Wellsboro

Enhancement Strategy and Mobility Plan

Profile of Existing Transportation Conditions

DRAFT - August 20, 2008

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Project-In-Brief

Project Purpose:	• To identify recommendations aimed at improving the walkability of the borough; • resolve issues at US 6's intersection with Charleston Street; • improve traffic flow; and • coordinate all modes of transportation. • **In sum, provide a document for future decision-making.**
This Phase:	• Data Collection (desktop data collection, mapping, stakeholder interviews, safety audit field work); • Understanding of Baseline Conditions.
Next Steps:	A. Finalize Existing Conditions memo (this document) B. Public Involvement #1 (public meeting) C. Development of Initial Study Recommendations

Management Summary

Various trends and factors impact transportation and travel patterns throughout Wellsboro Borough. This section provides a synopsis of socio-demographic and transportation-related trends that have (or will) impact transportation in the area over the next several years. This information will be communicated to the public and ultimately be used in the development of study recommendations.

1. Total population within the borough has generally remained the same since the 2000 Census.

The Census estimates the borough's 2006 population at 3,325 – roughly the same as in 2000. Change in population in all three study municipalities (Wellsboro, Charleston and Delmar) has been minimal, mirroring overall county population trends. Projections by the Northern Tier show the borough continuing to lose population, with the two surrounding townships expected to continue to grow and eventually overtake the borough in size over the next decade.

2. The average Wellsboro resident is older than in other municipalities.

The age of the average Wellsboro resident is 44.2, higher than state and county averages. Average age of residents in the surrounding townships however, is increasing at a faster pace. Wellsboro's share of dependent population[1] is now at 45 percent. This is a decline of 1.6 percentage points from 1990 yet still nearly 6 percentage points higher than the state average.

3. Population losses have come as a result of declining dependent population.

Total population change in the borough has remained flat since 1990, yet the *composition* of its population has changed. During the 1990s, the borough's total population declined by 102, while its dependent population declined by 104, decreasing its share of dependent population slightly.

4. Wellsboro has more jobs than workers.

The borough is a significant importer of workers from surrounding areas. Census data indicate there are approximately 5,000 jobs within the borough, yet there are only 1,378 resident workers to fill them. A significant majority of the borough's workers (73 percent) are employed within the municipality of residence. A significant number of workers in the borough (1,600) originate in Charleston and Delmar townships.

5. The Borough maintains the majority of borough roadways.

There are 23 linear miles of roadway within the borough. A majority of this total (16.9 miles) is owned by the borough, while the state owns and maintains 9.06 miles. The borough typically receives approximately $84,000 annually in Liquid Fuels money, based on a formula of total population and roadway mileage. The Northern Tier has programmed $10.56 million in roadway and bridge improvement projects for the area as part of the region's 2009 – 2012 Transportation Improvement Program (TIP).

[1] Those younger than 18 and older than 65

6. **Daily Vehicle Miles of Travel (DVMT) on state-owned roadways is increasing slightly, although much lower than state average rates of increase.**

PennDOT data indicate that vehicle miles of travel has increased by only 4.9 percent for the 10-year period ending 2007. This is an average annual rate of increase of less than one half of one percent. Travel statewide has been increasing at an average rate of 1.5 to 2 percent annually.

7. **Total crashes within the borough are trending in a favorable direction.**

State data indicate a total of 95 reportable crashes for the five-year period ending 2007. Total annual crashes ranged from a high of 25 in 2003 to a low of 15 in 2007. There has been only one fatality over this same period. Crash clusters exist at East Avenue and at US 6's intersection with Charleston Street. Crashes in Wellsboro also involve a greater share of seniors (26 percent) compared to Tioga County as a whole (11.5 percent).

8. **Dedicated pedestrian signal phases appear to be contributing to traffic congestion.**

Pedestrians have been observed crossing intersections during the vehicular traffic phase, leaving motorists to sit during the exclusive pedestrian phase. Pedestrians are also crossing during the vehicular traffic phase at intersections where there are no pedestrian signal heads, such as at Central Avenue's intersection with Main Street.

9. **Pedestrian signals are out of date or missing altogether.**

The visibility of many of the borough's pedestrian signals are becoming negatively affected by lensburn. Additionally, the type of pedestrian signals being used are no longer installed as part of new signal installations in lieu of the educational hand/man symbol. At the time of the study team's site visit, the bulb appeared to be burned out in at least one pedestrian signal.

10. **The intersection at Main, Charleston and Tioga Street meets warrants for signalization.**

The intersection satisfies three warrants for signalization. There are other issues at this intersection, including sight distance and safety (both pedestrian and vehicular).

11. **Some use of yellow markings in the borough is incorrect as per the standards set in the Manual of Uniform Traffic Control devices, or MUTCD.**

Yellow markings (rather than signing) is being used to restrict parking in many areas throughout the borough. The correct use of yellow longitudinal markings is to separate traffic traveling in opposite directions, placed along the left edge of the roadways of divided and one-way highways and ramps.

12. **A recent traffic safety audit (June 17-19) revealed many deficiencies.**

The study team performed a safety audit along five major roadway segments within the borough, including portions of US 6, PA 287 and PA 660, as well as Charleston Street. Deficiencies included faded signing and roadway markings, non-conforming curb cuts, access management concerns, and sight distance limitations, to name a few.

13. **Senior safety and mobility is compromised by speeding motorists, infrequent public transportation service and various infrastructure issues.**

Outcomes from July 16 public events at Park Hill Manor and Pinnacle Towers are summarized within this report.

Background/Introduction

The planning team has prepared a background profile as part of the Wellsboro Enhancement Strategy and Mobility Plan. As with any planning process, the purpose of developing a background profile is to establish a baseline from which to plan for the future. This report summarizes the study area's existing socio-demographic conditions, existing transportation system, and offers a review of other planning documents and studies that have a bearing on the outcomes of the study.

Existing Socio-Demographic Conditions

Stable Population Growth Trends

The three municipalities within the study area, Wellsboro Borough, Delmar Township, and Charleston Township are among the most populous municipalities within Tioga County. Only Mansfield Borough, with a 2000 Census population of 3,411 is more populous than any of the three study area municipalities. The municipalities are also rather close to each other in size, with a difference of only 435 persons between Wellsboro and Delmar in 2000.

As Figure 1 shows, total population in Delmar and Charleston Townships has been on an upward trend since 1950. Delmar Township did experience a population decline during the 1990s, but has since gained according to the 2006 population estimates by the Census Bureau. Wellsboro's total population peaked in 1960 and has declined in each succeeding decade. The decline has slowed considerably in recent years with the borough losing only 3 persons between 2000 and 2006.

Table 1 below shows the study area's historical population while Table 2 shows the rate of population change over the past 30 years.

Table 1
Historical Population, 1980-2006

Municipality	1980	1990	2000	2006 Est.
Wellsboro Boro	3,805	3,430	3,328	3,325
Delmar Twp	2,732	3,048	2,893	2,945
Charleston Twp	2,712	2,957	3,233	3,276
Tioga County	40,973	41,126	41,373	41,382

Source: US Census

Table 2
Population Change, 1980-2006

	1980s		1990s		2000-2006	
Municipality	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Wellsboro Boro	-375	-9.9%	-102	-3.0%	-3	-0.1%
Delmar Twp	316	11.6%	-155	-5.1%	52	1.8%
Charleston Twp	245	9.0%	276	9.3%	43	1.3%
Tioga County	153	0.4%	247	0.6%	9	0.0%

Source: US Census

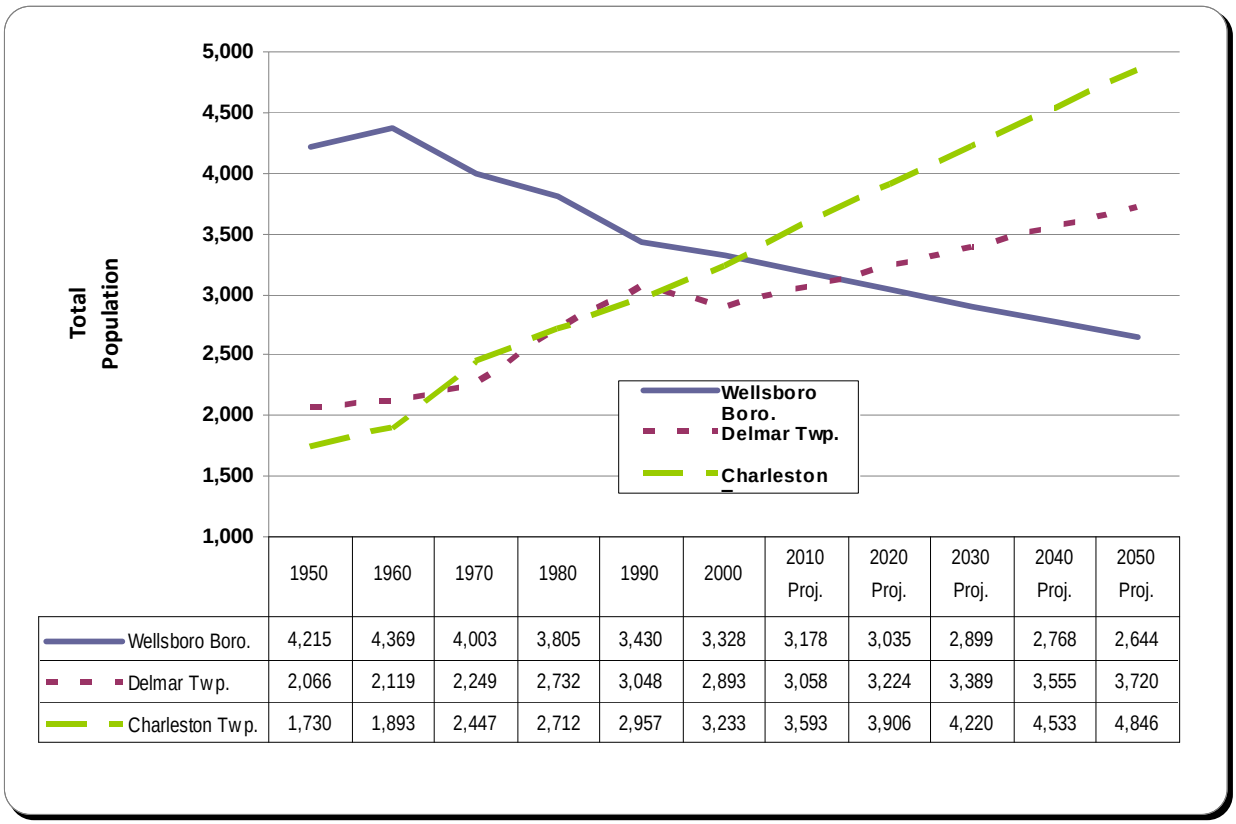
Population Projections

Projections of future populations are useful in planning activities to provide an indication of what level of population may need to be served in the future. Fast growing areas will require more municipal services than slower growing or declining areas.

Estimates from 2006 indicate that township population growth is less than originally projected, while borough declines are also less than originally projected.

Population projections performed by the Northern Tier Regional Planning & Development Commission (NTRPDC) show the current trends of the past 60 years continuing into the future. As Figure 1 shows, Wellsboro is projected to lose 684 persons through 2050, while Delmar Township increases by 872 persons and Charleston Township gains 1,613 persons within the same period. It must be understood that population projections are only an educated guess at the future and they are generally only useful at providing an indication of general trends. The 2006 Census estimates appear to indicate that the growth of the two townships will be less than projected, while the borough's population loss will be less than expected.

Figure 1
Historical and Projected Population



	1950	1960	1970	1980	1990	2000	2010 Proj.	2020 Proj.	2030 Proj.	2040 Proj.	2050 Proj.
Wellsboro Boro.	4,215	4,369	4,003	3,805	3,430	3,328	3,178	3,035	2,899	2,768	2,644
Delmar Twp.	2,066	2,119	2,249	2,732	3,048	2,893	3,058	3,224	3,389	3,555	3,720
Charleston Twp.	1,730	1,893	2,447	2,712	2,957	3,233	3,593	3,906	4,220	4,533	4,846

Source: US Census, Northern Tier Regional Planning & Development Commission

An Aging Population

Age is an important factor to consider when evaluating the community's transportation system. The oldest and youngest members of the population likely cannot or do not drive and their transportation needs must be accommodated in ways other than as a motorist. Additionally, as the population as a whole becomes older, the roadway system must be responsive to the needs of older drivers.

Average age in Wellsboro is 6 years higher than the state average.

As Table 3 shows, in all three municipalities (as well as Tioga County and Pennsylvania as a whole) the median age of the study area population has increased. The median age increased the most in Delmar Township, where it rose 5.5 years. Meanwhile, in Wellsboro (which already had an older base) the median increased by only 2.1 years.

Table 3
Median Age, 2000

Municipality	Median Age	Change from 1990
Wellsboro Boro	44.2	+ 2.1
Delmar Twp	39.8	+ 5.5
Charleston Twp	41.2	+ 3.3
Tioga County	38.5	+ 4.3
Pennsylvania	38.0	+ 3.0

Source: US Census

Table 4 shows figures for the dependent populations, or those who are age 17 and younger and age 65 and older. Despite the rising median age in all three municipalities, the percent of the population that is age 65 and older declined in both Wellsboro and Delmar. This percentage increased in Charleston, however the percentage of the population that is age 17 and younger also increased. These figures are likely reflective of the overall growth in population in Charleston Township in the 1990s and the corresponding population loss in the other two municipalities.

Table 4
Dependent Population, 2000

		Age 17 and Under		Age 65 and Over	
Municipality	**Total Population**	**Percent**	**Percentage Point Change from 1990**	**Percent**	**Percentage Point Change from 1990**
Wellsboro Boro	3,328	20.9%	-0.4%	24.1%	-1.9%
Delmar Twp	2,893	26.1%	-1.8%	12.9%	-0.2%
Charleston Twp	3,233	24.5%	+0.3%	18.4%	+0.9%
Tioga County	41,373	23.7%	-1.6%	16.0%	+1.0%
Pennsylvania	12,281,054	23.8%	+0.3%	15.6%	+0.2%

Source: U.S. Census

Wellsboro: More Jobs than Workers

Census data indicate there are nearly 5,000 jobs within Wellsboro, yet there are only 1,378 resident workers to fill them. A significant majority (73 percent) of Wellsboro's resident workers are employed within the borough, while 13 percent are destined for other nearby Tioga County communities such as Mansfield, Blossburg, Liberty and Tioga. Only 3.5 percent of the borough's workers are employed at destinations out of state. The high rate of workers employed within the borough underscores the importance of accommodating bicycle and pedestrian modes of travel.

Table 5 shows the top ten destinations for the borough's workers in rank order.

Table 5
Destination of Resident Workers, 2000

Destination Municipality	Number of Workers
1. Wellsboro Boro	1,010
2. Mansfield Boro	61
3. Blossburg Boro	53
4. Liberty Boro	24
5. Liberty Twp	22
6. Tioga Boro	22
7. Elmira city, NY	19
8. Middlebury Twp	18
9. Tioga Twp	17
10. Richmond Twp	16

Source: US Census

Nearly 92 percent of all of Wellsboro's workers reside in Tioga County.

Wellsboro is a net importer of workers, with a defined laborshed that reaches across most of Tioga County and into Galeton and Harrison Township in neighboring Potter County, as well as into Pine Township to the south in Lycoming County. Nearly 92 percent of all of Wellsboro's workers reside in Tioga County.

Table 6 below shows the most significant origins of workers employed within Wellsboro.

Table 6
Origin of Workers, 2000

Municipality of Origin	Workers Employed in Wellsboro
1. Wellsboro Boro	1,010
2. Charleston Twp	817
3. Delmar Twp	801
4. Richmond Twp	222
5. Middlebury Twp	220
6. Mansfield Boro	140
7. Shippen Twp	124
8. Covington Twp	106
9. Sullivan Twp	91
10. Chatham Twp	74

Source: US Census

Existing Transportation System

Roadways

Wellsboro's transportation system is anchored by its nearly 23 linear miles of roadway. Nearly three-quarters of the borough's roadways are owned and maintained by the municipality (16.9 miles), while the rest (9.06 miles) are state-owned facilities. Several principal traffic routes converge in Wellsboro, highlighting its prominence as a regional destination. These major traffic routes include: US 6, PA 287, PA 660, and Charleston Street (SR 4002) and are shown in Map 1.

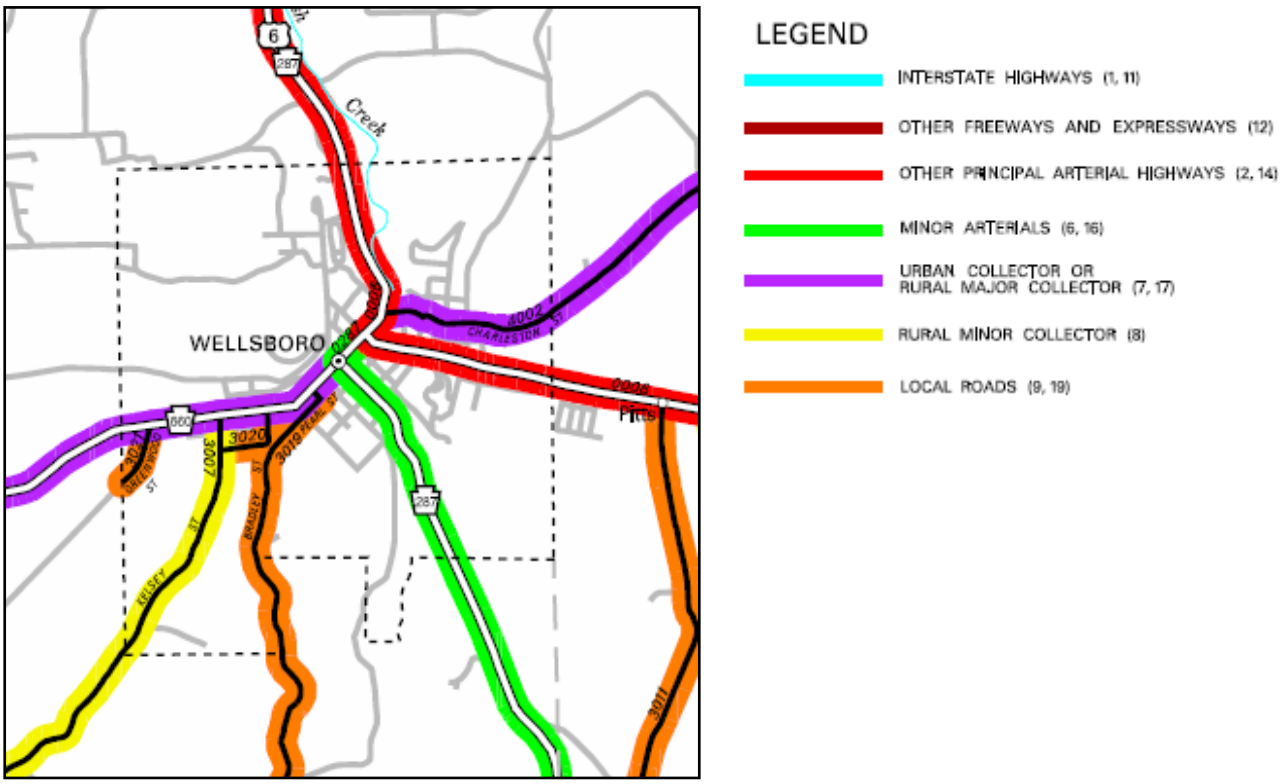
The roadways of the borough vary in their characteristics and traffic carrying capacity and are assigned to one of five roadway classifications. These classifications are shown in Figure 2 and include:

- **Rural Principal Arterial –** These roadways link cities and larger towns and form an integrated network providing interstate and inter-county service. The only study area roadway in this classification is US 6, which is multiplexed with PA 287 north of the borough.
- **Rural Minor Arterial –** Roadways of this classification provide service to corridors with trip lengths and travel densities greater than those predominantly served by rural collector or local roads. They are generally designed to accommodate relatively high overall travel speeds with a focus on through movement. Within the study area, PA 287 is classified as a rural minor arterial.
- **Rural Major Collector –** The roads generally serve travel needs that are intra-county in nature with shorter trip lengths and slower speeds. Within Wellsboro, PA 660 west of the borough and Charleston Street east of the borough are classified into this category.
- **Rural Minor Collector –** These roads collect traffic from local roads and link locally important traffic generators with rural areas. Kelsey Street is a rural minor collector.
- **Local –** These roads are the lowest order of roadway with the slowest speeds and shortest travel distances. Many trips will begin and end on these roads that provide access to a wide range of areas. Local roads include Bradley Street/Pearl Street, Conway Street/Berwart Street, and all municipally owned streets.

Figure 2 graphically shows the functional classification of the borough's roadways.

Aaron – Insert PDF of Map 1 here

Figure 2
Roadway Functional Classification



Roadway Improvements

The Northern Tier Regional Planning and Development Commission, in partnership with Tioga County and PennDOT, has programmed over $10.56 million in roadway and bridge improvements within the Greater Wellsboro study area[2] as part of its 2009 Transportation Improvement Program (TIP). A majority of the projects are oriented towards roadway resurfacings, bridge replacements, and other system preservation projects.

Projects within Wellsboro include two resurfacing projects on US 6 and SR 3019 (Bradley Street), as well as a bridge replacement of King Street over Kelsey Creek.
It should be noted that the study area municipalities also have access to line item reserves for CMAQ projects (those that mitigate congestion and improve air quality) totaling $1.67 million. These monies can be used for such things as traffic signals, public transportation equipment, park and rides and similar projects. A second line item includes costs related to bridge preservation work in many Tioga County municipalities, including the ones within the study area.

[2] Including Charleston and Delmar Townships

Table 7 shows area projects appearing on the region's 2009 TIP, which was approved by the State Transportation Commission (STC) on August 7, 2008.

Table 7
2009 TIP Projects Within the Study Area

Location	Description	Cost	Construction Year
Charleston Twp	SR 4035 over Catlin Hollow Creek	$233,972	n/a
Charleston Twp	SR 4002 over Catlin Hollow Creek	$487,500	2009
Charleston Twp	US 6 over Charleston Creek bridge replacement	$809,120	2010
Delmar Twp	SR 3007 over West Branch of Stony Fork Creek bridge replacement	$208,000	2009
Delmar Twp	SR 3007 over Stony Fork Creek bridge replacement	$624,000	2009
Delmar Twp	PA 287 resurfacing from SR 3019 to Wellsboro	$2,643,430	2011
Delmar Twp	PA 287 over Marsh Creek	$701,915	2012
Delmar Twp	SR 3007 over West Branch of Stony Fork Creek	$233,728	2013
Wellsboro Boro	King Street over Kelsey Creek bridge replacement	$2,218,340	2013
Wellsboro/Delmar	SR 3019 resurfacing from PA 287 to Pearl Street	$1,541,696	2010-11
Wellsboro/Delmar	US 6 resurfacing from Stokesdale to Wellsboro	$859,846	2012-13

Source: Northern Tier Regional Planning and Development Commission

In addition to the improvements programmed in the TIP, PennDOT's Maintenance District 3-7, located in Wellsboro, has maintenance projects programmed for state roads in the area. While these projects are programmed for upcoming years, PennDOT staff has indicated that the actual timeframe within which the projects will be constructed is unknown. The skyrocketing costs of oil-based asphalt materials and fuel has had a direct and immediate impact on the scheduling of maintenance projects. Costs of liquid asphalt for example have more than doubled during the year, from $295/ton in January to more than $600/ton in August.

There are three projects to be completed in coming years, as funds permit:

- Main Street milling and resurfacing from County Courthouse to Charleston Street.
- US 6 resurfacing from Main Street to Weis Markets
- US 6 resurfacing from Weis Markets to SR 4002/PA 660.

Maintenance and improvements to Wellsboro's locally-owned roadway system are largely accomplished using Liquid Fuels revenues that are disbursed by PennDOT's Bureau of Municipal Services. Wellsboro's share of this funding is determined on a formula basis,

expressly the borough's share of total population, as well as municipal roadway mileage. For fiscal year 2008, this total amounted to $84,142.78. The only way this figure would rise appreciably would be if there were a legislative change in the funding formula or if there were a gas tax increase. The formula for this disbursement is steady and the amount typically increases from year to year, based on the amount of DVMT which in turn generates the gas tax revenues that capitalize the liquid fuels amounts. Total municipal roadway mileage in Wellsboro is 16.9 miles, while the 2000 decennial census put its population at 3,325. The population figure is used until the next decennial census in 2010.

Wellsboro has currently taken out a loan to accomplish a large number of paving and infrastructure projects, with the loan to be repaid through future Liquid Fuels revenue. With this loan, the borough is planning the following projects:

- Reconstruction (milling/base repair/paving) of the following roads:
    - Lower Jackson Street (North of US 6)
    - Norris Street
    - McInroy Street
    - Eberenz Street
    - Water Street
    - Queen Street
    - Wetmore Street
- Replace traffic signal loop detector on McInroy Street
- Pipe and trench repair borough-wide
- Base repairs borough-wide
- Milling borough-wide

Other borough projects not financed by the loan include:

- Extend the sewer main to the borough line on Kelsey Street
- Improvements to the Hamilton Lake recreation area
    - ADA accessible boat launch improvements
    - Restrooms
- New playground equipment at Packer Park on Queen Street
- East Avenue sidewalk extension to Wellsboro Plaza.

Slight Increases in Travel and Traffic Volumes

Traffic volumes were collected for the Wellsboro area from several sources. Some of the data was collected from PennDOT databases that contain current as well as historical information. Other data was collected in the field by the consultant by either direct observation or from

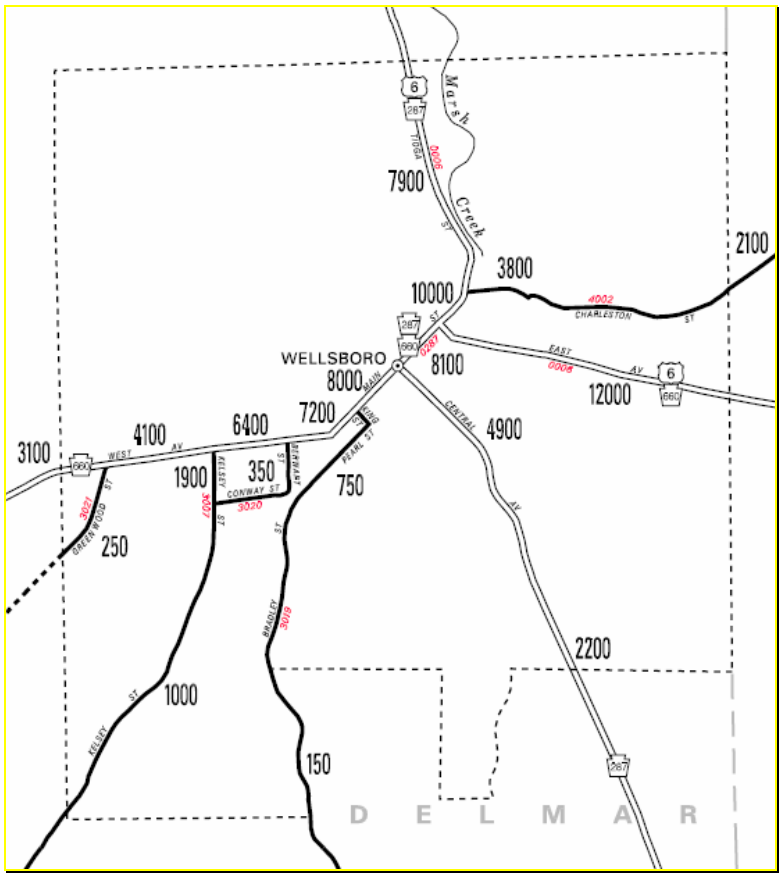
traffic data recorders placed in the roadway. The travel data collected in the field is summarized elsewhere in this report under the Turning Movement Counts section.

The overall amount of travel in Wellsboro borough has increased only slightly in recent years. On state-owned roads in the borough, Daily Vehicle Miles of Travel (DVMT) rose 4.9 percent in the ten year period ending 2007. This is an average growth rate of less than one half of one percent per year. Total DVMT increased from a 1997 total of 37,309 miles to a 2007 total of 39,144. The amount of travel on local roads is not recorded by PennDOT, so numbers are not available.

Traffic volumes for 2006 on state-owned roads in Wellsboro are shown in Figure 3. The roadways with the highest volumes are the entire length of US 6 through the borough and also Main Street (PA 287).

The volumes indicate that the vast majority of traffic into and out of the borough travels on US 6. The East Avenue portion of this historic and scenic roadway carries an average of 12,000 vehicles per day, which is the highest volume of any study area roadway. The Tioga Street portion carries 7,900 vehicles, which is still much higher than either PA 660, at 3,100 vehicles or PA 287 with 2,200 vehicles.

Figure 3
Traffic Volumes, 2006



Source: PennDOT Bureau of Planning and Research

Crash Trends

PennDOT maintains a database of all reportable crashes in the state. A reportable crash is a crash resulting in a death within 30 days of the crash; or injury in any degree, to any person involved; or crashes resulting in damage to any vehicle serious enough to require towing.

Aside from a slight uptick in 2005, the total number of crashes in Wellsboro has been trending in a favorable direction. Within the five year period ending 2007 there were 95 reportable crashes within Wellsboro Borough. One of these crashes involved a fatality. Table 8 shows crash trends in the borough versus county and state trends.

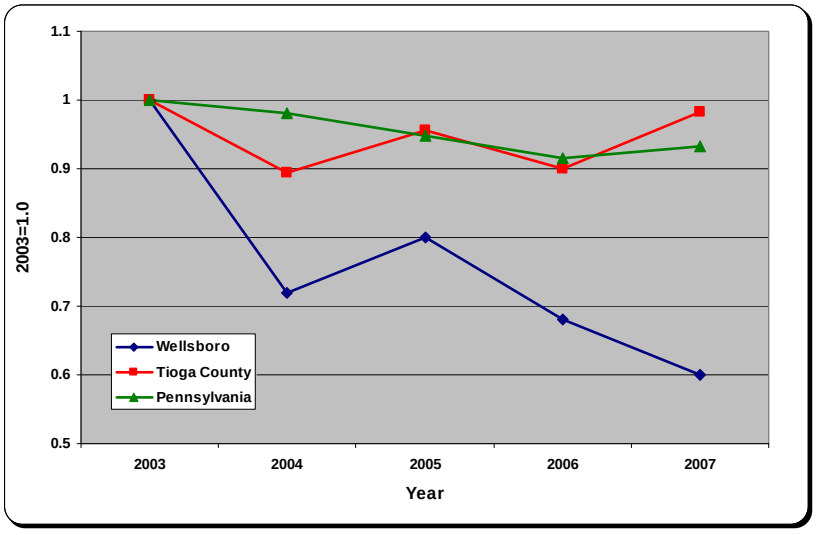
Table 8
Crash Trends, 2003-2007

	2003	2004	2005	2006	2007
Wellsboro					
Crashes	25	18	20	17	15
Fatalities	0	0	0	0	1
Tioga County					
Crashes	471	421	450	424	463
Fatalities	10	6	11	11	9
Pennsylvania					
Crashes	140,207	137,410	132,829	128,342	130,675
Fatalities	1,577	1,490	1,616	1,525	1,491

Source: PennDOT Bureau of Highway Safety

Figure 4 below expresses the rate of change another way, using 2003 as a base year. Crashes have declined in Wellsboro at a greater rate than in Tioga County or Pennsylvania as a whole.

Figure 4
Total Crashes as a Percent of 2003 Values



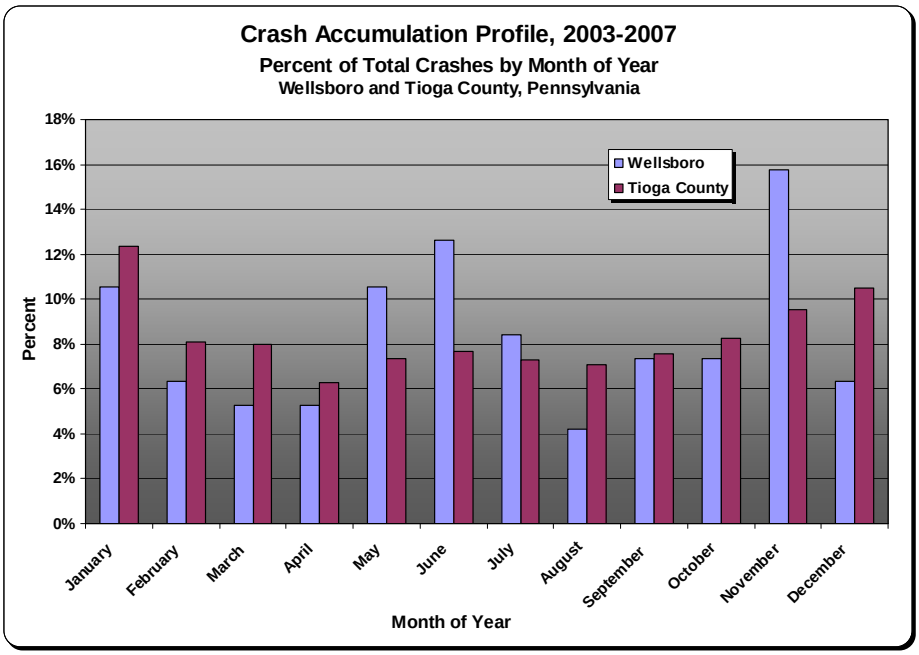
The total number of reportable crashes in Wellsboro has been trending in a favorable direction.

Source: PennDOT Bureau of Highway Safety

Crashes: By Month of Year

The study team also collected data on the number of crashes by month of year. Of the 95 crashes reported during the five-year period, a clear majority occurred during the month of November. The second-highest was during the month of June – the same month as the Laurel Festival, Wellsboro's most significant tourism attraction. Figure 5 below shows how – when compared against county crash trends – a majority of crashes in the borough occur during the summer months and during the typical "first snow" of November.

Figure 5
Percent of Total Crashes by Month of Year

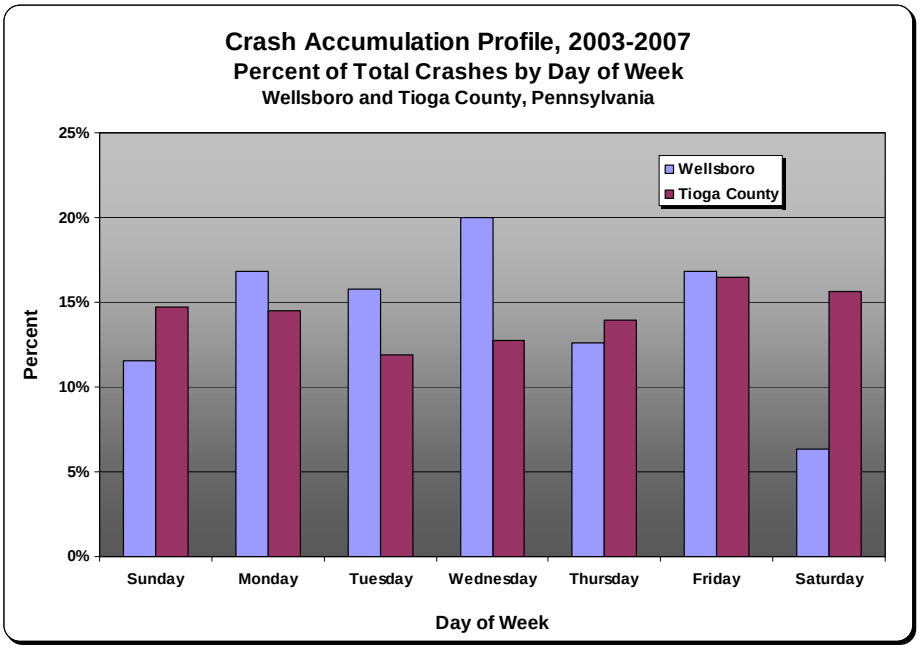


Source: PennDOT Bureau of Highway Safety

Crashes: By Day of Week

Crashes are also variable, depending on the day of the week. Within the borough, a majority of crashes occur on Wednesday (20 percent), as demonstrated below in Figure 6. Crashes within the borough occur on Saturdays at rates less than half of the countywide rate.

Figure 6
Percent of Total Crashes by Day of Week

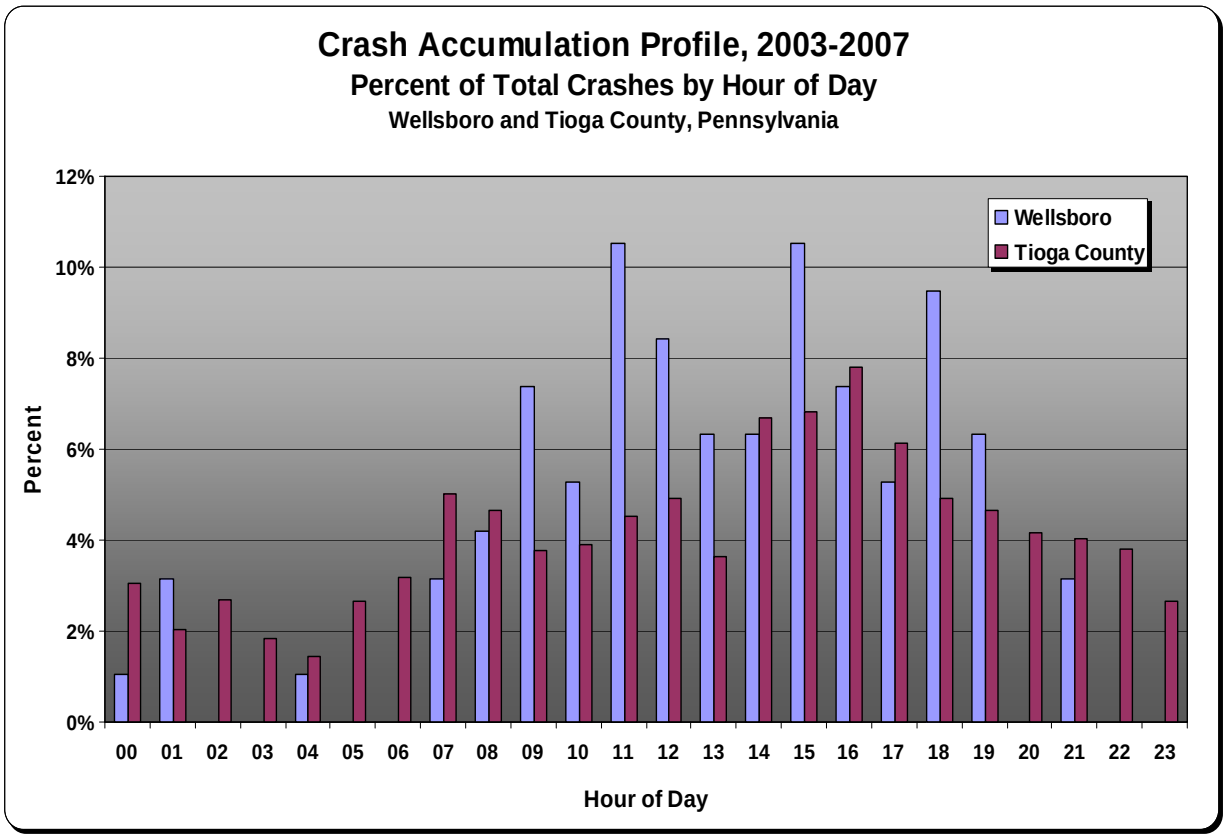


Source: PennDOT Bureau of Highway Safety

Crashes: By Hour of Day

Figure 7 below shows daily crash trends by hour of day for both Wellsboro and Tioga County as a whole. As should be expected, crash data trends for Tioga County as a whole are much "smoother" than in Wellsboro's experience. Peak hours for crashes within the borough have been during the morning hours between 9 and 12 noon, and again during the 3 PM hour and 6 PM hour. There are substantially fewer crashes during the overnight hours in the borough compared to the county, as Figure 7 shows.

Figure 7
Percent of Total Crashes by Hour of Day



Source: PennDOT Bureau of Highway Safety

Crashes Involving Pedestrians; Heavy Trucks

There are a relatively low number of crashes involving pedestrians and heavy trucks. The actual numbers reported during the 2003-07 period were 6 crashes involving pedestrians (versus 27 countywide), and 3 involving heavy trucks (compared to 138 countywide).

Crashes Involving Seniors

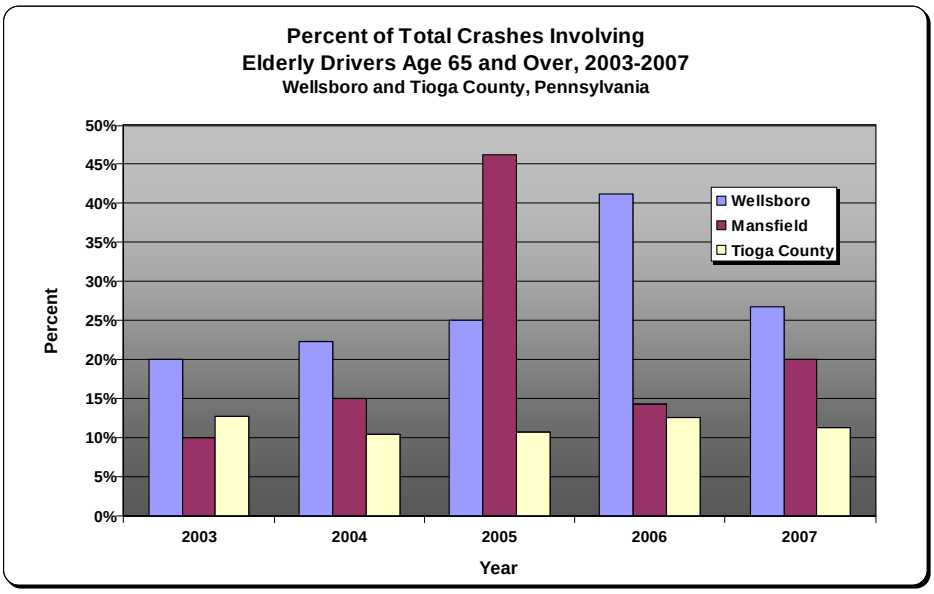
Perhaps the most revealing crash statistic involves the number of crashes involving seniors (65+) within the borough compared to the county as a whole. For the five-year period ending 2007, more than one in four crashes in Wellsboro involved a senior, or a driver over the age of 65 (Figure 8). In 2006 alone, the rate was over 41 percent, compared to a county rate of only 12.5 percent. By comparison, rates in other Tioga County boroughs such as Blossburg and Tioga were generally uniform with county rates. In the borough of Mansfield, rates were generally higher (20 percent for the five-

More than one in four crashes in Wellsboro involves a senior (65+).

year period), yet still lower than in Wellsboro or Tioga County in general. For the five-year period ending 2007, there were 25 crashes in Wellsboro involving seniors over age 65. Ten of these 25 crashes involved seniors between the ages of 65 and 75.

In considering crash data from other, more rural municipalities, it should be noted that crash rates are derived from a smaller base. Of the 257 crashes involving seniors throughout Tioga County over the five-year period, 2 were in Tioga Borough, 5 were in Blossburg Borough, 16 in Mansfield, and 25 in Wellsboro.

Figure 8
Percent of Total Crashes Involving Drivers Age 65+, 2003-07



Source: PennDOT Bureau of Highway Safety

Wellsboro Borough police record the non-reportable crashes that they respond to. These crashes totaled 57 in 2006, and 74 in 2007. For 2008, there have been 34 to-date[3], although this number includes both reportable and non-reportable crashes. Borough police have reported on the frequency of rear-end crashes along the commercial area of Tioga Street by the bowling alley and by George's Restaurant. These areas are characterized by free access to adjoining commercial development. The borough currently does not have an access management ordinance regulating the creation of points of access to a roadway.

Map 2 shows the spatial distribution of reportable crashes within the borough for the five-year period ending 2007. From Map 2, it is easy to see a crash cluster at US 6's intersection with Charleston Street, and along East Avenue.

[3] July 16

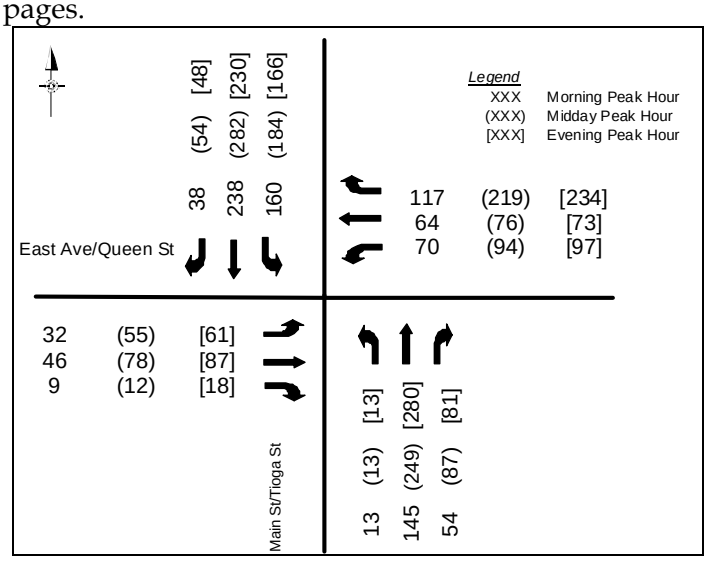
Aaron – Insert Map 2 here

Turning Movement Counts

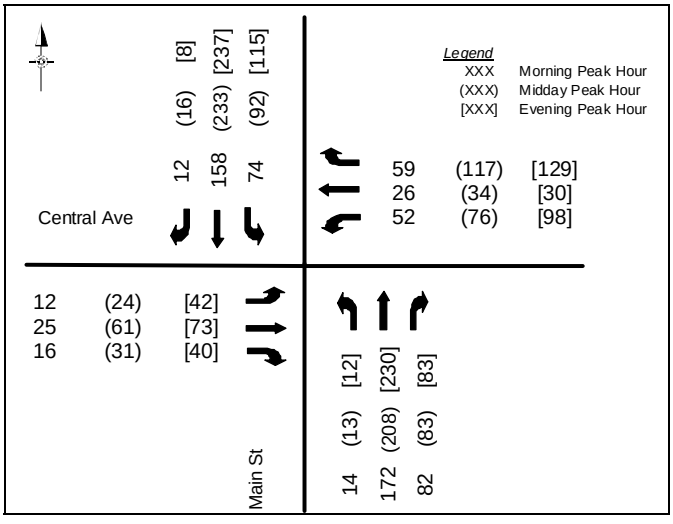
On July 9-11, the study team conducted manual turning movement counts at the following locations in the Borough of Wellsboro:

1. East Avenue/Queen Street and Main Street/Tioga Street
2. Main Street and Central Avenue
3. Grant Street/McInroy Street and East Ave
4. Grant Street and Central Avenue
5. Tioga Street and Charleston Street.

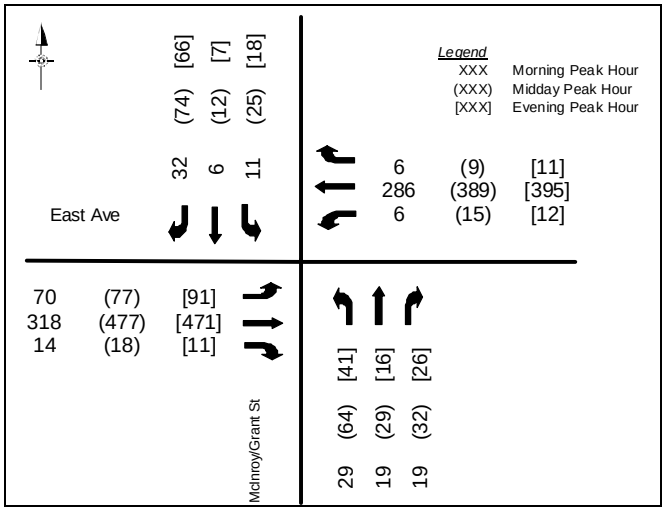
Intersections 1 through 4 above are signalized. Intersection 5 is unsignalized. The turning movement counts were conducted between the morning period of 7:00 to 9:00; the mid-day period of 11:00 to 1:00; and the evening period of 3:30 to 5:30. The peak hour count summaries are on the following pages.



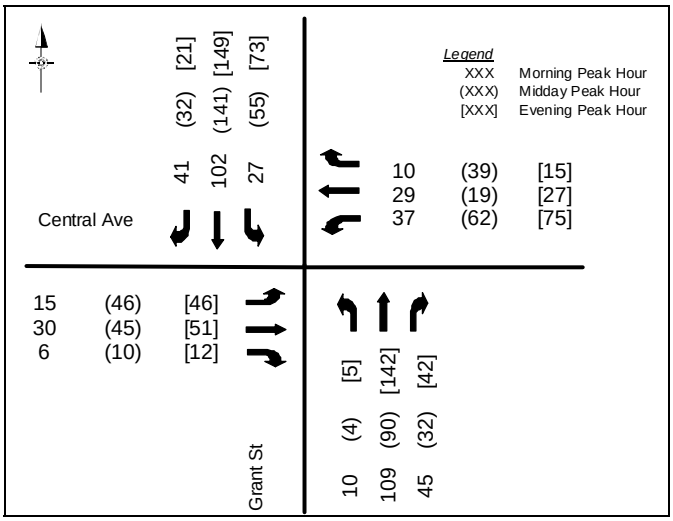
Intersection 1 Count Summary: East Avenue/Queen Street and Main Street/Tioga Street



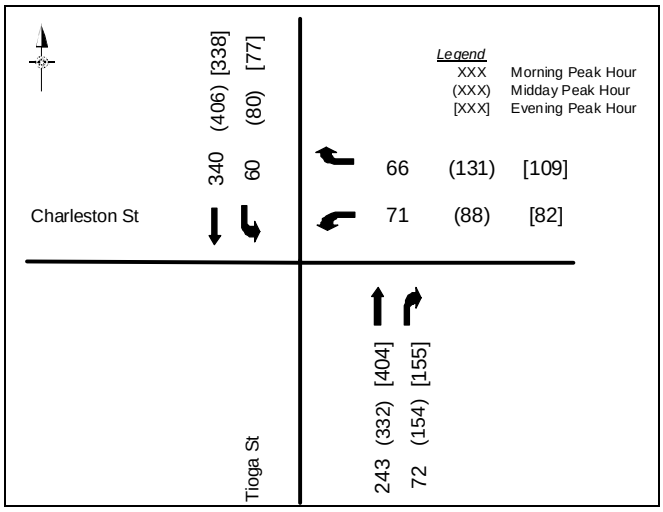
Intersection 2 Count Summary: Main Street and Central Avenue



Intersection 3 Count Summary Grant Street/McInroy Street and East Ave



Intersection 4 Count Summary Grant Street and Central Avenue



Intersection 5 Count Summary: Tioga Street and Charleston Street

The traffic signal operation is summarized below:

- **Intersection 1:** Actuated four-phase operation with southbound protected/permitted left-turn phase; northbound/southbound through phase; eastbound/westbound through phase; exclusive pedestrian phase. Additionally, No Turn On Red restrictions are in place for all approaches.
- **Intersection 2:** Pre-timed two-phase operation with northbound/southbound through phase and eastbound/westbound through phase.
- **Intersection 3:** Actuated four-phase operation with northbound and southbound split phasing; eastbound/westbound through phase; exclusive pedestrian phase. Additionally, No Turn On Red restrictions are in place for the eastbound and westbound approaches.
- **Intersection 4:** Actuated two-phase operation with northbound/southbound through phase and eastbound/westbound through phase. Additionally, No Turn On Red restrictions are in place for the northbound and southbound approaches.
- **Intersection 5:** Presently not signalized**.**

In addition to counting vehicular traffic, pedestrians were also counted. Pedestrian crossing traffic is summarized in Table 9, below. These volumes also include bicycle traffic if the bicyclist used the sidewalk and crosswalks. The most frequent example of this was children on bicycles.

Table 9
Pedestrian Volumes

Intersection	Morning Pedestrian Activity		Mid-Day Pedestrian Activity		Afternoon Pedestrian Activity	
	Peak Period (7:00-9:00)	Peak Hour (Variable Times)	Peak Period (11:00-1:00)	Peak Hour (Variable Times)	Peak Period (3:30-5:30)	Peak Hour (Variable Times)
1	64	41	220	139	201	126
2	51	39	187	107	175	100
3	37	21	15	6	32	11
4	25	15	7	3	14	3
5	1	1	0	0	32	13

The pedestrian crossing volumes in the table above are the total for the entire intersection. Raw traffic and pedestrian volume data, including pedestrian crossing data by intersection leg, are shown in Appendix X.

Intersections 1 and 2, the two signalized intersections along Main Street in the downtown district, had the most observed pedestrian activity during the count periods. By observation, many of the pedestrians at Main Street and East Avenue went to or came from the Diner, as

well as several other local businesses. Many of the pedestrians at Main Street and Grant Street went to or came from the court house. There also appeared to be many people walking for health and wellness purposes.

During the data collection period, significant queuing was noted in the northbound direction of Intersection 1, East Avenue and Main Street. At times, traffic queues extended to the intersection of Main Street and Central Avenue. Traffic queues were also observed in the eastbound direction at East Avenue and Grant Street.

The frequent actuation of the pedestrian phase at the East Avenue intersections with Main Street and Grant Street contributes to traffic queuing.

It was also observed that most pedestrians crossing at the traffic signals used the pushbuttons to actuate the signals, but would not necessarily wait for the pedestrian phase at the traffic signal. At Main Street and East Avenue, pedestrians were commonly observed crossing during the vehicular traffic phase parallel to the crossing direction. When this occurred, the exclusive pedestrian phase would still occur. Traffic would be stopped for the entire length of the pedestrian phase. Motorists appeared to be impatient when they were stopped for no pedestrian traffic. This was evidenced by motorists revving their engines, and advancing forward of the stop line during the pedestrian phase. At the intersection of Central Avenue and Main Street, pedestrians frequently crossed during the conflicting vehicular phase. This could be due to the lack of pedestrian accommodations at the signal.

At East Avenue and Main Street, northbound right-turning vehicles were observed passing through or left-turning vehicles. As shown in the image at right, most of the roadway width is used when this occurs, particularly when vehicles are parked in the area.

The frequent actuation of the pedestrian phase at the East Avenue intersections with Main Street and Grant Street contributes to the queuing observed.

Signal Upgrade Considerations

The elimination of the exclusive pedestrian phase at the intersections of Main Street and Grant Street on East Avenue would improve the operations at these intersections. As an alternative, a Lead Pedestrian Interval (LPI) can be considered. While both solutions are viable, the lead pedestrian interval can reduce vehicular delay versus an all pedestrian phase. A comparison of the two phasing alternatives is shown in Table 10, below.

Table 10
Signal Upgrade Comparison

Concept	Exclusive Pedestrian Phase	Lead Pedestrian Interval (LPI)
Description	▪ Pedestrians received a dedicated phase which is typically timed to allow them to cross at least one leg and in some cases diagonally.	One practical solution to this problem is to program the traffic signals to allow the pedestrian to begin crossing before the vehicle traffic on the parallel street is given the green light. This is commonly referred to as a leading pedestrian interval (LPI) which lasts for 3-4 seconds. Pedestrians and motor vehicles are separated in time by providing a leading pedestrian interval, which permits pedestrians to gain a head start before turning vehicles are released.
Pedestrian Impacts	▪ Pedestrian movements occur when vehicular traffic is halted. ▪ Pedestrian delays can actually increase vs LPIs if the pedestrian arrives just after the exclusive ped phase.	▪ Pedestrians enter traffic early before vehicular traffic to promote visibility; however, they move concurrently after the lead pedestrian interval expires.
Traffic Impacts	▪ Traffic is delayed while pedestrian movements take place. Along East Avenue, this is approximately 20 seconds.	▪ Traffic is delayed for 3-4 seconds per direction (E/W and N/S) for lead pedestrian intervals.
Other Considerations	▪ By field observation, pedestrians typically did not cross diagonally. This may in part be due to the absence of diagonal pedestrian signal heads.	Research has shown that this treatment is associated with a decrease in pedestrian/motor vehicle conflicts and an increase in the percentage of motorists that yield right of way to pedestrians. This study examined the influence of a three-second LPI on pedestrian behavior and conflicts with turning vehicles (Van Houten, Retting, Farmer, Van Houten, & Malenfant, 2000).

Source: Gannett Fleming

Many of the pedestrian signals are becoming less visible due to lensburn. The type of pedestrian signals currently in use are no longer used in new signal installations in lieu of the educational hand/man symbol. Additionally, at the time of the study team's site visit, the bulb appeared to be burned out in at least one pedestrian signal.

The signal at the intersection of Central Avenue and Main Street should be upgraded to provide pedestrian accommodations. This would likely reduce the occurrence of pedestrians crossing with a conflicting signal phase.

As an upgrade consideration, countdown pedestrian signals can be provided at all signalized intersections to provide a better active message to pedestrians crossing at the signalized intersections. Countdown pedestrian signals provide pedestrians with better information, with the exact amount of time remaining to complete the crossing.

Charleston Street Signal Warrant Analysis

Concerns were raised by study stakeholders about the intersection of Tioga Street and Charleston Street. There are concerns about sight distance due to the presence of a business's sign foundation. During the study team's site visit, traffic was observed to queue on the side street. Considering traffic volumes collected for this study, the levels of service vary between C and D by peak hour for Charleston Street traffic turning onto Tioga Street.

The following eight warrants are presented in the Federal Highway Administration's (FHWA) publication Manual on Uniform Traffic Control Devices (MUTCD):

Warrant 1. Eight-Hour Vehicular Volume
Warrant 2. Four-Hour Vehicular Volume
Warrant 3. Peak Hour
Warrant 4. Pedestrian Volume
Warrant 5. School Crossing
Warrant 6. Coordinated Signal System
Warrant 7. Crash Experience
Warrant 8. Roadway Network.

A traffic signal is warranted at US 6's intersection with Charleston Street.

A minimum of one warrant must be met for a traffic signal to be considered for installation. For this study, warrants 1, 2, and 3 were evaluated since they are traffic volume-based warrants. The three warrants that were evaluated are satisfied. Therefore, a traffic signal is warranted. Appendix X shows the signal warrant analysis.

Curb Markings

A common practice within the borough is to apply yellow pavement markings to roadway curbs within certain areas. Typically, these markings are applied to curbs adjacent to segments where on-street parking is restricted, or along certain locations of the curbed median, particularly the nose of the median at intersections. They also appear to be used to define

corner radii through intersections. It was also noted that not all locations where on-street parking is restricted have the yellow markings.

Figure 9
Examples of Use of Yellow Markings

Example of painted median nose (left); painted parking restriction (middle); signed parking restriction (right)

The *Manual on Uniform Traffic Control Devices (MUTCD)*, published by the Federal Highway Administration (2003), states that the correct use of yellow longitudinal pavement markings are:

- The separation of traffic traveling in opposite directions
- The left edge of the roadways of divided and one-way highways and ramps.

In the case of parking restrictions and corner radii, since the yellow markings are on the right edge of the roadway, their use is not correct per the *MUTCD*. The correct method of restricting parking is through the use of signing, as shown in the accompanying image. Additionally, with the presence of lighting, nighttime visibility of intersection corner radii would still be sufficient without painted curbs.

Since the medians are on the left side of traffic, a yellow marking is appropriate. However, the more appropriate location for the marking would be on the road edge instead of the curb itself, similar to the condition shown to the right.

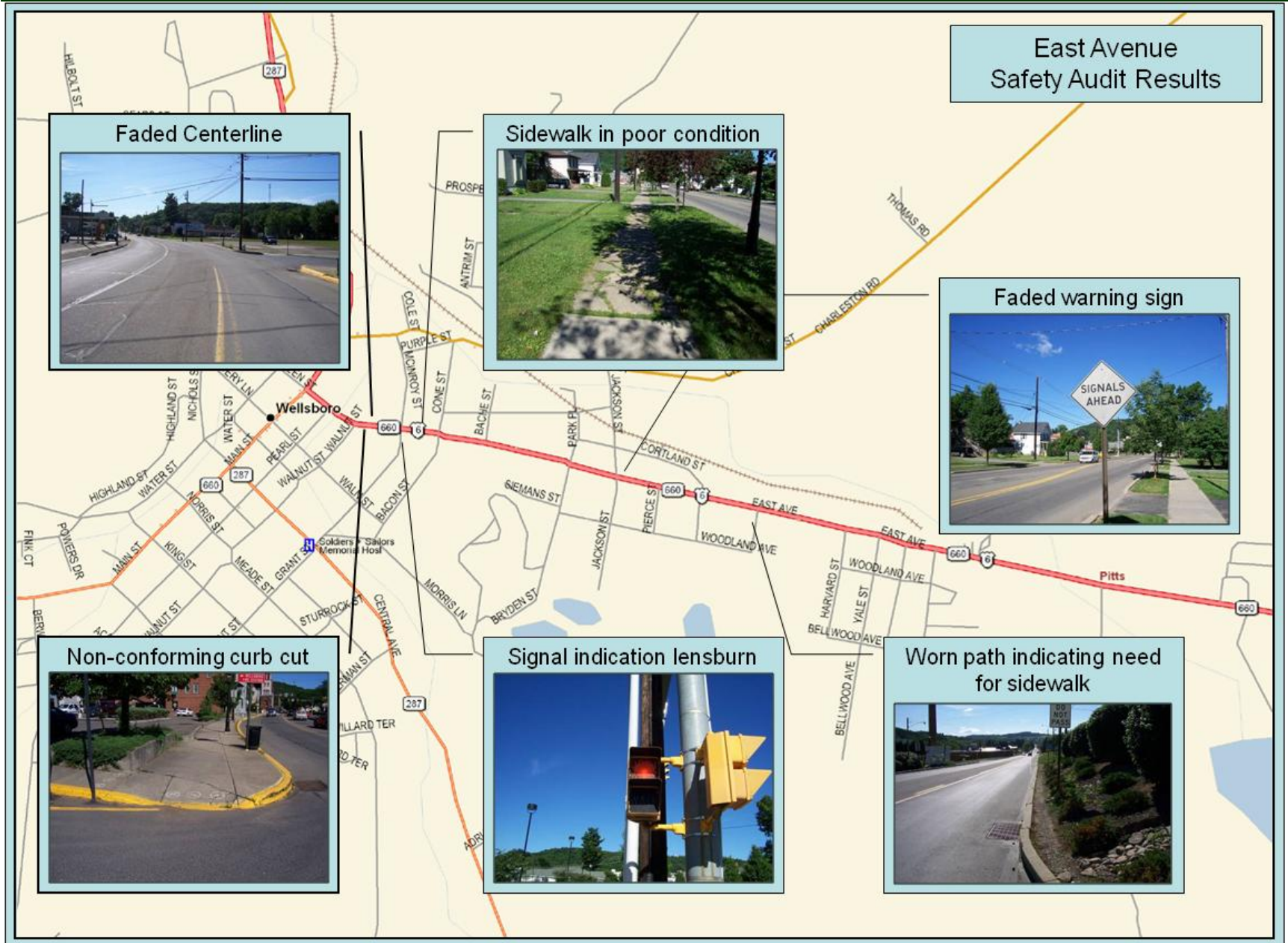
Traffic Safety Audit

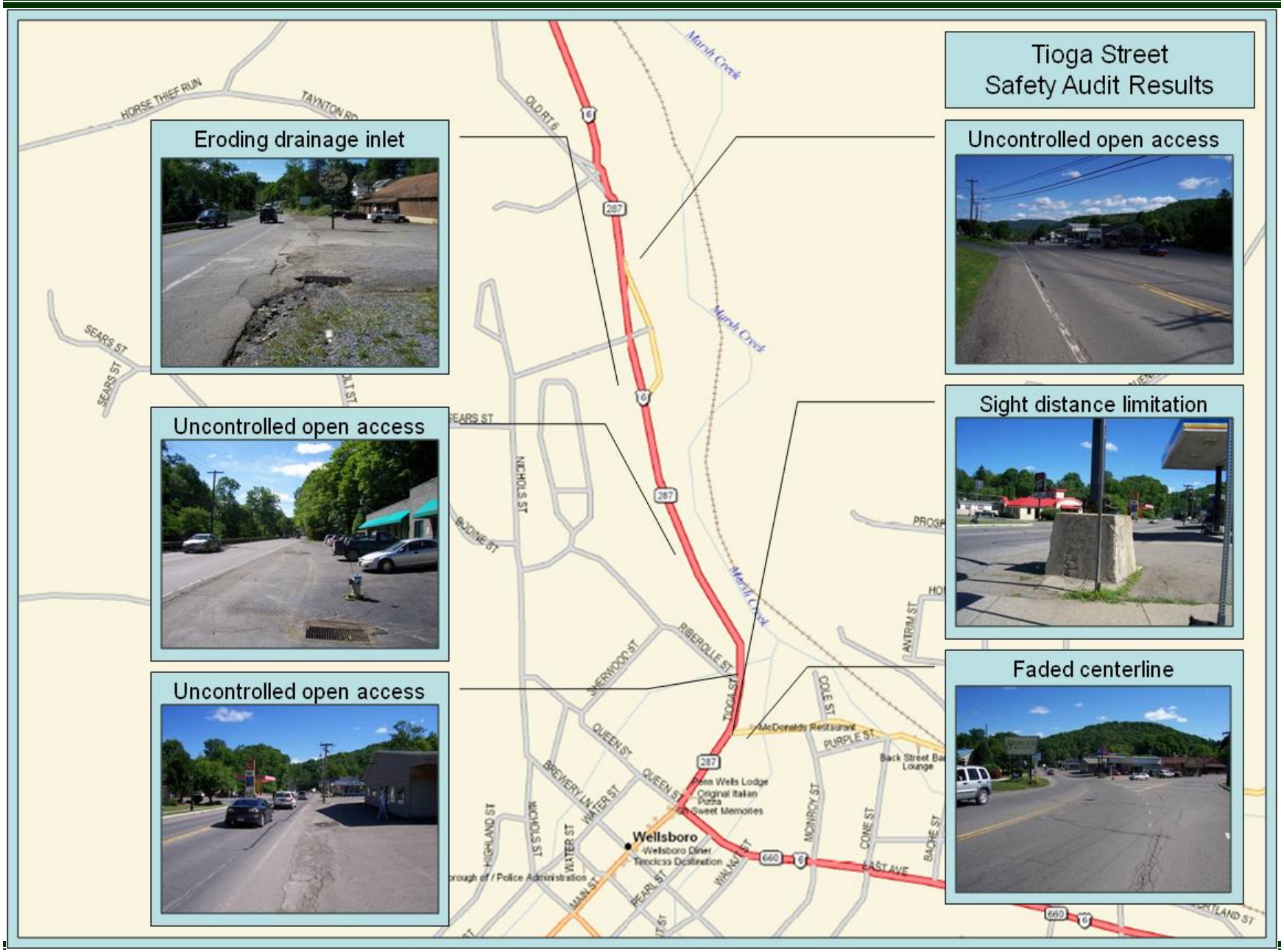
A safety audit was performed for the following roadway segments within the Borough of Wellsboro:

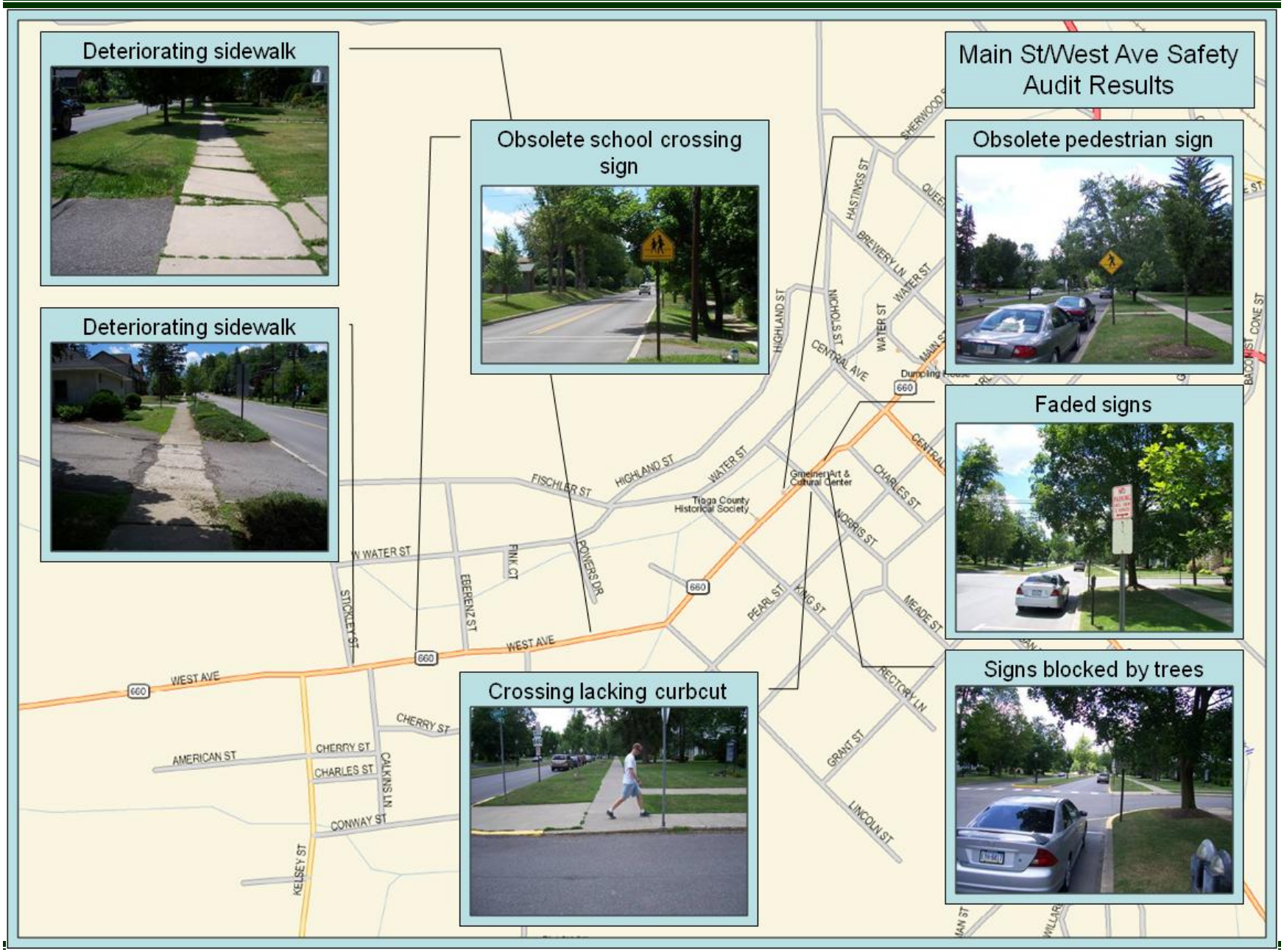
- East Avenue (US 6/ PA 660) from Main Street to Borough line
- Tioga Street (US 6/ PA 287) from East Avenue to beyond Steve's Beverage
- Main Street/West Avenue (PA 660) from East Avenue to Borough line

- Central Avenue (PA 287) from Main Street to Adrian Lane
- Charleston Street from Tioga Street to beyond Jackson Street.

Particular attention was paid to pedestrian-related issues. It should be noted that this safety audit represents the study team's best effort at identifying common existing deficiencies. It is not necessarily an exhaustive listing of all existing deficiencies. The preliminary safety audit results are shown on the following pages.


East Avenue
Safety Audit Results
Faded Centerline
Sidewalk in poor condition
Faded warning sign
SIGNALS AHEAD
Non-conforming curb cut
Signal indication lensburn
Worn path indicating need for sidewalk
Wellsboro
EAST AVE
WOODLAND AVE
CORTLAND ST
MAIN ST
WALNUT ST
CHARLESTON RD
THOMAS RD
Pitts


Tioga Street
Safety Audit Results
Eroding drainage inlet
Uncontrolled open access
Uncontrolled open access
Uncontrolled open access
Sight distance limitation
Faded centerline
HORSE THIEF RUN
TAYNTON RD
OLD RT 6
Marsh Creek
SEARS ST
NICHOLS ST
BUDINE ST
RIBEROLLE ST
SHERWOOD ST
TIOGA ST
COLE ST
PURPLE ST
McDonalds Restaurant
QUEEN ST
BREWERY LN
WATER ST
HIGHLAND ST
MONROE ST
MONROY ST
CONE ST
BACHE ST
EAST AVE
MAIN ST
PEARL ST
WALNUT ST
ANTRIM ST
Wellsboro
Wellsboro Diner
Timeless Destination
Penn Wells Lodge
Original Italian Pizza
Sweet Memories
Back Street Bar Lounge
287
660
6


Deteriorating sidewalk
Deteriorating sidewalk
Obsolete school crossing sign
Crossing lacking curbcut
Main St/West Ave Safety Audit Results
Obsolete pedestrian sign
Faded signs
Signs blocked by trees
WEST AVE
660
W WATER ST
FISCHLER ST
HIGHLAND ST
WATER ST
FINK CT
POWERS DR
EBERENZ ST
STICKLEY ST
CHERRY ST
AMERICAN ST
CHARLES ST
CALKINS LN
CONWAY ST
KELSEY ST
HASTINGS ST
BREWERY LN
NICHOLS ST
CENTRAL AVE
Tioga County Historical Society
Gmeiner Art & Cultural Center
NORRIS ST
PEARL ST
KING ST
MEADE ST
RECTORY LN
GRANT ST
LINCOLN ST

Central Avenue Safety Audit Results

Faded sign; signs blocked by trees

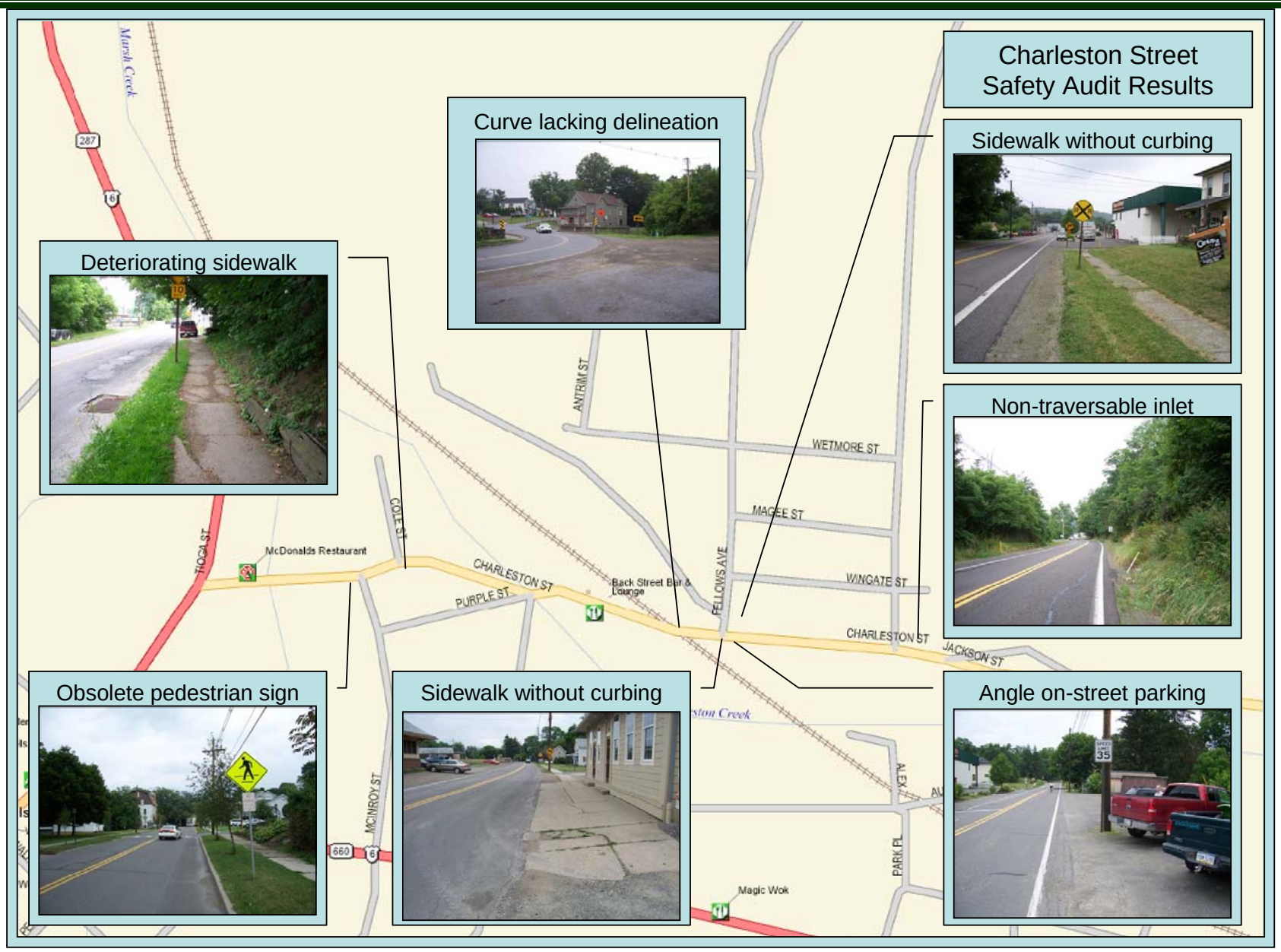
Crosswalk w/o crosswalks and correct signing

Deteriorating sidewalk

Yellow markings to right of traffic

Faded sign

Narrow sidewalk


Charleston Street Safety Audit Results
Curve lacking delineation
Sidewalk without curbing
Deteriorating sidewalk
Non-traversable inlet
Obsolete pedestrian sign
Sidewalk without curbing
Angle on-street parking
Marsh Creek
287
16
ANTRIM ST
WETMORE ST
MAGEE ST
WINGATE ST
CHARLESTON ST
JACKSON ST
PURPLE ST
COLE ST
TIOGA ST
McDonalds Restaurant
Back Street Bar & Lounge
FELLOWS AVE
MCINROY ST
660
PARK PL
Magic Wok

Public Transportation

The Endless Mountain Transportation Authority (EMTA) is the area's primary provider of public transportation services and operates several different types of transit service. Wellsboro is served by three fixed routes that provide scheduled service over a defined route. This service is called the Blue Bus. Three routes that serve the Wellsboro area include:

- **Route 70**, which connects Wellsboro to Mansfield and the Arnot Mall, with one run on even-dated Saturdays.
- **Route 45** makes one run daily on weekdays and connects Wellsboro to the northern Tioga County communities of Elkland and Westfield.
- **Route 30** provides the most frequent fixed-route service to Wellsboro, with Monday through Friday service with five daily trips to Mansfield and Blossburg.

EMTA also operates door to door transportation services for certain people within specialized programs, which are funded by the commonwealth. Those programs include:

- **Senior Shared Ride –** For residents age 65 or older
- **Persons With Disabilities –** For persons with a disability without access to other transportation
- **Medical Assistance –** For transportation to medical appointments
- **Access to Work –** For welfare to work participants
- **Human Service –** For transportation to human service providers.

Participants at the senior focus group meetings indicated a desire for greater information regarding the availability and types of public transportation services, as well as new service (shuttle service to area stores), and facilities (shelters, signing).

School Transportation

The study team interviewed officials from the Wellsboro School District[4] regarding the transportation of students to area schools. It is noted that the school district has approximately 1,500 students and the vast majority (approximately 1,100 to 1,200) of them are bused to school. All children that live within 1 ½ miles of their school are not provided with busing, unless they live along a route that is hazardous for walking. Younger students that are not bused either walk to school or are dropped off by parents. Students in 11th and 12th grade serve as crossing guards for those walking.

At the high school, many students choose to drive themselves and others to school. This can cause some parking problems at the high school building. Traffic congestion has also been noted near the elementary schools as pedestrians, cars, and buses all interact. This congestion

[4] Cindy Boyce, Transportation Coordinator

has been lessened in recent years with the installation of a bus loop that helps segregate bus traffic from other vehicles.

Future project phases will be coordinated with the *Safe Routes to School* grant initiative that has recently been secured.

Senior Citizen Mobility

Senior citizens often have higher requirements of the transportation system than younger members of the community. When driving, their reaction times are not as fast as when they were younger and their eyesight may be less keen. There is a need to accommodate these differences by building extra margins of safety into the roadway system and placing signs in the most visible locations possible. When walking, especially if using a cane or walker, seniors are more likely to be hindered by sidewalks that are uneven, cracked, or missing. Those in wheelchairs face similar problems. Similarly, seniors may be dependent on transit for trips to destinations to which they cannot walk.

Accordingly, the input from seniors in Wellsboro is critical to understanding the deficiencies of the current transportation system in the borough. A system that has been designed to meet seniors with their greater demands will result in an increased benefit for all users.

To get this vial input on the transportation system from seniors' point of view, two events were held at facilities operated by the Tioga County Housing and Redevelopment Authority on July 16, 2008. These events, held at Park Hill Manor and Pinnacle Towers, were designed to understand the challenges that the existing transportation system places in front of these citizens. The issues collected during these listening sessions are summarized below.

Pedestrian Issues

- Crossing the street at Rite Aid (Grant Street/McInroy Street/East Avenue) can be difficult for several reasons: drivers infrequently yield to pedestrians, the offset intersection makes it difficult for pedestrians to judge if a car is turning, and motorists speed through the intersection.
- The intersection of Tioga Street, Charleston Street, and Main Street is very difficult to cross. Many people avoid crossing the street at this intersection.
- Sidewalks throughout the borough are bumpy and difficult to traverse.
- No winter maintenance performed on sidewalks. Residents often walk in the streets in winter because they have been cleared of snow and ice.
- The intersection of Grant and Waln Streets is perceived to be unsafe because there is significant cut-through traffic on this neighborhood street, and motorists do not always come to a complete stop at the intersection.
- Several bridges over the Morris Creek and Kelsey Creek are higher than the approaching sidewalk, making it difficult for those with walkers or wheelchairs.
- Speeding is a general issue throughout the borough.

- The area near McDonalds is unsafe for pedestrians because of poor sidewalk conditions, speeding cars and turning movements into and out of the area businesses.

Public Transportation Issues

- EMTA doesn't provide afternoon service, therefore there is a limited timeframe in which to make medical appointments.
- The EMTA Blue Bus schedule is inconvenient because of long wait times between buses.
- Bus drivers do not allow shopping carts on the buses, limiting the amount of groceries that residents can buy on a trip.
- There is no way to go to doctor on short notice – 24 hour advance notice is required by PennDOT in order to help providers "group" their trip making.

Driver Issues

- There are potholes in many streets
- It is difficult to pull onto US 6 from Wellsboro Plaza and other nearby businesses. There is a large amount of traffic on US 6 with few breaks in the flow.
- Bacon Street is one way and many motorists go the wrong way on the street.
- Speeding is an issue borough-wide.
- Motorists often don't stop for stop signs, but merely roll through.
- Turning onto Central Avenue from Pearl Street is difficult. The sight distance is poor due to cars parked along Central Avenue.
- Turning out of the Pinnacle Towers driveway can be dangerous. Motorists come down Charleston Street very quickly.

Common Destinations

- Post Office
- Hospital
- Medical and dental offices
- Churches
- Pharmacy
- Grocery Store
- Wellsboro Plaza

Rail Freight

The area is blessed to have rail freight service through the Wellsboro and Corning Railroad. This shortline serves as a switching carrier for the Class 1 railroads of Norfolk Southern and Canadian Pacific. The line is 35 miles long, connecting shippers and receivers in Wellsboro with Norfolk Southern's Southern Tier line and yard in Gang Mills, NY. The line has been owned by Growth Resources of Wellsboro (GROW) since 1993. Until December 2007, the line was

operated as part of the North Shore & Affiliated group of railroads. The line (which includes the scenic Tioga Central Railroad) is currently operated by the Myles Group of Exton.

Since its ownership under GROW, the line traditionally served three major customers: Cornell Brothers Agway in Middlebury Center, and Osram Sylvania and Eagle Family Foods in Wellsboro. The closure of Eagle Family Foods in February 2005 had a dramatic impact on the line's total carload counts. In the case of Osram Sylvania, the company and its 180 jobs could not survive in Wellsboro without rail freight service.

Passenger Rail Excursions

Since its beginnings in 1992, the Tioga Central Railroad has provided passenger excursion service on the line, which has had a significant impact on the tourism industry locally. Passenger excursions typically operate on weekends when freight isn't moving although during times of additional runs (as during the fall foliage season) the excursions must defer to freight movement. Ridership has grown from approximately 10,000 at its inception to over 20,000 during the 2002 season to a total of 15,046 in 2006. The company's rolling stock and equipment includes three locomotives and a half dozen passenger cars.

Aviation

In operation since 1940, the Wellsboro/Johnston Airport in Delmar Township is one of the principal airports in the Northern Tier, with 14 based aircraft*. Current annual aircraft operations are comprised mainly of local and itinerant general aviation operations. An estimated 8,100 local general aviation, 1,058 itinerant general aviation, 68 air taxi operations, and 48 military operations comprise the airport's annual operations. The general aviation facility is used by businesses for fuel, repair and air taxi services, and also supports recreational and pleasure flying. (The seasonal nature of the airport's use is evident as demand spikes during the summer months of July and August.) The airport is able to accommodate small aircraft with wingspans less than 49 feet.

All of the airport's major facilities, including runway, apron and terminal facilities, have been rated as being in "good" condition, meaning that the condition of these facilities are presumed to be adequate throughout the next five years. The airport property includes a 7,200 square foot, 6-unit T-hangar, which had been rated as being in "poor" condition, yet the authority secured a local grant within the past year to replace the roof.
In 1995, the state evaluated the potential for improvements at the airport by having a master plan prepared. From that plan, the airport's runway was extended from 2,200 to 3,600 feet in 1996, and additional hangers, terminal building and equipment storage buildings were built. Snow removal equipment was also purchased. Lights were also added to the runway so pilots could make night operations.

* The number of based aircraft at the airport has declined from a decade high of 19 in 1994-95 and has remained constant at 14 over the past five years. Based aircraft is an important component in determining existing and future airport activity.

At one point, the airport was the sole remaining airport owned by the state. From that, Wellsboro and Delmar Township agreed to form the Grand Canyon Airport Authority, which took ownership of the airport on September 25, 2001. Until recently, the airport carried the same name as the authority, but was changed to its current name of "Wellsboro/Johnston Airport".

The airport is served by PA 362 and SR 3029 (Dexter Road), both relatively narrow country roads. If any commercial development were to take place adjacent to the airport, these roadways would need to be improved.

For a general aviation facility, Wellsboro is a marginal airport in its ability to break even. A major challenge for the airport will be raising the local match needed when grants are awarded. Airport officials cite the difficulty in fund raising for small, rural airports, and, with the exception of Roger Penske and Trucklite, not many area industries are using it. There is rare use of freight movement at the airport, freight movement typically involving some medical or transport use. Medical helicopters have used it despite the availability of a helicopter pad just south of Wellsboro. DCNR also uses it for spraying. The airport at one time provided charter flights over the PA Grand Canyon but this practice has ceased with the need for $10 million in liability insurance. The authority concedes it could possibly work with airport officials in Elmira in chartering these flights.

Review of Other Planning Documents

There have been a variety of other planning studies completed prior to this mobility analysis. The study team has reviewed these documents for their relevance to the current study and from the standpoint of how they can inform existing conditions, trends and issues. The studies and corresponding documents were recommended for review by the project advisory committee and include:

- The Tioga County Enterprise Zone Business Development Strategy
- Wellsboro Elm Street Plan for the East Avenue Neighborhood
- Tioga County Comprehensive Plan
- PAWilds Planning Study
- PAWilds Design Guide
- Borough zoning ordinance
- Borough subdivision and land development ordinance.

Tioga County Enterprise Zone Business Development Strategy

In August 2007 a business development strategy was developed for Tioga County that was completed as part of the Enterprise Zone Program of Pennsylvania's Department of Community and Economic Development. To be eligible for an Enterprise Zone a municipality or group of municipalities must be economically disadvantaged in comparison to other parts of the state. The designation of Enterprise Zones then allows for the creation of plans and strategies for business support and development within those zones. Areas within the zones are also eligible for grants and loans from DCED.

The Tioga County Enterprise Zone and Business Development Strategy contains the following points relevant to this mobility analysis:

- Downtown vitality is an attraction to both knowledge workers and startup companies.
- Young educated knowledge workers are attracted to vibrant urban environments containing historic architecture, locally owned shops, and an openness to new and diverse ideas. They are drawn to areas that couple these urban amenities with nearby active outdoor recreation, such as jogging paths, hiking and biking trails and rock climbing destinations.
- Wellsboro is included in Enterprise Zones 11A and 11B. These zones are targeted for increased industrial uses.
- Central business districts of Tioga County's boroughs should focus on business support and professional services as well as shops, and restaurants.

- Downtown Wellsboro is a prime location for 2nd floor housing and small information technology companies.
- The percentage of county workers who walk to work and work at home is higher than the statewide average. Travel times to work are lower for the county than the state.

	Tioga County	Pennsylvania
Walk to work	5.7%	4.1%
Work at home	5.2%	3.0%
Mean travel time to work	23.1 minutes	25.2 minutes

Source: US Census

Wellsboro Elm Street Plan for the East Avenue Neighborhood

Completed in June 2007, the Wellsboro Elm Street Plan for the East Avenue Neighborhood is a planning document funded through the Elm Street Program at the Pennsylvania Department of Community and Economic Development. The Elm Street Program is designed to complement the Main Street Program, also run by DCED. While the Main Street Program focuses on revitalizing downtown business districts, the Elm Street Program assists residential and mixed use areas that are adjacent to business districts. The goal behind the Elm Street Program is to provide vibrant attractive neighborhoods that complement and support a revitalized business district.

This Elm Street Plan for Wellsboro's East Avenue Neighborhood contains a number of items that can be helpful and inform this analysis. The plan identifies the following deficiencies:

- Streets with limited or no sidewalks and narrow rights-of-way
  - Charleston Street
  - Cortland Street
  - Jackson Street
  - Park Place
- Streets lacking trees
  - Jackson Street
  - Park Place
  - Austin Street – from Park Place to Jackson Street
  - Cortland Street
  - Charleston Street – east of Cone Street
  - Woodland Avenue
- Charleston Street is heavily travelled by vehicles and lacks adequate pedestrian facilities for the volume of traffic. Charleston Street is a major linkage between the East Avenue neighborhood and the Central Business District.

Two of the goals contained within the plan are also applicable to this study:

- Goal #2 – Improve pedestrian safety and the ease of pedestrian movements within the neighborhood and throughout the Borough. Objectives include:
    - A traffic and pedestrian mobility analysis should be pursued for the borough.
    - Devise a plan for the placement of traffic calming techniques and develop a funding scenario for developing the solutions.
    - Identify key pedestrian and traffic conflict points.
    - Determine the location of major pedestrian destinations and missing links in pedestrian facilities.
    - Establish a network of interconnecting pedestrian routes to reach those major destinations.
    - Integrate traffic calming techniques in conjunction with streetscape improvements.
    - Use the Wellsboro Chamber's Enhancement Committee as a community group to plan this activity.
    - Establish implementation priorities based on likely funding scenarios
    - Integrate pedestrian design issues into the land development process
- Goal #3 – Address the public infrastructure needs of the East Avenue Neighborhood, including roadways, storm sewers, curbs, sidewalks, and street trees. Relevant Strategies include:
    - Utility Systems – Sanitary and storm sewer separation is required for:
        - Park Place
        - Jackson Street
        - Cortland Street
        - Purple Street
        - Woodland Avenue
        - McInroy Street
    - Road Network – Major road and sidewalk reconstruction is required for:
        - Jackson Street
        - Park Place
        - Cortland Street
        - Purple Street
        - McInroy Street from East Avenue to Purple Street
    - Sidewalks and Curbing – Sidewalks are totally lacking for:
        - Bache Street from East Avenue to Austin Street
        - Charleston Street from Park Place to Jackson Street
    - Sidewalks are also lacking for the following streets where right-of-way widths are inadequate to provide for the without obtaining additional right-of-way.
        - Park Place
        - Cortland Street
    - Street Trees – Street trees could be improved on the following streets, provided that adequate right-of-way and clearance from yard trees is available:
        - Jackson Street
        - Park Place
        - Austin Street from Park Place to Jackson Street
        - Cortland Street
        - Charleston Street east of Cone Street

- Woodland Avenue

Tioga County Comprehensive Plan – Public Survey

As part of an updated comprehensive plan for Tioga County, residents were surveyed in spring 2003. The survey dealt with a wide range of land use, transportation, economic development, and municipal service issues. The survey was broken out by individual municipalities, which enables the individual survey results from Wellsboro to be considered as part of this study.

While the actual number of survey questions that are relevant to this mobility analysis are limited, the following points can be gleaned from the survey.

- **Planning Priorities** - The survey asked respondents to rate how high of a priority they felt should be placed on a series of 36 issues in the next 5 to 10 years in order to preserve or enhance the quality of life in Tioga County. When the surveys were tallied, the 36 issues were ranked high to low based on survey responses. Two of the issues are transportation related and follow:
  - Road Improvements - ranked #9
  - Regional Bus Service - ranked #28

- **Rating of Services** – Survey respondents were asked to rate the quality of existing services and then indicate if they would be willing to pay more in order to improve the quality of the service. Two service rankings are applicable here:

  - Quality of Road Maintenance
    - Excellent 1.9%
    - Good 26.5%
    - **Fair 44.2%**
    - Poor 21.9%
    - No Answer 5.4%

  - Would you pay more for improved road maintenance?
    - Yes 29.4%
    - No 34.2%
    - **No Answer 36.3%**

  - Access To and From Area
    - Excellent 8.5%
    - **Good 57.3%**
    - Fair 19.6%
    - Poor 6.7%

  - Would you pay more for improved access to the area?
    - Yes 10%
    - **No 48.7%**
    - No Answer 41.3%

Pennsylvania Wilds Planning Study – December 2007 Draft

The Pennsylvania Wilds Planning Study is the primary planning document associated with the Pennsylvania Wilds Initiative. This document is very broad in scope, covering all 12 counties within the Pennsylvania Wilds. As such, it concentrates on creating a clear vision of the future of the Pennsylvania Wilds region and the types of improvements that must be made to establish the area as a premier tourist destination.

The study specifically mentions Wellsboro as a community that will be directly impacted by increased tourism as a result of the initiative, and that the transportation system will need to be maintained and upgraded as required to accommodate that increase. Additionally, US Route 6 is noted as a major transportation corridor through the study area, and one of several roadways that are proposed for inclusion in the network of Pennsylvania State Byways.

Pennsylvania Wilds Design Guide

The Pennsylvania Wilds Design Guide was developed by T&B Planning as a part of the Pennsylvania Wilds Initiative. The goal of the design guide is to present a comprehensive and consistent set of design guidelines that can be applied to the Pennsylvania Wilds region to assist communities in reaping the benefits of change and growth while protecting their uniqueness and character. It shows, in graphical format, how to preserve and enhance the communities of the region while also promoting the aspects that are common to and knit together the larger Pennsylvania Wilds 12-county territory.

All sections of the design guide have some relevance to and can inform the ongoing improvement of Wellsboro by its residents and officials. Three sections of the design guide, however, are particularly relevant to this enhancement strategy and mobility plan. These sections include:

- Section 3.D – Residential Neighborhoods Best Practices
- Section 3.E – Town Centers Best Practices
- Section 3.G – Roadway Corridors Best Practices.

Zoning Ordinance

The zoning ordinance controls the location of various land uses throughout the borough as well as the area and bulk of improvements that may be built. The current ordinance dates from June, 2004. The zoning ordinance contains the following zoning districts:

- Rural Residential District
- Residential Town District
- Historic Residential District
- Central Business District
- Hospital District

- Highway Commercial District
- Commercial Manufacturing District.

The ordinance regulations appear to be generally reflective of the existing lot sizes and buildings and allow flexibility in some regulations, such as setbacks, roof pitch and building orientation, to mimic the surrounding buildings. A more complete review of the ordinance would involve verifying if the lots and buildings that exist today could be constructed using the regulations in the zoning ordinance. The zoning ordinance of a municipality that is largely built out, such as Wellsboro, should contain regulations that would allow the development of the borough in its existing form.

Subdivision and Land Development Ordinance

A Subdivision and Land Development Ordinance (SALDO) is used to define the process by which land can be subdivided and developed, state what information must be shown on subdivision and land development plans, and provide design standards for such features as roadways, storm water management facilities and water and sewer utilities. Wellsboro has a SALDO in place, which was adopted in June 2004.

Wellsboro's SALDO appears to be comprehensive and addresses all requirements of the Pennsylvania Municipalities Planning Code. The ordinance, and especially some of its design standards, however contain requirements that are more suburban in nature and are out of character for the borough's existing urban form. A review of the SALDO revealed the following:

- **Section 504** The roadway design standards should be more nuanced and reflective of the borough's urban nature.
- **Section 504.A – Street classification** The classification definitions for collector and arterial streets do not match existing conditions in the borough. Wellsboro has both collectors and arterials running through downtown which have speeds below the 35 MPH criteria stated in the existing ordinance. The definitions should recognize that Wellsboro is an urban area and not a developing suburban area.
- **Section 504.D – Street Alignment** The horizontal curve standards located here are more suburban in nature. These standards could make it difficult or impossible to create a new development that respects the existing grid street pattern.
- **Section 504.F – Street Intersections** The required spacing of 800' between local street intersections along collector and arterial roads is too large and would not allow portions of Wellsboro to be built in its current form.
- **Section 504. H – Alleys and Driveways** This section prohibits alleys and is inappropriate for a historic borough such as Wellsboro where alleys would integrate well with the existing fabric of the community.
- **Section 505 – Curbs and Sidewalks** Curbs and sidewalks should be required almost everywhere within the borough. The current ordinance exempts areas with lot widths greater than 100 feet, which would likely include any newly developed commercial lot and some new residential lots.

- **Section 508 – Blocks and Lots** The maximum block length of 1,600 feet is excessive for this urban setting.
- **Section 510. H – Trees** Street trees are ideally located between the curb and sidewalk to provide maximum aesthetic benefit to the street. The ordinance currently requires trees to be between the sidewalk and the building setback line.

Moving from Issues to Recommendations

The issues summarized within this report will be vetted with the project advisory committee before being finalized and presented to the public during the study's first public participation event. The study team will weigh the input received from the public and other stakeholder groups (such as school children) in the development of final study recommendations.

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