004. The TMC is open 24/7, 365 days a year and is a central resource for traffic operation needs for NYSDOT Region 3. Intelligent Transportation Systems (ITS) such as the Freeway Incident Management System projects continue to be designed and constructed on the interstate systems within the Syracuse urban area. These projects consist of roadside cameras, dynamic message signs, and vehicle speed detectors, and allow the real time operation of the interstate system from the TMC. Currently, 19 cameras, 12 permanent dynamic message signs and 14 vehicle detector stations are installed or under construction along I-81 and I-690. Additionally, design is underway to implement similar equipment on I-481, enhancing the overall ability to manage traffic and incidents.

17. The Central New York Regional Transportation Authority (CNYRTA) has a System Safety Plan that is updated every 24 months covering internal and external operations.

18. The CNYRTA uses a system for tracking and categorizing transit accidents using the NYS Public Transportation Safety Board process as a template.
19. The CNYRTA has an extensive training program for all new transit operators and periodically does refresher training for existing personnel. In addition, CNYRTA has acquired a computerized training simulator, which is expected to significantly enhance the Authority’s training program.

20. The CNYRTA has acquired land and is in the design process to move its Transit Hub in the City of Syracuse to an alternate weather-protected location where buses can load and transfers may be made out of the general traffic flow. This project will be completed in winter 2011/2012.

21. Centro has completed several ITS projects; including Automated Vehicle Locator (AVL), Automated Passenger Counter (APC) systems and a modern, more efficient radio communications system. These technologies enable Centro to complete its mission with greater efficiency. Centro has committed to completion of a number of other ITS technologies and replacement of aging equipment for those in place will be an issue in the near future.

22. The Onondaga County Department of Transportation (OCDOT) has implemented the following safety action plans:

- The Kirkville Road / Fremont Road Intersection Project (1998 completion) added dedicated turn lanes on all approaches, channelization improvements, signing improvements and upgraded signalization to improve an intersection with a accident rate well above the State Mean Accident Rate.

- The Kirkville Road / Fly Road Intersection Project (2002 completion) added dedicated turn lanes on all approaches, channelization improvements, signing improvements, and upgraded signalization to improve an intersection with an accident rate well above the State Mean Accident Rate. Additional left turn lanes southbound and a right turn lane westbound were added to improve mobility through the intersection during New Venture Gear rush hours.

- The Northern Blvd. / Taft Road Intersection Project (2003 Completion) added dedicated turn lanes on all approaches, channelization improvements, signing improvements, and upgraded signalization to improve an intersection with a accident rate well above the State Mean Accident Rate. Slip ramps from Northern Blvd southbound onto Taft Road westbound and Taft Road eastbound onto Northern Blvd southbound were replaced with 90-degree turn lanes at the signal to eliminate an unusually high rear end accident problem.

- The Taft Road / Allen Road Intersection Project (2003 completion) added a dedicated turn lane on the eastbound approach, channelization improvements, signing improvements and upgraded signalization to improve an intersection with a accident rate well above the State Mean Accident Rate.

- The Salt Springs Road / North Eagle Village Road Intersection Project (2004 completion) realigned Salt Springs Road to intersect North Eagle Village Road at a desirable angle and signing improvements to improve an intersection with an accident rate well above the State Mean Accident Rate.
The Intersections of Henry Clay Blvd. at Buckley Road and Wetzel Road (2005 completion) added dedicated turn lanes on all approaches of both intersections, channelization improvements, signing improvements, and upgraded signalization to improve a corridor with an accident rate well above the State Mean Accident Rate. Additional lanes between the intersections were added to improve mobility through the area during peak hours.

The Soule Road / North Pinegate Road Intersection Project (2006 construction) added a new actuated three-color traffic signal, dedicated left turn lanes on Soule Road, and signing improvements to improve an intersection with an accident rate well above the State Mean Accident Rate.

The Grand Avenue (Fay Road) Phase I Reconstruction Project (2005 completion) reconfigured the Fay Road/Onondaga Boulevard/Terry Road Intersection. Dedicated left turn lanes were added on Fay Road and additional turn lanes were added on Onondaga Boulevard to improve safety and capacity.

The Grand Avenue (Fay Road) Phase II Reconstruction Project (2006 letting) will reconfigure the Fay Road/Grand Avenue Intersection. Fay Road will be realigned to meet Sheraton Road. Left turn lanes will be added both on Fay Road and Grand Avenue to improve safety and capacity.

Taft Settlement Road Part II (East Taft Road), South Bay Road to Northern Boulevard Project (2007 letting) will address a deteriorating pavement and an accident rate which exceeds the statewide average for this type of facility. The preliminary scope of the project includes a two-course asphalt overlay through the entire project area and the addition of a two-way left turn lane from South Bay Road to the Church Road Intersection. A new actuated three-color traffic signal, dedicated left turn lanes on East Taft Road and signing improvements will be installed to improve an intersection with an accident rate well above the State Mean Accident Rate.

The Velasko Road project (2007 letting) was initiated to address a deteriorating pavement and an accident rate which exceeds the statewide average for this type of facility. The project included a two-course asphalt overlay through the entire project area and the enclosure of existing deep open ditches. Further studies will be done to determine the need to propose possible improvements at the McDonald Road intersection.

Factory Avenue, C.R. No. 93 at Salina - DeWitt Townline Road, C.R. No. 70 (Townline Road) intersection project replaced the existing slip ramp from Factory Avenue to Southbound Townline Road with a dedicated right turn lane to improve signal efficiency and to improve an intersection with an accident rate well above the State Mean Accident Rate.

23. The City of Syracuse has implemented the following safety action plans:
• Traffic Signal Light Emitting Diode (LED) Lighting Initiative – The City replaced all of their traffic signal lights with LEDs including yellow lights. This will increase pedestrian and vehicular safety. The LEDs emit a brighter light, have a longer life span, and save energy.

• Adams Street/Comstock Avenue Signal Improvements – Signals were added at Adams/Comstock and at Adams/Walnut. These signals are interconnected so that a vehicle starting up the hill will make it through the intersection on the hill without having to stop on the hill. The traffic signal at Adams/Comstock replaces stop signs on Comstock, making the intersection safer.

• Upgraded Signal Indication Study – The City is completing a study of all signal indications to determine what signals are warranted. Signals that are not warranted will be eliminated. If signals are warranted, the signals will be upgraded to dual indication. The study should be completed by the end of 2007. All unwarranted signals will be deactivated after the study is completed and signal upgrades will be initiated.

24. The SMTC participated in the National Highway Institute Safety Conscious Planning Course, as well as in a statewide Shared Cost Initiative that will include the development of a standardized safety audit priority list, and development of statewide accident rates for non-state highways.