

CHAPTER 5 – BICYCLE AND PEDESTRIAN ISSUES

5.1 Introduction

Through the course of completing the existing conditions inventory documented in Chapters 1-4, the public involvement process, and comments received throughout the course of this study, a number of bicycle and pedestrian transportation issues were identified.

This chapter will focus on the primary bicycle and pedestrian issues identified within the study area. The first section discusses broad regional issues that relate to walking and bicycling. Pedestrian Issues, Bicycle Issues, Greenway/Trail, and Transit issues are then discussed in the following sections. Issues relating to motorists are discussed within the Pedestrian and Bicycle Issues sections. It is important to note that all of the issues outlined in this chapter are primarily broad-based concerns that affect more than one or two areas within the Syracuse Metropolitan Transportation Council (SMTC) Metropolitan Planning Organization (MPO) study area. Specific issues noted by the public are documented in Appendix A.

5.2 Regional Issues

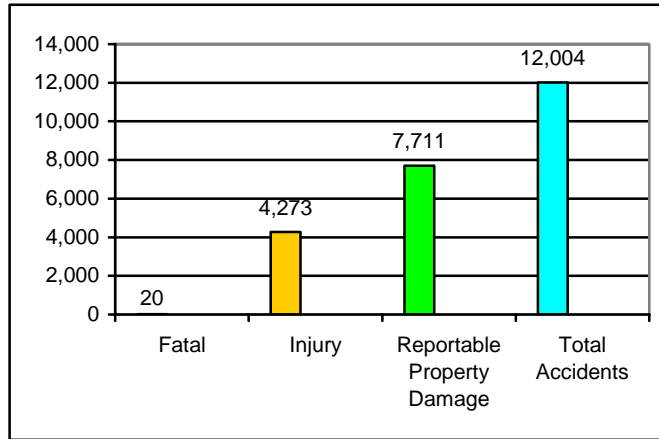
This section outlines regional issues that affect pedestrian and bicycle travel within the SMTC MPO area. Each of the regional issues is briefly described below. In the sections following this chapter, the Pedestrian, Bicycle, Greenway/Trail and Transit issues are shown in matrix format to illustrate their relationship with the regional issues.

5.2.1 Safety

In the SMTC region, pedestrian and bicycle fatalities represent almost 25% of all traffic fatalities and approximately 7% of all traffic related injuries. These statistics represent a significant share of traffic crashes, as well as significant costs to the region's citizens.

In Onondaga County in 2000, there were 20 fatal motor vehicle accidents in which 21 people were killed. Five (5) of the 21 were pedestrians, representing nearly 25% of those killed in motor vehicle accidents in 2000. There were no reported bicyclists killed in motor vehicle accidents in 2000 in Onondaga County. See Figure 5.2.1-1.

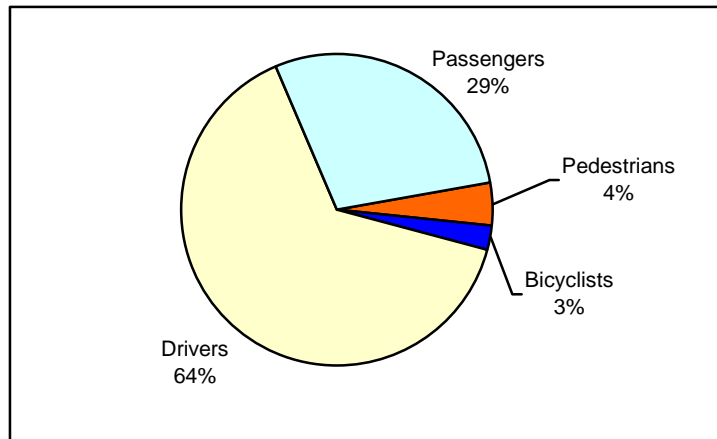
**Figure 5.2.1-1
Number of Motor Vehicle Accidents by Type
Onondaga County, 2000**



Source: NYS DMV Form 144A (Police Reported)

In Onondaga County in 2000, approximately 4% of individuals injured in a motor vehicle accident were pedestrians, while approximately 3% were bicyclists (see Figure 5.2.1-2).

**Figure 5.2.1-2
Percent of Persons Injured in Motor Vehicle Accidents
Onondaga County, 2000**



Source: NYS DMV Form 144A (Police Reported)

Although the percentages of bicycle and pedestrian injuries are small when compared to the percentage of drivers and passengers injured in motor vehicle accidents, the decline in the number of people walking and bicycling could be a probable cause.

Onondaga County has experienced a decrease in people walking to work by approximately 27% since 1990 (See Figure 5.2.3-1 in the Mobility section). This decrease could be attributed to several factors or a combination of factors, such as a decrease in the MPO's population over the past decade, the condition of pedestrian facilities, perceived safety, weather, and alternative mode choices. And while the numbers of Onondaga County pedestrians that walk to work has decreased over the past decade, the numbers of people bicycling to work has increased. The percentage of those bicycling to work has shown a nearly 25% increase, however, this is not statistically significant, as the total number of people bicycling to work only increased by 97 people since 1990. This small increase could be attributed to several factors, or a combination of factors, including the weather. A good weather day could have influenced the number of persons who biked to work on the day that census data was collected in Onondaga County.

5.2.2 Health

One topic not typically considered in the majority of transportation studies is that of the health benefits of a particular mode. In the case of bicycling and walking, there is a direct correlation between the utilization of those modes and a positive impact on health. One of the benefits of walking and bicycling is exercise, a key factor in helping to keep disease and illness at bay.

As a society, we are currently experiencing a national epidemic of obesity and heart disease. According to the Behavioral Risk Factor Survey Results report prepared by the Onondaga County Health Department's Bureau of Surveillance and Statistics, this "national epidemic of overweight and obesity extends to Onondaga County, with more than half (56%) of all survey respondent⁷⁵ being overweight or obese. The prevalence of overweight (persons) in Onondaga County is the same as in New York State and the United States, and it exceeds the Healthy People⁷⁶ target by 40%."⁷⁷

The National Center for Bicycling and Walking developed a guide for public health practitioners in which it is noted that "physical inactivity and obesity rank second to smoking in their contribution to total mortality in the United States. Nearly 80 percent of obese adults have diabetes, high blood cholesterol levels, high blood pressure, coronary artery disease or other ailments."⁷⁸

In New York State, 37% of fatalities are caused by some form of heart disease; more than AIDS, Cancer and Stroke combined (which account for 30% of New York State deaths). See Figure 5.2.2-1.

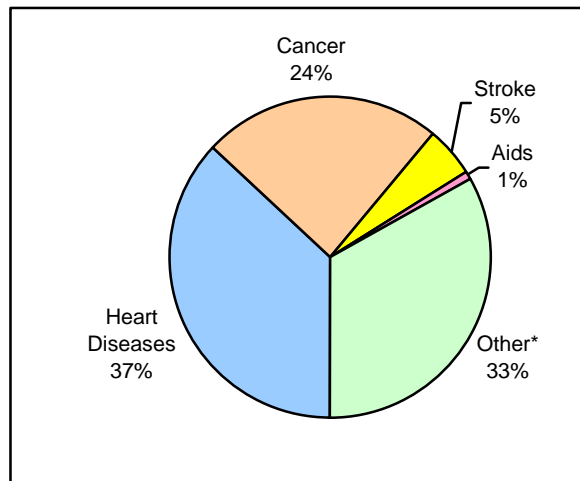
⁷⁵ Onondaga County Health Department – Bureau of Surveillance and Statistics, *Behavioral Risk Factor Survey Results Onondaga County, New York June-July 2002*, April 2003.

⁷⁶ Healthy People 2010 is a statement of national health objectives for the Nation to achieve over the first decade of the new century. It is designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. Healthy People 2010 builds on initiatives pursued over the past two decades.

⁷⁷ Onondaga County Health Department – Bureau of Surveillance and Statistics, *Behavioral Risk Factor Survey Results Onondaga County, New York June-July 2002*, April 2003, p. 3.

⁷⁸ W.C. Wilkinson, N. Eddy, G. MacFadden, and B. Burgess, National Center for Bicycling and Walking, *Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners*, National Center for Bicycling and Walking, May 2002, p. 2.

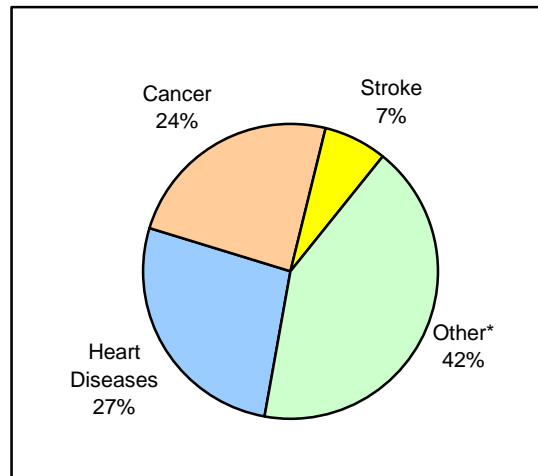
**Figure 5.2.2-1
Selected Causes of Death
New York State, 2000**



*Includes: accidents, cirrhosis, CLRD, diabetes, homicides and pneumonia
Source: New York State Department of Health 2000 Vital Statistics

In Onondaga County, 27% of fatalities are caused by some form of heart disease, nearly as many fatalities that are caused by AIDS, Cancer and Stroke combined (which account for 31% of deaths in Onondaga County). See Figure 5.2.2-2.

**Figure 5.2.2-2
Selected Causes of Death
Onondaga County, 2000**



*Includes: AIDS, accidents, cirrhosis, CLRD, diabetes, homicides and pneumonia
Source: New York State Department of Health 2000 Vital Statistics

Taking part in moderate physical activity, such as bicycling or walking, most days of the week has been acknowledged for quite some time to be an important component in maintaining a healthy lifestyle. The simple fact is that “exercise reduces the incidence of a myriad of illnesses,

including heart disease, diabetes, colon cancer, high blood pressure and obesity.”⁷⁹ And it is becoming widely recognized that a lack of physical inactivity can be caused by the inability for people to walk and bike as part of their daily routine. “We don’t walk or bicycle as much as we used to, partly because our communities – designed around the automobile – lack walkways and bikeways that would otherwise accommodate and encourage such activity.”⁸⁰

In addition, the number of children who bike or walk to school has significantly declined over the last twenty to thirty years. “Thirty years ago over 66% of all school aged children walked to school. Today, 13% of America’s children walk or bike to school.”⁸¹ This reduction can be attributed to a several factors, most notably suburban sprawl and the dependence on the automobile.

5.2.3 Mobility

A balanced system that includes transit, walking, bicycling and automobiles provides people with appropriate transportation choices.⁸²

The 2000 Census shows a significant decline in combined walking and bicycling for the SMTC region (see Figure 5.2.3-1).⁸³ Transit ridership follows a similar trend, and driving a single occupant motor vehicle remains the primary travel choice. It is also interesting to note that besides an increase in bicycling, the only category to show major gains in mode share was people working at home (an increase of 12.88%), including telecommuters.

⁷⁹ Rails-to-Trails Conservancy, *Health Fact Sheet*, 2/4/04

<<http://www.trailsandgreenways.org/resources/benefits/topics/health.asp>> (2004), p.2.


⁸⁰ W.C. Wilkinson, N. Eddy, G. MacFadden, and B. Burgess, National Center for Bicycling and Walking, *Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners*, National Center for Bicycling and Walking, May 2002, p. 3.

⁸¹ Safe Routes to Schools <<http://www.saferoutestoschools.org/about.html>> (3/26/2004) Data as provided by the US Centers for Disease Control and Prevention.

⁸² W.C. Wilkinson, N. Eddy, G. MacFadden, and B. Burgess, National Center for Bicycling and Walking, *Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners*, National Center for Bicycling and Walking, May 2002, p. 5.

⁸³ When examined in further detail, the Census reports a decline in the number of people walking to work, and an increase in the number of people bicycling to work. The percentage of those bicycling to work shows a nearly 25% increase, however, the actual numbers are so small (97 people) that it is not statistically significant.

Figure 5.2.3-1

|  | Onondaga County Journey To Work Statistics, 1990-2000 | | |
|---|---|-------------|----------|
| | Onondaga County | | |
| | 1990 Census | 2000 Census | % Change |
| Workers (Ages 16 and Over) | 223,650 | 211,646 | -5.37% |
| Drove alone | 168,206 | 169,433 | 0.73% |
| Carpooled | 27,040 | 20,873 | -22.81% |
| Public Transportation (including taxi) | 10,037 | 5,560 | -44.60% |
| Bicycle or Walked | 11,757 | 8,749 | -25.6% |
| Walked | 11,367 | 8,262 | -27.32% |
| Bicycled | 390 | 487 | 24.87% |
| Worked at Home | 5,295 | 5,977 | 12.88% |
| Motorcycled or Other | 1,315 | 1,054 | -19.85% |

Source: CTPP, US Census Bureau, 2000

Creating walkable communities can benefit the region if people working at home are able to walk or bicycle to destinations during the workday within their neighborhoods. In addition, the Census data only counts trips to work, and a significant amount of walking and bicycling is for other purposes, including going to school, shopping, recreation and other purposes. For children, seniors and others who do not have access to a car, walking and bicycling are primary travel choices.

According to a New York State fact sheet prepared by the Surface Transportation Policy Project (STPP), 35% of all trips under a half-mile are made in a vehicle in New York State. In addition, only 6.2% of commutes in New York State are completed on foot.⁸⁴

A national survey conducted by the STPP on attitudes toward walking finds that “the American public wants to walk more places more often, and is willing to invest in making it possible. According to the STPP, poll results show that if given a choice between walking more and driving more, 55 percent of adults choose walking more.”⁸⁵

5.2.4 Environment

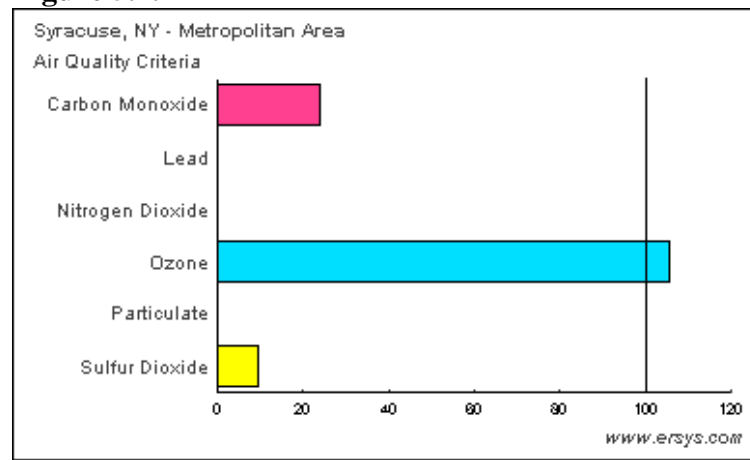
The SMTC region is a Carbon Monoxide maintenance area under the provisions of the Clean Air Act. Encouraging more trips by bicycling and walking can assist in improving air quality. Providing balanced transportation choices not only helps reduce the share of air and noise pollution attributed to transportation, but it can also provide citizens with a sense of “being part of the solution.” The following chart (see Figure 5.2.4-1) shows the ranking of the five major air pollutants monitored by the EPA. The chart shows the quantity of pollutant as a percentage to the

⁸⁴ Surface Transportation Policy Project, *Walking in New York*, 12/16/03, < <http://www.transact.org/report.asp?id=205>> (2003).

⁸⁵ Surface Transportation Policy Project, *Americans' Attitudes Toward Walking and Creating Better Walking Communities* 12/16/03, < <http://www.transact.org/report.asp?id=205>> (4/1/2003).

minimum allowed (before it is considered a serious health risk) by the EPA. It is interesting to note that in the majority of cases, Ozone is the major pollutant facing most cities.⁸⁶

Figure 5.2.4-1



*“A short 4-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air we breathe.”
(World Watch Institute)*

Sources: EPA - Air Quality Trends 2001; <http://www.ersys.com/usa/36/3673000/air.htm>

Children and the elderly are particularly sensitive to the harmful affects of air pollution, as are individuals with heart or other respiratory illnesses. In particular, ozone can cause “breathing difficulties, lung tissue damage, coughing and chest pains,” and carbon monoxide can cause “chest pain in heart patients, headaches, and reduced mental alertness.”⁸⁷ If more people in the Greater Syracuse Metropolitan area walk and bicycle more often, this may assist in improving air quality and its harmful health effects.

In the fall of 2003, Governor Pataki announced a new statewide program titled, the Clean Air School Bus Program, which is projected to improve the air quality of New York State’s school aged children, and ultimately all state residents through the reduction of diesel bus emissions. “The Clean Air School Bus Program represents an important investment in New York’s future. We will continue to do everything possible to eliminate the dangerous effects of diesel-related emissions that can harm the health of our children and our environment.”⁸⁸ The program will allocate nearly \$5 million to 74 school districts across the state. School districts that are located solely in Onondaga County are slated to receive approximately \$463,600.00 or 9% of the entire program funding to retrofit 240 school buses.

Protecting parks and open space is another way in which to improve air quality. “Park resources can mitigate climate, air, and water pollution impacts on public health.”⁸⁹ As of 2002, the City of Syracuse has approximately 80 parks and community centers accessible for public use, while the remainder of Onondaga County has a total of 13 state or county owned parks. There are also 55 parks under town/village ownership throughout Onondaga County. Besides parks, Onondaga

⁸⁶ Ersys.com, *Air Quality*, 2/6/04, <<http://www.ersys.com/usa/36/3673000/air.htm>> (2000-2001).

⁸⁷ San Luis Obispo County Air Pollution Control District, *Air Quality and Your Health*, 2/6/04, <<http://www.slocleanair.org/air/aq-health.asp>> (2004).

⁸⁸ Governor Announces Clean Air Initiative For School Buses, 9/17/2004, <http://www.state.ny.us/governor/press/year03/sept17_1_03.htm> (3/12/2004).

⁸⁹ Howard Frumkin, M.D., and Mary E. Eysenbach, American Planning Association, *How Cities Use Parks to Improve Public Health*, 2/6/04, <<http://www.planning.org/cpf/pdf/improvepublichealth.pdf>> (2003), p.3.

County also has several areas preserved as open space, such as the Cicero Swamp State Wildlife Management Area, Camillus Forest, Labrador Hollow State Unique Area, and Morgan Hill State Forest, to name a few.

In addition to air quality, improving upon the water quality in the SMTC region is also of significant importance to Onondaga County's environment. Onondaga County and the NYS Department of Environmental Conservation (DEC) have implemented a remediation plan for cleaning up Onondaga Lake. Through funding made available from the NYS Clean Water/Clean Air Bond Act, the remediation plan is projected to improve water quality for the lake's aquatic ecosystem that was damaged from years of industrial pollutants discarded into the lake.

5.2.5 Economy

Economic development in upstate New York is an important issue. In the information/service economy, knowledge based workers and employers can choose to locate and stay in regions that provide high-quality amenities. Pedestrian and bicycle facilities are among these amenities, as evidenced in successful regions including Seattle, Portland and Austin. Such facilities, including trails and greenways, "can increase perceived quality of life in a community, and consequently attract new businesses. Many companies seeking to relocate or establish a corporate headquarters have cited the availability of trails as a significant factor in their decision to choose one locale over another."⁹⁰

In addition, "countless communities across America have experienced an economic revitalization due in whole or in part to trails and greenways. Trails and greenway systems have become the central focus of tourist activities in some communities and the impetus for kick-starting a stagnating economy,"⁹¹ as noted in the following example.

- According to a 1998 study, the direct economic impact of the Great Allegheny Passage exceeded \$14 million a year – even though the trail was only half finished at that time. In Confluence, Pennsylvania, one of the project's first trailhead towns, the trail has encouraged the development of several new businesses and a rise in real estate values.⁹²

Pedestrian and bicycle amenities, including trails and greenways can also increase the natural surroundings and beauty of communities. "They also have been shown to bolster property values and make adjacent properties easier to sell."⁹³ The following examples highlight this concept:

- In a 2002 survey of recent home buyers sponsored by the National Association of Realtors and the National Association of Home Builders,

⁹⁰ Howard Frumkin, M.D., and Mary E. Eysenbach, American Planning Association, *How Cities Use Parks to Improve Public Health*, 2/6/04, <<http://www.planning.org/cpf/pdf/improvepublichealth.pdf>> (2003), p.3.

⁹¹ Ibid, p.2.

⁹² Rails to Trails Conservancy, *Economic Benefits of Trails and Greenways (Fact Sheet)*, 2/4/2004, <<http://www.trailsandgreenways.org/resources/benefits/topics/econrev.asp>> (2004), p.2.

⁹³ Ibid, p.3.

trail ranked as the second most important community amenity out of a list of 18 choices.⁹⁴

- Realizing the selling power of greenways, developers of the Shepard's Vineyard housing development in Apex, North Carolina added \$5,000 to the price of 40 homes adjacent to the regional greenway. Those homes were still the first to sell.⁹⁵

In addition, bicycle and pedestrian based tourism can benefit the SMTC region. The Erie Canalway Trail, the Onondaga Creekwalk, and the Loop the Lake Trail are the types of facilities that can play an important role in regional economic development. Throughout the country, bicycle and pedestrian tourists are making considerable contributions to local economies. "In some locations, the contribution made by these non-motorized tourists can be as much as tourists using motor vehicles. Studies show that where bicycle and pedestrian tourism is fostered and promoted, and where investments are made in bicycle and pedestrian facilities, the economic impact may be even greater. A thriving tourist industry, in turn, can attract and revitalize businesses, create jobs, and increase public revenue."⁹⁶

The development, upkeep, and promotion of bicycle and pedestrian facilities can create a positive image in a community as well as a perceived increase in quality of life. These in turn have an effect on the local economy. Well-connected and established bicycle facilities may encourage others to move to the SMTC MPO area and may encourage developers to locate their businesses here.

5.2.6. Quality of Life

One's personal satisfaction with the community they choose to live in and the general conditions under which they live represents their "quality of life."

Improving the "conditions for bicycling and walking have intangible benefits to the quality of life in cities and towns. In a growing number of communities, bicycling and walking are considered as indicators of a community's livability – a factor that has a profound impact on attracting businesses and workers as well as tourism. In cities and towns where people can regularly be seen out bicycling and walking, there is a palpable sense that these are safe and friendly places to live and visit."⁹⁷

A Vision Fair sponsored by the non-profit group, Forging Our Community's United Strength (FOCUS) Greater Syracuse, was held in Syracuse in 1998 where approximately 4,000 people voted to determine the best ways to improve Central New York. Voters "chose the construction

⁹⁴ Rails to Trails Conservancy, *Economic Benefits of Trails and Greenways (Fact Sheet)*, 2/4/2004, <<http://www.trailsandgreenways.org/resources/benefits/topics/econrev.asp>> (2004), p.2.

⁹⁵ Ibid.

⁹⁶ National Center for Bicycling and Walking, *The Economic Benefits of Bicycle- and Pedestrian-based Tourism, and the Economic Impacts of Trail Development*, 2/5/2004, <http://www.bikewalk.org/assets/Reports/economic_impact.htm>

⁹⁷ Pedestrian and Bicycle Information Center, *Benefits of Walking: Quality of Life Benefits*, 12/18/03, <<http://www.walkinginfo.org/pp/benefits/qualben/index.htm>> (2000).

of bicycle paths and hiking trails as their top priority for making the community a better place to live.”⁹⁸ Onondaga County’s parks and recreation commissioner noted, “It fits into people’s idea’s for health and fitness. It gives them a sense of community.”⁹⁹

Because each of the issues presented in this chapter can play a role in affecting one’s quality of life, this regional issue is not included in the matrices that follow.

⁹⁸ Rick Moriarty, Herald-Journal Metro, *Bike Paths Picked as Best Way to Help CNY*, May 5, 1998, p.G-2.

⁹⁹ Ibid.

5.3 Pedestrian Issues

This portion of Chapter 5 focuses on pedestrian transportation issues discovered throughout the development of this Bicycle and Pedestrian Plan. The issues are noted through six major categories: Engineering, Education, Enforcement, Encouragement, Economic Development and Other.

The individual pedestrian issues are tied to the regional issues in matrix format. It is important to note that the regional issues that are checked off within each matrix are somewhat subjective. For the most part, several of the individual issues could be tied to each of the regional issue categories. However, for the purpose of this analysis, the majority emphases of each particular issue are checked off (please note though, that because each of the issues presented in this chapter could affect one's quality of life, this regional issue is not included in the matrices that follow).

5.3.1 Engineering Issues

This section primarily outlines the physical facility issues, concerns and conditions associated with pedestrian travel within the MPO area. The issues are noted via a matrix through several categories that fall under the engineering heading. The matrix categories include: sidewalk/walkway related, street crossing related (ramps, crosswalks, signals), maintenance related, and access related. See Figure 5.3.1-1 for the pedestrian engineering matrix.



Poor sidewalk conditions can hinder pedestrian mobility.

Figure 5.3.1-1

| PEDESTRIAN ENGINEERING ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| <i>Sidewalk/Walkway Related</i> | | | | | |
| - Lack of sidewalks throughout MPO, especially in suburbs and on main thoroughfares. | x | | x | | x |
| - Perceived personal safety issues because of a lack of sidewalks. | x | | | | |
| - Paving over of sidewalk for driveways interrupts the pedestrian path. | x | | x | | |
| - Lack of separation between sidewalk and road in some places (photo example - Route 5 Wegman's in DeWitt). | x | | x | | |
| - Non-compliance with ADA (curb cuts, ramps, and improper sidewalk surfaces). | x | | x | | |
| - Lack of signage to make drivers aware of pedestrians. | x | | | | |
| - Lack of adequate pedestrian-level lighting . | x | | | | |
| - Lack of paved shoulders where no sidewalk exists. | x | | x | | |
| - Inconsistent shoulder widths, sidewalk widths, markings and signage. | x | | x | | |
| - Most zoning codes do not mandate sidewalks. | x | | | | |
| - Pedestrian facilities need to be constructed throughout the City of Syracuse and Onondaga County to improve quality of life. | x | | x | | |
| <i>Street Crossing Related</i> | | | | | |
| - Lack of pedestrian crossing facilities (pedestrian signals, crosswalks). | x | | x | | |
| - Lack of pedestrian connection (bridges) over high traffic volume roads. | x | | x | | |
| - There is not sufficient signage installed to indicate pedestrian laws. | x | | | | |
| - Not enough time for pedestrians to cross where pedestrian signals exist | x | | | | |
| - Worn-away "zebra" stripes at crosswalks make it difficult to distinguish pedestrian path. | x | | | | |
| - ADA ramps are not always symmetrical in crosswalks, possibly sending wheelchair users into the middle of an intersection. | x | | | | |
| <i>Maintenance Related</i> | | | | | |
| - Winter sidewalk snow/ice removal (lack of and/or poor maintenance; snow banks piled high from plowing; meters covered with snow cannot be reached; commercial sites often use sidewalks for storage). | x | | x | | x |
| - Poorly maintained sidewalks (cracks, upheavals, stones, dirt, debris, overgrown vegetation, etc.). | x | | x | | |
| - Limited municipal budgets available for public sidewalk maintenance. | x | | x | | |
| - Reliance on adjoining property owners to maintain public sidewalks and right-of-way. | x | | x | | |
| - Water ponds and ice forms at the bottom of some curb ramps. | x | | x | | |

Figure 5.3.1-1

| PEDESTRIAN ENGINEERING ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| <i>Access Related</i> | | | | | |
| - Lack of continuity in pedestrian accesses (sidewalks, crosswalks, pedestrian signals). | x | | x | | |
| - Lack of pedestrian access to transit stops. | x | | x | | |
| - Interstates serve as barriers to pedestrian movement. | | | x | | |
| - Wheelchair-users utilizing roads because of a lack of safe and/or clear sidewalks. | x | | x | | |
| - Non-compliance with ADA (curb cuts, ramps, and improper sidewalk surfaces). | x | | x | | |
| - Lack of pedestrian access/sidewalks leading to major destinations, such as shopping centers, malls, and plazas. | x | | x | | x |
| - There is no safe pedestrian access within the parking lots of malls and plazas. | x | | x | | |
| - It is difficult to reach the MPO's trails by walking or bicycling. A vehicle must typically be used to reach local recreational trails. | x | x | x | x | x |

5.3.2 Education Issues

Many conflicts between pedestrians, bicyclists and drivers/motorists are caused or heightened by users of the transportation system that do not know, understand or follow the traffic rules and regulations set forth by State and local law. This section outlines the issues associated with a lack of knowledge and/or understanding of the “rules of the road” on the part of both pedestrians and drivers/motorists.

Figure 5.3.2-1

| PEDESTRIAN EDUCATION ISSUES | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Lack of motorists' knowledge and/or understanding of pedestrian laws is prevalent. | X | | | | |
| - There is not sufficient signage installed to indicate pedestrian laws. | X | | | | |
| - Lack of clarity on how to use/interpret pedestrian traffic signals. | X | | | | |
| - Uncertainty of what pedestrians will do (cross in the middle of road). | X | | X | | |
| - Education of motorists on pedestrian rights is lacking. | X | | | | |
| - Education on pedestrian responsibility is lacking. | X | | | | |
| - Pedestrians stand too close to street curbs, especially at bus stop locations. | X | | X | | |



A pedestrian crosses W. Genesee St. in Clinton Square, Syracuse (photo, left). Pedestrian push buttons typically display directions on how to use said device. In addition, the pictures aid in the correct operation of the push button (photo, right).

5.3.3 Enforcement Issues

There are several local and State laws pertaining to pedestrians and motorists that are required to be adhered to. Support from law enforcement agencies in enforcing these laws will assist in higher levels of safety for pedestrians and motorists. Enforcement issues relating to pedestrians and motorists are noted below.

Figure 5.3.3-1

| PEDESTRIAN ENFORCEMENT ISSUES | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Lack of enforcement of pedestrian traffic laws. | x | | | | |
| - Speeding vehicles impeding upon the safety of pedestrians. | x | | | | |
| - Lack of enforcement of local ordinances pertaining to clear sidewalks. | x | | x | | x |

Lack of enforcement of local ordinances pertaining to clear sidewalks sometimes causes pedestrians to have to walk in the street.



5.3.4 Encouragement Issues

This section highlights the issues associated with encouragement and getting more people to walk in the MPO area. Many individuals will not consider walking, even for a short commute due to limited access to facilities and/or a lack of safe facilities. The following list outlines encouragement issues noted throughout the development of this study.

Figure 5.3.4-1

| | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| PEDESTRIAN ENCOURAGEMENT ISSUES | | | | | |
| - Lack of incentives to walk. | x | x | x | x | |
| - There are a lack of sidewalks leading to desired destinations. | x | | x | | x |
| - Lack of promotion of "pedestrian-ism". | | x | x | x | |
| - Perceived and real safety concerns of walking in various neighborhoods and/or at night. | x | | | | x |
| - Support for disabled and elderly pedestrians is lacking. | x | | x | | |
| - Specific bicycle and pedestrian County and City staff (where it is their responsibility/priority job to address bicycle and pedestrian activities) is lacking. | x | | x | | |
| - Citizen participation is not organized in regard to pedestrian related projects. | | | x | | |
| - Lack of municipal encouragement to incorporate sidewalks/pedestrian paths within road reconstruction projects. | x | | x | | x |
| - With many people driving, a balance between various modes of transportation (pedestrian, bicycle, motor vehicle, & transit) is lacking. | x | | x | | x |
| - Transportation infrastructure in the study area does not lend itself to easy transition between various modes of transportation (i.e., from car to bike, and from car to pedestrian and vice versa). | x | | x | | |

5.3.5 Economic Development Issues

The development, upkeep, and promotion of pedestrian facilities create a positive image in a community as well as a perceived increase in quality of life. These in turn have an effect on the local economy. Well-connected and established pedestrian facilities may encourage others to move to the SMTC MPO area and may even encourage developers to locate their businesses here.

Where walking conditions are less than satisfactory, people may be more likely to stay away, or search for a more pedestrian-friendly alternative. Well-kept and well-lit areas will keep people coming back to shop and contribute to the economic vitality of a community.

Figure 5.3.5-1

| PEDESTRIAN ECONOMIC DEVELOPMENT ISSUES | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Lack of pedestrian access (sidewalks, crosswalks, pedestrian signals) and continuity leading to major destinations, such as shopping centers, malls, and plazas. | X | | X | | X |
| - Perceived and real safety concerns of walking in various neighborhoods and/or at night. | X | | | | X |
| - Lack of or inadequate pedestrian-level lighting within shopping districts. | X | | | | X |
| - Lack of pedestrian access to transit stops. | X | | X | | X |
| - Inadequate signage directing pedestrians to shopping districts. | | | X | | X |



Lack of pedestrian access within parking lots

5.3.6 Other

Other pedestrian issues noted through the development of this plan include the following:

- As noted in the Existing Conditions chapters, there have been numerous pedestrian/motor vehicle accidents at the heavily traveled intersection of Fayette and Salina Streets in downtown Syracuse. This intersection serves as a transit hub for downtown Syracuse as numerous pedestrians walk within this area to utilize transit service and to reach downtown destinations such as restaurants, shops and employment centers.
- *ADA Compliance*

Non-compliance with the American's with Disabilities Act (ADA) of 1990 can lead to inadequate or a lack of curb cuts and ramps as well as improper sidewalk surfaces. Curb ramps should be designed to minimize the grade, cross-slope, and changes in level experienced by users. The transition between the ramp and the street surface should be flush. At some locations in the MPO area, there is a significant difference in elevation between the bottom of the curb ramp and the street surface, a violation of ADA standards. This height transition can create difficulties for individuals with disabilities.



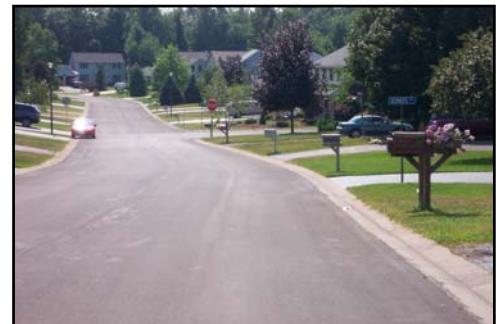
Wheelchair user riding in the road

- *Lack of Sidewalks within Suburban Developments*

As noted in Section 3.1 of this Plan, as a result of the sidewalk data collection efforts and review of the resulting sidewalk maps, the SMTC has noted that there is a general lack of sidewalks in the suburbs throughout the MPO area.

Many new developments in the MPO area are being built without sidewalks, some of which could be attributed to the following:

- Many suburban developments are self-enclosed with cul-de-sacs, thus not having walkable destinations.
- Suburban developments often load traffic onto arterials that are not pedestrian friendly.
- De-densification leads to greater distances between destinations (i.e., home to school).



Suburban setting in Onondaga County

- Separation of uses decreases the linkage between typical destinations (i.e., home and store, home and school).
- Zoning codes often do not mandate sidewalks.
- There are often limited municipal budgets for public sidewalk maintenance.
- Reliance on adjoining property owners to maintain public sidewalks and rights-of-way.
- Some citizens do not want sidewalks built within their development:
 - Perception that there is not a need.
 - Citizens have built into the municipal right-of-way.
 - Some property owners do not want pedestrians in their yard.
 - Initial building expenses (if assessed to taxes) and maintenance expenses.

Even in established urban settings, some of the above noted situations occur. All of the items noted above could lead to concerns in future years. There are often conflicting viewpoints among residents within a single development as to whether or not sidewalks should be installed. It is usually a matter of safety concerns versus the cost, maintenance, and upkeep of sidewalks.

5.4 Bicycle Issues

This portion of Chapter 5 focuses on bicycle transportation issues discovered throughout the development of this Bicycle and Pedestrian Plan. For the purpose of this analysis, all non-motorized wheeled users are included (i.e., bicyclists, rollerbladers, scooter users, and skateboarders). The issues are noted through five major categories: Engineering, Education, Enforcement, Encouragement, and Economic Development.

The individual bicycle issues are tied to the regional issues in matrix format. It is important to note that the regional issues that are checked off within each matrix are somewhat subjective. For the most part, several of the individual issues could be tied to each of the regional issue categories. However, for the purpose of this analysis, the majority emphases of each particular issue are checked off (please note though, that because each of the issues presented in this chapter could affect one's quality of life, this regional issue is not included in the matrices that follow).

5.4.1 Engineering Issues

This section primarily outlines the physical facility issues, concerns and conditions associated with bicycle travel within the MPO area. The bulleted issues are noted through several categories that fall under the engineering heading: infrastructure/facilities issues, street crossing issues (signals), maintenance issues, and access issues. See Figure 5.4.1-1.



Bicyclist on sidewalk

Figure 5.4.1-1

| | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| BICYCLE ENGINEERING ISSUES | | | | | |
| <i>Facility Related</i> | | | | | |
| - Lack of available travel space (i.e. shoulders) on roads. | x | | x | | |
| - Absence of designated on-road bike lanes/routes, and off-road trails/paths. | x | | x | | |
| - Some storm/sewer grates are not perpendicular to the direction of travel (bike wheels get caught in parallel gratings). | x | | | | |
| - Inadequate bike parking accommodations (bike racks/storage facilities). | | | x | | x |
| - Inconsistent shoulder widths, markings, signage. | x | | x | | |
| - Lack of shoulder striping to separate travel lanes between motorists and cyclists. | x | | x | | |
| - Lack of safe routes and safe places to bike. | x | | | | |
| - Government entity/municipality (i.e. road owner) feeling that the striping of bike lanes carries with it additional liability above and beyond the liability associated with shoulder striping. | x | | | | |
| - Bicycle facilities are desired to be constructed throughout the City of Syracuse and Onondaga County to improve quality of life. | x | | x | | |
| <i>Street Crossing Related</i> | | | | | |
| - Countdown lights for bikes at intersections are needed. | x | | x | | |
| - Signage for bicyclists at intersections is lacking. | x | | x | | |
| <i>Maintenance Related</i> | | | | | |
| - Maintenance of pavement and road shoulders is lacking (pot holes and ruts in pavement; debris in bicycle lane and/or shoulders is dangerous). | x | | x | | |
| - Worn shoulder stripes make it difficult to distinguish the travel lane. | x | | x | | |
| <i>Access Related</i> | | | | | |
| - Hilly terrain of city creates dangerous blind curves and hills. | x | | x | | |
| - Network for commuting cyclists is lacking. | | | x | | |
| - Disconnect between municipalities and within municipalities (bike lanes just end). | | | x | | |
| - Bicycle connectivity between major destinations is lacking. | | | x | | x |
| - Connections need to be developed between sections of road for commuting purposes. | x | | x | | |
| - Interstates serve as barriers to bicycle movement | | | x | | |
| - It is difficult to reach the MPO's trails by walking and bicycling. A vehicle must typically be used to reach local recreational trails. | x | x | x | x | x |

5.4.2 Education Issues

Many conflicts between pedestrians, bicyclists and drivers/motorists are caused or intensified by users of the transportation system that do not know, understand or follow the traffic rules and regulations set forth by State and local law. This section outlines the issues associated with a lack of knowledge and/or understanding of the “rules of the road” on the part of both bicyclists and drivers/motorists. See Figure 5.4.2-1.

Figure 5.4.2-1

| BICYCLE EDUCATION ISSUES | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - The promotion/awareness of bike safety rodeos is lacking. | x | | | | |
| - Lack of awareness that Centro has bike racks on buses. | | | x | | |
| - General lack of knowledge of laws, rules and regulations, on the part of motorists and bicyclists. | x | | | | |
| - Education of motorists on the rights of bicyclists is lacking. | x | | | | |
| - Education on bicyclists' responsibility is lacking (I.e., wrong way cycling, | x | | | | |
| - Many bicyclists under the age of 18 are not wearing helmets when riding bicycles, scooters, in-line skates or skateboards. | x | | | | |
| - Uncertainty of what bicyclists will do (cross in middle of road). | x | | x | | |
| - Lack of signage dedicated to bicycling and sharing the road. | x | | | | |
| - Laws, rules and regulations concerning bicyclists vary from community to community (villages, towns, etc.). | x | | | | |

As noted in the SMTC Bicycle and Pedestrian Awareness Survey, 46% of the population was unaware of or not sure what the helmet law in Onondaga County states.

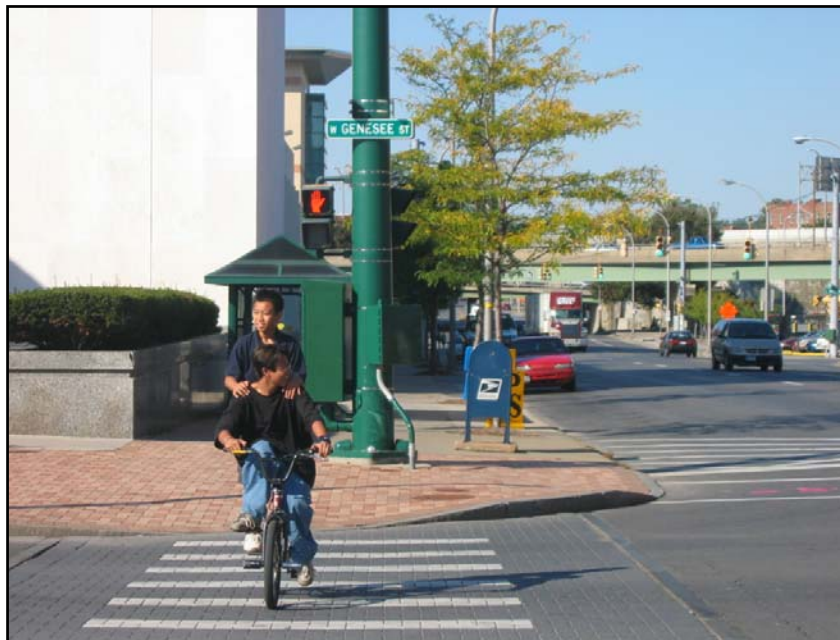


5.4.3 Enforcement Issues

There are several local and State laws pertaining to bicyclists and motorists that must be adhered to. Support from law enforcement agencies in enforcing these laws will assist in higher levels of safety for bicyclists and motorists. Issues relating to enforcement are noted in Figure 5.4.3-1.

Figure 5.4.3-1

| BICYCLE ENFORCEMENT ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Law enforcement agencies should play a role in making motorists aware that they have to share the road. | x | | | | |
| - Lack of enforcement of bicycle related traffic laws. | x | | | | |
| - Speeding vehicles impeding on the safety of bicyclists. | x | | | | |



Children on a bicycle in Clinton Square -- Syracuse, NY

5.4.4 Encouragement Issues

This section highlights the issues associated with encouragement and getting more people to ride their bikes in the MPO area. Many individuals will not consider bicycling, even for a short commute due to limited access and/or a lack of safe facilities and safe and easy bicycle parking. The following list outlines encouragement issues noted throughout the development of this study:

Figure 5.4.4-1

| BICYCLE ENCOURAGEMENT ISSUES | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Lack of incentives to commute by bike. | | x | x | x | |
| - Lack of places to rent a bike. | | | x | | x |
| - Lack of bicycle racks and bicycle storage. | | | x | | x |
| - Not enough Federal funding going towards bicycle travel. | | | x | | |
| - Some people don't bike because of safety reasons, weather, they don't know how, security reasons, and lack of encouragement. | x | | x | | |
| - Specific bicycle and pedestrian County and City staff (where it is their responsibility/priority job to address bicycle and pedestrian activities) is lacking. | x | | x | | |
| - Perceived and real safety concerns of bicycling in various neighborhoods and/or at night. | x | | | | |
| - Public Safety Announcements (PSAs) that promote safe bicycle riding are lacking. | x | | | | |
| - Planners/officials don't understand the needs of cyclists. | | | x | | |
| - The media is not as involved as it should be. | | | | | |
| - The promotion/awareness of bike safety rodeos is lacking. | x | | | | |
| - In some municipalities, lack of municipal policy to incorporate bikeways within road reconstruction projects. | x | | x | | x |
| - With many people driving, a balance between various modes of transportation (pedestrian, bicycle, motor vehicle and transit) is lacking. | x | | x | | x |
| - Transportation infrastructure in the study area does not lend itself to easy transition between various modes of transportation (i.e. from car to bike, and from car to pedestrian, and vice versa). | x | | x | | |

5.4.5 Economic Development Issues

The development, upkeep, and promotion of bicycle facilities create a positive image in a community as well as a perceived increase in quality of life. These in turn have an effect on the local economy. Well-connected and established bicycle facilities may encourage others to move to the SMTC MPO area and may even encourage developers to locate their businesses here.

Bicyclists may stay away from areas where biking conditions are less than satisfactory (i.e., lack of bicycle parking). Well-kept and well-lit areas will keep people coming back to shop and contribute to the economic vitality of a community.

Figure 5.4.5-1

| BICYCLE ECONOMIC DEVELOPMENT ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Lack of bicycle access to major destinations, such as shopping centers, malls, plazas, educational and healthcare institutions, commercial areas, leisure areas, and attractions. | x | | x | | x |
| - There is very limited safe bicycle access within the parking lots of malls and plazas. | x | | x | | x |
| - Perceived and real safety concerns of bicycling in various neighborhoods and/or at night. | x | | | | x |
| - Lack of or inadequate street lighting within shopping districts. | x | | | | x |
| - Inadequate signage directing people to shopping districts. | | | | | x |
| - Lack of bicycle racks and bicycle storage. | | | x | | x |
| - Lack of places to rent a bike. | | | x | | x |

“Little Italy” along North Salina Street in Syracuse (photo, right) has recently been renovated. Wider sidewalks, pedestrian level lighting, street benches and trash receptacles have been added.



5.5 Greenway/Trail Issues

Issues pertaining to greenways and trails within the study area are noted in Figure 5.5-1.

The individual greenway and trail issues are tied to the regional issues in matrix format. It is important to note that the regional issues that are checked off within each matrix are somewhat subjective. For the most part, several of the individual issues could be tied to each of the regional issue categories. However, for the purpose of this analysis, the majority emphases of each particular issue are checked off (please note though, that because each of the issues presented in this chapter could affect one's quality of life, this regional issue is not included in the matrices that follow).

Figure 5.5-1

| GREENWAYS/RECREATIONAL TRAIL ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - The biking/walking trails within the MPO area are not linked/integrated. | | x | x | x | x |
| - It is difficult to reach the MPO's trails by walking and/or bicycling. A vehicle must typically be used to reach local recreational trails. | x | | x | | x |
| - Citizen participation is lacking in the development of recreational trails. | | | | | |
| - There needs to be connectivity between major destinations and parks/trails. | x | | x | | x |
| - Existing trails should be linked together. | x | | x | | x |
| - Trail etiquette is lacking (i.e., people not cleaning up after their dogs, etc.). | | | | | |
| - Need more off-road routes and trails that are separated from traffic. | x | | x | | |
| - Lack of safe places to bike. | x | | x | | |

According to the SMTC Bicycle and Pedestrian Awareness Survey, when asked where respondents would desire to travel by bike or on foot, Onondaga County residents would primarily like to be able to reach parks and recreational trails (28%).



5.6 Transit Issues

Broad based bicycle and pedestrian issues found in the study area that pertain to transit can be found in Figure 5.6-1. Individual transit issues are tied to the regional issues in matrix format. It is important to note that the regional issues that are checked off within each matrix are somewhat subjective. For the most part, several of the individual issues could be tied to each of the regional issue categories. However, for the purpose of this analysis, the majority emphases of each particular issue are checked off (please note though, that because each of the issues presented in this chapter could affect one's quality of life, this regional issue is not included in the matrices that follow).

Figure 5.6-1

| TRANSIT ISSUES | REGIONAL ISSUES | | | | |
|---|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| - Some transit drivers may not be aware of when pedestrians have the right-of-way. | x | | x | | |
| - Some transit drivers may not be aware that bicyclists have a right to share the road. | x | | x | | |
| - Number of bus stop shelters and benches is limited (shelter from wind, snow, and rain should be available). | x | | | | |
| - The majority of bus stops are located at the near side of intersections, which often results in buses obstructing traffic control devices. | x | | x | | |
| - Lack of a lead walk paved surface between the sidewalk and curb at bus stop locations forces individuals to walk and/or stand on muddy, wet or snow covered ground and is not accommodating to wheelchair accessibility. | x | | | | |
| - As learned through the Bicycle and Pedestrian Awareness Survey, there is a lack of knowledge about the existence of bicycle racks on Centro buses. | | | x | | |
| - The spreading out of destinations (sprawl) and lower density development patterns has made transit planning and widespread usage of transit difficult, as transit planning typically favors density. | | | x | | |
| - Although Centro has made strides in supplying transit service between suburbs, it is difficult and somewhat inefficient to provide complete suburb-to-suburb transportation via the Centro transit system. This activity often requires transfers at the downtown Syracuse hub. | | | x | | x |

Figure 5.6-1

| | REGIONAL ISSUES | | | | |
|--|-----------------|--------|----------|-------------|---------|
| | Safety | Health | Mobility | Environment | Economy |
| TRANSIT ISSUES | | | | | |
| - There is little to no congestion in the Syracuse Metropolitan Area, so it is typically faster and more convenient for most MPO residents that own vehicles to travel to work in an automobile, a long-standing occurrence that the transit system has had to deal with in the Syracuse area. | | | x | | |
| - There are perceived safety issues and concerns with bus travel. | x | | | | |
| - Lack of use of OnTrack due to limited schedule. | | | x | | |
| - Lack of awareness of whether or not bicycles are allowed on OnTrack. | | | x | | |

The aforementioned bicycle and pedestrian transportation issues were identified through the course of completing the existing conditions inventory documented in Chapters 1-4, the public involvement process, and comments received throughout the course of this study. The next portion of this document will include a wide variety of recommendations aimed at addressing the common bicycle and pedestrian issues found throughout the SMTC MPO study area.