

November 19, 2019

TPD# LBBO.00001



BOROUGH OF LEWISBURG PENNSYLVANIA



Market Street Corridor Study Lewisburg Historic District

*A Public Safety, Public Health, Environmental,
and Transportation Corridor Study for Market
Street (PA Route 45) Through the Nine Blocks of
the Historic District of Lewisburg, PA*



TRAFFIC PLANNING AND DESIGN, INC.

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ACKNOWLEDGEMENTS

Market Street Corridor Study

Borough of Lewisburg, Union County, PA

November 19, 2019

This study, funded by the Borough of Lewisburg, PA and Borough affiliated institutions, organizations, and the Lewisburg community, provides a long- term vision for a safer, healthier Market Street in the Lewisburg Borough Historic District. The study is intended to guide future transportation and land use decisions along this and related corridors and serve as a resource to Lewisburg Borough, Union County, PennDOT, and SEDA-COG.

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FOREWORD

Pennsylvania, throughout its history, has been home to some of the nation's finest places to live. From great cities to tiny cross-roads villages, Pennsylvanians have taken justifiable pride in the constellation of attractive places to call home. However, in the past 75 years, many of the state's smaller communities have struggled to maintain their economic viability and their individual character. Changes in consumer practices, a general move toward urbanization, consolidations in the service sector, the decline of industries linked to specific geography, and profound changes in transportation and traffic patterns have placed great strains on most of the Commonwealth's small to mid-sized villages and boroughs. Only a fraction of such places have been successful in confronting these trends and remaining attractive both to their citizens and to visitors. Remarkable among this group is the Borough of Lewisburg.

Laid out in 1785, Lewisburg, Pennsylvania has not only overcome several major challenges to its survival, it has adapted and flourished. When Lewisburg was incorporated, the Pennsylvania Canal System was the primary way to move goods, and the town's location on the Susquehanna River allowed the establishment of a thriving market community. As the Canal and water-based transportation gave way to rail, the community found a way to adjust and continue to serve the region and its citizens. When automobiles and trucks essentially displaced the rail system, as a way to move passengers and most goods, the Borough of Lewisburg found a way to cope and once again adapt. Although Lewisburg became surrounded by shopping malls, the Downtown Business District, located around and along Market Street, continued to be the home of retailers, eating establishments, churches, professional offices, and essential services such as banks, dentists, barbershops and beauty salons, thus making Market Street the agora of Lewisburg. Through the cooperative efforts of the Borough government, state agencies, civic organizations, merchants, businesses, professional people, a number of institutions (including two hospitals and a university), and a broad segment of the general populace, Lewisburg has been able to maintain its Historic District, and its unique appearance and charm, making it a preferred location that offers numerous commercial and residential options.

However, over the last three decades an additional challenge has confronted Lewisburg. In 1988, when the current Susquehanna River Bridge replaced the former 1912 metal bridge, which had stringent weight restrictions, freight trucks began cutting through Market Street. Year-over-year, the amount of truck traffic on Market Street, which was not intended or designed for such vehicles, has intensified, as a result of ever-increasing truck traffic in the Central Pennsylvania region.

As community concern regarding this increased truck traffic continued to grow in the current century, various formal and ad hoc groups began to formulate solutions. It quickly became apparent that to provide practical and well-reasoned approaches to the problems being encountered, an up-to-date traffic study with reliable data would be needed. Such an enterprise was costly for the Borough Council to consider, and as a result, a group of concerned citizens formed a grass-roots committee to study the problems caused by increased truck traffic on Market Street. This committee has met with the Borough Council, local, regional, and State agencies and institutions, stakeholder organizations and groups, and has held several public meetings to hear the concerns and comments of community members. This group of concerned citizens raised the majority of the money required for this needed study. Likewise, as part of the Selection and Steering Committee, this group assisted the Borough in selecting the most appropriate traffic engineering firm to collect data and develop a study that could be used to inform the current situation and would also be important for the future.

The following transportation study provides evidence of the increase in truck traffic through Lewisburg's Historic District and highlights the threats to public safety caused by this increase. It provides information

on the current and potential damage to the interiors, exteriors and underpinnings of the 115 historic structures along Market Street that are listed on the National Register of Historic Places. There is also evidence provided of the economic impact on Downtown Lewisburg's business and residential community, due to increased truck traffic. These problems and costs that are caused by the number of trucks on a street not intended or designed for such heavy freight use will need to be addressed.

The safety of the public, the survival of the historic assets, the vitality of the economic structure, and the quality of life for the citizens of this special Historic Downtown Lewisburg community all rest on finding appropriate solutions to the current problem. The obvious first step in developing these solutions is to establish the pertinent facts. The following Study is designed to provide such information.

Judith T. Wagner
Mayor
Borough of Lewisburg, PA

Stephen J. Lindenmuth
Chair of the Steering Committee and
The Market Street Committee



Steering Committee

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Many thanks to Gordon R. Wenzel and the Lewisburg community for photographs included in this Study, to the Bucknell University Small Business Development Center and the Bucknell University Institute for Public Policy for advisory services, and to our many Borough affiliated institutions and organizations.

Borough-Affiliated Institutions and Organizations

Bucknell University (BU)

Bucknell University Small Business Development Center (SBDC)

Buffalo Valley Rail-Trail (BVRT)

Buffalo Valley Recreational Authority (BVRA)

Buffalo Valley Regional Police Department (BVRPD)

Central Keystone Council of Governments (CK-COG)

CommUnity Zone

Evangelical Community Hospital

Geisinger Medical Center

Greater Susquehanna Valley Chamber of Commerce

Lewisburg Arts Council

Lewisburg Downtown Partnership (LDP)

Lewisburg Historical Architectural Review Board (HARB)

Lewisburg Neighborhoods Corporation (LNC): Elm Street, Walk It! Bike It!, Lewisburg River Town Team

Lewisburg Shade Tree Commission (STC)

Market Street Committee (MSC)

Pennsylvania Downtown Center (PDC)

Pennsylvania Historical and Museum Commission (PHMC)

Susquehanna Economic Development Association, SEDA-Council of Governments and Metropolitan
Planning Organization (SEDA-COG MPO)

Susquehanna Greenway Partnership (SGP)

Susquehanna River Valley Visitors Bureau (SRVVB)

The Business Forum, Downtown Lewisburg

Union County

Union County Emergency Management Agency (EMA)

Union County Historical Society (UCHS)

William Cameron Engine Company—Lewisburg Fire Department (WCEC)

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Part 1

Introduction

INTRODUCTION

Project Purpose

The purpose of the Market Street Corridor Study is to assess public safety, public health, environmental, and transportation concerns along Market Street (PA Route 45) in the Historic District of Lewisburg Borough, Union County, PA. The study area consists of a nine block section of Market Street through pedestrian-friendly Downtown Lewisburg, from the intersection of Market Street & US Route 15 to the Market Street Bridge over the West Branch of the Susquehanna River.

By establishing a comprehensive vision of the Corridor, Lewisburg can develop a safer and healthier multimodal transportation network through the nine-blocks of the Historic District, while also preserving the integrity of the historic street network, built environment, tree canopy, and public parks. Most importantly, by reducing conflicts between transportation modes, the recommendations of this report can improve public safety for all roadway users.

A Balanced Transportation Network

Since 2016, PennDOT has implemented a new collaborative planning process, known as PennDOT Connects, to ensure that transportation projects meet the goals and vision of the communities. By working with affected communities early in the project planning process, PennDOT has delivered better outcomes in cities and towns across the state. **Although Market Street is an existing roadway, changes in the regional transportation network have affected the traffic characteristics and negatively impacted the Lewisburg Historic District.** For this reason, the project team sought to bring the PennDOT Connects framework to this multidisciplinary study, in order to develop a community vision for the Corridor.

The Borough's goals for Market Street are aligned with the following objectives of PennDOT Connects, as described in PennDOT Publication 801:

Building partnerships that invest in sustainable transportation. The Borough is seeking a collaborative approach to create a sustainable transportation network in Historic Downtown Lewisburg. This approach brings together community business and organizational leaders, major community institutions (Bucknell University, Evangelical Community Hospital, and Geisinger Medical Center), local government, regional organizations, PennDOT, and regional planning partners, in order to balance regional traffic needs with local safety and health concerns and the sustainability of Lewisburg's Historic District and Historic Downtown.

Leverages resources to improve communities. The unique small businesses, well-preserved historic buildings, and busy sidewalks lining each side of Market Street represent an enormous investment across centuries of public and private resources. This study focuses on what is happening on the "travelways," along Market Street, and how this activity impacts the safety, viability, and sustainability of Market Street's adjacent human, natural, and built environment.

Leads and innovates for a more livable Pennsylvania. Market Street has served as the central gathering place of the surrounding community for generations. Lewisburg is a place where people choose to walk or bike as part of their daily routine. The safety of all roadway users, but particularly of vulnerable road users, is a major focus of this study.

Delivers projects that improve economic competitiveness, access to work, and overall quality of life. Historic Lewisburg is a major generator of economic activity for the entire Central Pennsylvania region,

as well as a center for regional community life and tourism (see Appendix A: “Letters of Support” from Susquehanna River Valley Visitors Bureau and Greater Susquehanna Valley Chamber of Commerce). The goal of this study is to identify how the Borough of Lewisburg, PennDOT, and other state, regional, and local partners can work together to ensure Market Street and the Lewisburg Historic District have a promising and highly sustainable future.

The Role of Market Street in the Community

Within Lewisburg’s historic nine-block Market Street Corridor and street network, there are more than one hundred fifty-four (154) small businesses that serve the region, several of which have been owned by the same families for decades. These small businesses, along Market Street and throughout the Historic District, consist of unique clothing, jewelry, art and gallery shops, antique shops, fine restaurants, vintage taverns, co-work spaces, professional service firms, and specialized eateries that offer residents, university students, and visitors a unique and enjoyable downtown pedestrian shopping, dining, and entertainment experience. Small businesses in downtown Lewisburg are supported by the Lewisburg Downtown Partnership (LDP), which was established through the State’s Main Street program, which is administered by the Pennsylvania Department of Community and Economic Development (DCED) and the Pennsylvania Downtown Center. The Lewisburg Downtown Partnership is dedicated to fostering the continuation and vitality of the Lewisburg business community through its ongoing support and its many annual events, parades, and festivals.

In addition to residents, students, shoppers, diners, and commuters, tens of thousands of visitors travel to Lewisburg, Pennsylvania each year, for a variety of downtown events.

- » Bucknell University, alone, brings tens of thousands of people each year into Lewisburg’s Historic District for Family and Alumni Weekends, admissions interviews, the University’s many well-attended athletic and cultural events, along with its academic, business, professional, and sports conferences and camps.
- » The Packwood House Museum, the William Cameron Engine Company Museum, and the popular new Lewisburg Children’s Museum receive thousands of visitors, for their exhibitions, displays, and educational activities.
- » Annual celebrations in the Historic District such as the Fourth of July Parade, the Spring Arts Festival, the Winter Heart of Lewisburg Ice Carving and Sculpture Festival, the Summer Music in the Park Series (Hufnagle Park) bring people to town throughout the year.
- » A variety of community events, including biking, walking, and river events, along with book launches and signings, artist and gallery exhibitions, contemporary and classic film screenings, and musical performances guarantee steady traffic to town as a destination.
- » The Susquehanna River Valley Visitors Bureau serves Lewisburg and the region, in providing visitors with specific information, brochures, and maps for Lewisburg’s events and celebrations.

Today, as in the past, Lewisburg, Pennsylvania is known throughout the Eastern seaboard, as an educational, recreational, and cultural destination that has carefully preserved its iconic heritage, the human scale of its built and natural environment, and its outstanding late eighteenth, nineteenth, and early twentieth-century architecture. At the same time, Downtown Lewisburg’s Historic District offers residents, students, businesses,

and its tens of thousands of visitors each year, a variety of contemporary shopping, dining, cultural, entertainment, and community experiences.

Even though Lewisburg has many of the resources of a city, it retains the charm and community spirit of a small town surrounded by a pastoral natural landscape of rolling hills with fertile valleys, a scenic river and fresh water streams, and ancestral farms and fields. Lewisburg is recognized by the USDA Forest Service and the National Arbor Day Foundation, as a Tree City USA. In 1995, Lewisburg was designated as fifteenth, from among the 100 Best Small Towns in America (Norman Crampton, *The 100 Best Small Towns in America*, 2nd ed., Macmillan, New York, 1995, pp. 222 and 441).

Letters of Support for the Market Street Corridor Study

Organizations throughout the region and the state recognize the value of the Lewisburg Historic District. Several local institutions and agencies offered their support and the expertise to the planning process. The following organizations have provided letters of support:

- » Bucknell University
- » Evangelical Community Hospital
- » Geisinger Medical Center
- » Greater Susquehanna Valley Chamber of Commerce
- » Lewisburg Arts Council (LAC)
- » Lewisburg Downtown Partnership (LDP)
- » Lewisburg Historic Architectural Review Board (HARB)
- » Lewisburg Neighborhoods Corporation (LNC)
- » Lewisburg Shade Tree Commission (STC)
- » Pennsylvania Downtown Center (PDC)
- » Pennsylvania Historical and Museum Commission (PHMC)
- » Sauers, Dr. Richard A., Western Museum of Mining & Industry, Colorado Springs, CO, former Director, Packwood House Museum
- » Susquehanna River Valley Visitors Bureau (SRVVB)
- » Union County Historical Society (UCHS)
- » William Cameron Engine Company, James J. Blount III, Fire Chief, Lewisburg Fire Department (WCEC)

Letters of support are included in **Appendix A**.

Recent Investments in Lewisburg Historic District and Downtown Lewisburg

The Borough of Lewisburg and the Lewisburg Downtown Historic District has been the recipient of nearly \$40 million dollars of investment since the year 2000. This includes state and federal investments as well as contributions through local partnerships and private donations.

Partnerships with PennDOT have provided investments for a variety of types of projects, such as: several phases of streetscape and safety enhancements along Market Street and other streets throughout the

Historic District, safety studies, railroad crossing safety upgrades, greenway and trail installations, as well as annual Liquid Fuels funding.

Partnerships with the Pennsylvania Department of Community and Economic Development (DCED) have provided opportunities to reinvest and revitalize several downtown Market Street anchor buildings, such as the Campus Theater, the Federal Post Office Building, and the buildings that currently host the Bucknell University Bookstore, the Samek Art Gallery and the Small Business Development Center - all of which are located on Market Street and are multi-use historic buildings listed on the National Register of Historic Places. DCED has further committed to ensuring that Lewisburg maintains a thriving Downtown District by having secured five years of operational support for the Main Street Program organization (Lewisburg Downtown Partnership) and five years of operational support for the Elm Street Program organization (Lewisburg Neighborhoods Corporation). DCED has also helped the Borough advance regional partnerships such as the Buffalo Valley Recreation Authority, Regional Police Department and assisting in the extension of the regional rail trail path through downtown.

FEMA and PEMA have helped advance many floodplain mitigation projects in the Borough including a significant buy-out of properties in the floodway located adjacent to the community's most visible and active park. Once vacated, these properties became municipally-owned and subsequently provided the opportunity for other state agencies to invest in their future. These now-vacated properties allow for the extension of the Buffalo Valley Rail Trail (across Market Street and southward to the Bucknell University campus) and the Bull Run Greenway / Park development, which is collaboratively funded by PennDOT, DCNR and DCED.

In addition to these significant State (and Federal) Agency investments, Lewisburg has had the good fortune to have benefitted from other benevolent partners over the years – institutions, businesses, and individuals. In particular, Bucknell University has been a vital and long-standing partner on many of the above-mentioned endeavors, while, more recently, Evangelical Hospital and Geisinger Medical Center have also become important private institutional partners for Historic Downtown Lewisburg.

Together, the Borough of Lewisburg and its affiliated institutions and organizations continue to stay committed to addressing the many issues of public safety and public well-being in Downtown Lewisburg, while they strive to preserve and enhance the Borough's many historic assets, greenspaces, and infrastructure.

This "Market Street Corridor Study" was 88% funded by private institutional and community contributions.

Part 2

The Lewisburg Historic District and Downtown Business Community

HISTORY OF MARKET STREET

Location and Founding of Historic Lewisburg, Pennsylvania

Historic Lewisburg is located in Central Pennsylvania, compactly nestled between the West Branch of the Susquehanna River and US Route 15, 60 miles north of Harrisburg and 30 miles south of Williamsport, PA.

Lewisburg dates from the late 1760s. It was formally established in 1785, through a recorded plan, filed in the County Seat of Northumberland County by Ludwig Derr. The plan encompassed several tracts of land along the Susquehanna River that Derr had acquired from the William Penn family.

Derr named his new town "Derrstown." The name was later changed to Lewisburgh and then to its contemporary name of Lewisburg. The "main street" of Ludwig Derr's new town was called "Market Street," which continues today as the primary corridor through the Historic District.



Ludwig Derr's 1785 Plan for Lewisburg, Pennsylvania, shown here in an 1873 copy notarized by the then Prothonotary of Union County. On the above development plan, Market Street, side streets, and alleys are all designed and designated.

Lewisburg quickly grew into a commercial and residential center, with hotels, churches and schools. By 1846, Bucknell University had been established, and in 1855, Lewisburg became the county seat and of Union County, which had separated from Northumberland County in 1813.

Thus, by the mid-nineteenth century, Lewisburg had become well-recognized as a regional center for business, finance, government, higher education, and social, religious, and cultural activities, as evidenced today in Lewisburg's impressive public and private historic buildings.

Lewisburg's Nationally Recognized Historic District

The Lewisburg Historic District, which includes much of the Bucknell University campus, was first certified in 1969, by the Pennsylvania Historical and Museum Commission, as "historically significant," according to the requirements of the Historic District Act of 1961. The Historic District was inventoried and formally established by Borough Ordinance on June 26, 1985, along with the Historical Architectural Review Board (HARB), and was included for recognition and preservation under the Pennsylvania Historic District Act and the Municipalities Planning Code, by the Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission. On July 28, 2004, Lewisburg's Historic District was included on the National Register

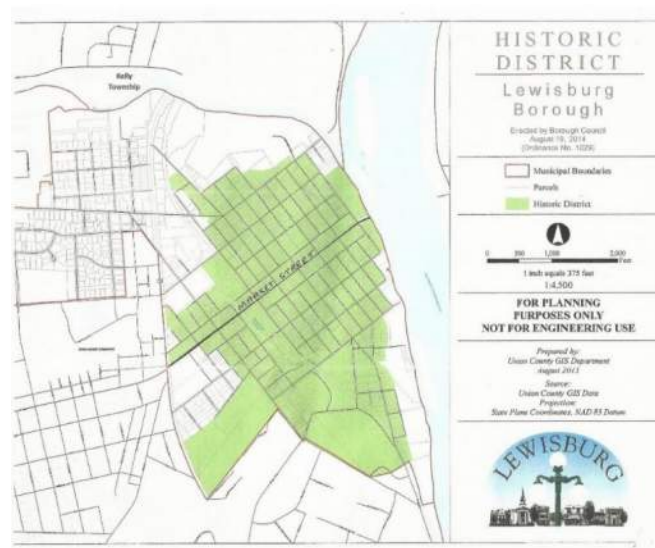
of Historic Places (NRHP), along with its 856 contributing buildings, 11 contributing structures, 2 contributing sites, and 2 contributing objects, which encompass the "Period of Significance", from 1773 to 1953. These buildings are irreplaceable structures that represent key examples of appropriately-scaled architectural and construction styles that were prominent during this 180-year period.

Three of the contributing buildings, are separately honored by individual inclusion on the National Register of Historic Places. These buildings are: the Packwood House Museum (c. 1795), one of the few remaining large log structures in the United States, the 1868 Italianate-style Chamberlain Iron Front Building, and the Reading Railroad Freight Station (1884), which now houses the offices of the Lewisburg Borough Government.

In addition to the dozens of historic and architecturally significant houses, such as the 1857 Jonathan Nesbit home and the 1887 William Cameron home, both of which are on Market Street, there are many impressive public and commercial buildings, within the Historic District. Several of these are: The First Presbyterian Church (1856), the Himmelreich Library (1902), the Lewisburg Hotel (1831), the Union County Courthouse (1855), the Federal Post Office building (1933), and the Campus Theater (1939). The Campus Theater is one of the last single-screen art deco movie theaters in the United States, which, each night of the week, shows first-run, art-house, documentary and classic films, in a state-of-the-art screening environment.

In 2014, Lewisburg's 2004 Historic District boundaries were expanded, by Ordinance of the Lewisburg Borough Council, to include the full nine (9) blocks of Market Street. This expansion made the entire Market Street Corridor through Downtown Lewisburg and the Historic District a "living museum" of late 18th Century, 19th Century, and 20th Century architecture, which embraces Lewisburg's contemporary business and social community.

Through the years, the Lewisburg Borough's Historical Architectural Review Board (HARB) has ensured that the District's historic character has been carefully preserved. Lewisburg's vibrant Historic District is immediately identifiable by its patented, signature three-globe, cast iron lampposts, which date from 1915. These distinctive lampposts illuminate each and every one of the streets in Historic Downtown Lewisburg.



2015 map of Lewisburg's Historic District.

Historic Market Street, Then and Now (1785 to 2019)

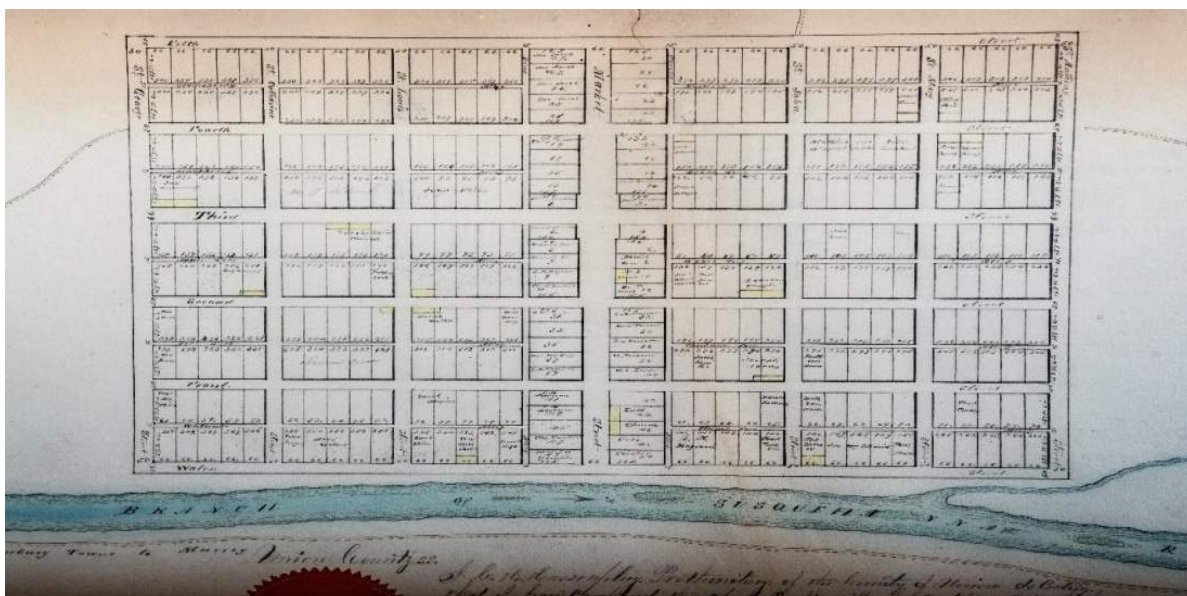
Market Street was designed as the organizational spine and anchor for Ludwig Derr's 1785 "development plan" for the town of Lewisburg. Derr's block and grid design may have been inspired by the original plan for the City of Philadelphia (1693), designed by William Penn and Thomas Holme, the first Surveyor General of Pennsylvania ("Story of Cities #7: Philadelphia Grid Marks Birth of America's Urban Dream," *The Guardian*, March 22, 2016).

Such a classical community vision provided for a symmetrical grid of streets, blocks, and alleyways—all designed to human scale, in order to address basic human and social needs and to foster community cohesion and prosperity.

Lewisburg's formal street and block grid included an appropriate place for all primary community functions—commercial, residential, social, hospitality, educational, religious, recreational, and transportation.

The orderly development of Market Street, as well as all of the Historic District, was envisioned, from the beginning by Derr's 1785 plan, which forecast and then reinforced Lewisburg's growth, as a regional center for commerce, finance, education, and social life.

Along the nine blocks of the Historic Market Street Corridor, there are 125 buildings, of which 115 (92 percent) are classified as "contributing" to the historic character of the district based on the criteria of the Pennsylvania Historical and Museum Commission and the National Register of Historic Places. Only ten buildings along the Market Street Corridor are "non-contributing" to the historic character of the district. Thus, the Market Street Corridor (which today includes Market Street from the Bridge to US Route 15) is, in and of itself, a significant historic asset, not only for the Borough of Lewisburg and Lewisburg's Historic District, but also for the State of Pennsylvania.



Close-up of Ludwig Derr's 1785 Plan for Lewisburg, Pennsylvania, shown here in an 1873 copy notarized by the then Prothonotary of Union County. On the above development plan, Market Street, side streets, and alleys are all designed and designated.

Brick Structure of Historic Market Street

In 1915, brick paving was installed on Market Street over the historic original street (*Images of America: Lewisburg*, Marion Lois Huffines and Richard A. Sauers, Arcadia Publishing: 2010, p. 8). The brick structured portion of Market Street runs from Eighth Street to the east end of the Bridge. The new brick surface installed at the beginning of the 20th Century further solidified Market Street's fundamental role in the successful development of the Borough and in anchoring Lewisburg's historic commercial and residential district. As can be easily appreciated in the photo below, the historic underlying brick surface of Market Street is still visible today. These historic original bricks lie only a few inches below the current surface of Market Street.



Market & Fifth Streets historic brick structure exposed just below the asphalt surface, 2018.

Historic Market Street, Then and Now in Photos—1785 to 2019



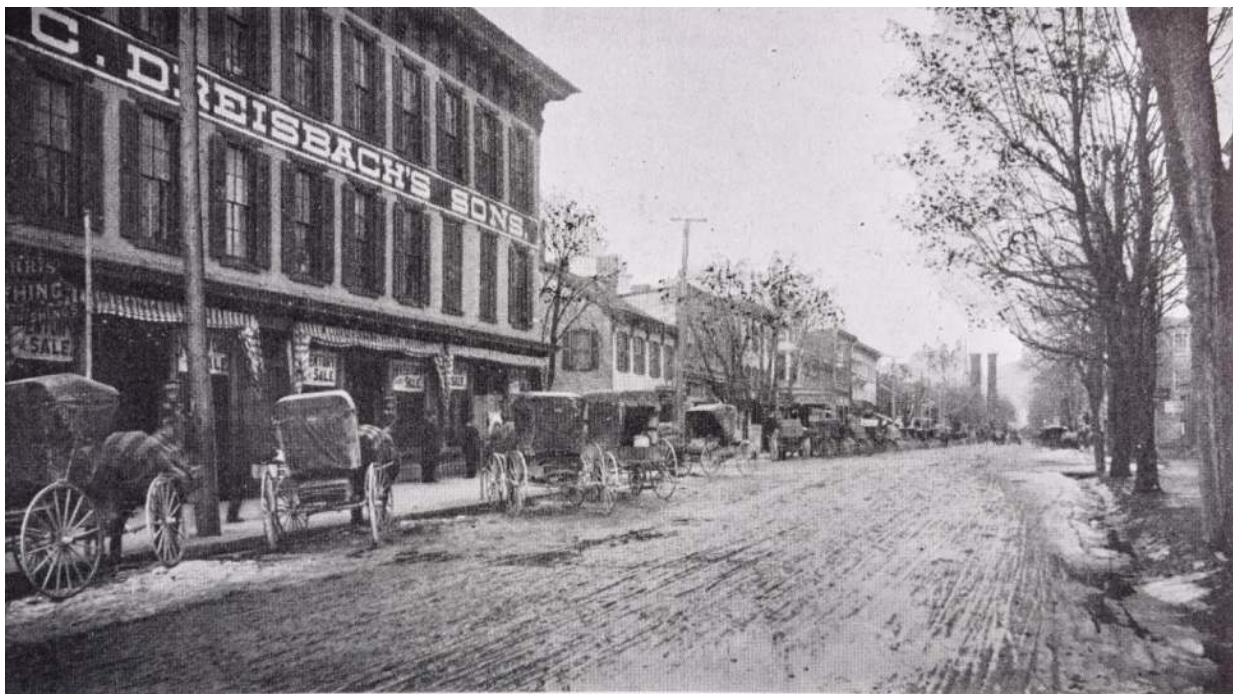
In this 19th century photograph of Market Street, on the left is the 1845 Queen Ann building that became the Mount Vernon Hotel by 1868; the iconic First Presbyterian Church (1856), designed and built by John Nesbit; the Presbyterian Manse (1869); and the 1795 log-structure Packwood House, known as the American Hotel in 1868 and located at the corner of Market and N. Water Streets—all on the National Register of Historic Places (NRHP). The entrance to the Williams Ferry that crossed the Susquehanna River stands at the east end of Market Street (ca. 1880). Twin water towers, whose bases remain today in Soldier's Memorial Park, are to the left. Trees line the street. There are sidewalks between buildings and the curb, along with pedestrian crosswalks. A gas street light hangs in the foreground, on the top right.



Same view on April 12, 2019. The bridge over the Susquehanna River has replaced the Williams Ferry house.

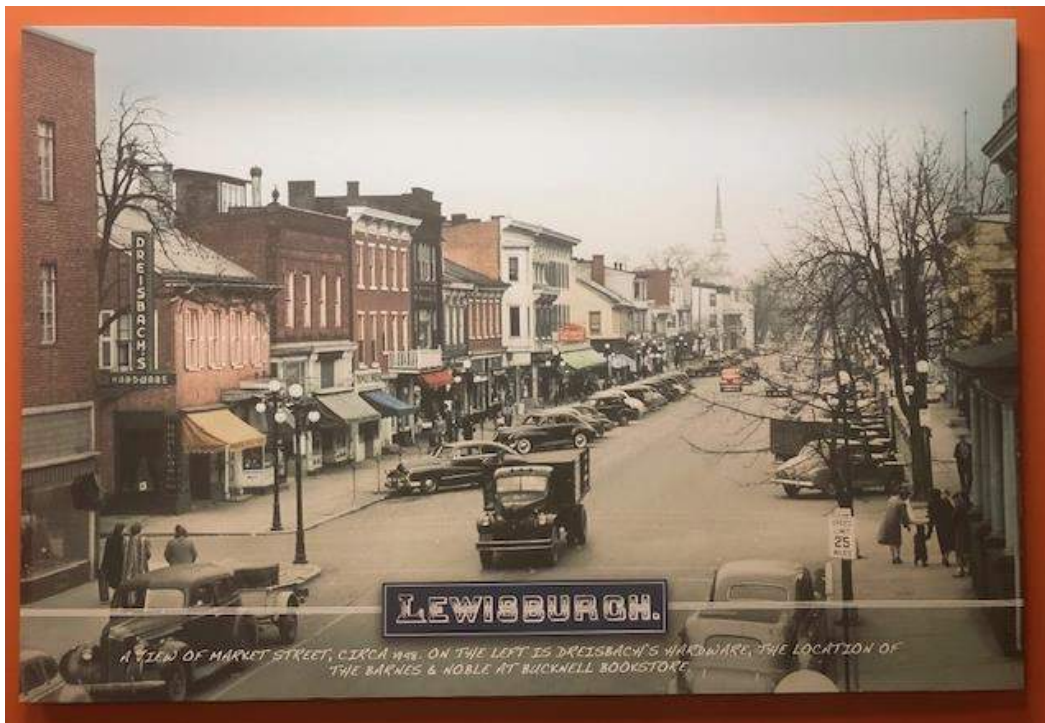


Same view, as the 19th Century photo and the contemporary photos above, but obstructed by a heavy truck.
 (Date of Photo: April 12, 2019)



Corner of Market Street and North Fourth

Market Street, latter part of the 19th Century, Dreisbach's Store, Corner of Market Street & North Fourth Street.



Market & North Fourth Streets, c. 1948, view eastward, same as above photo, with Dreisbach's Store, Commercial Vernacular Brick, NRHP, rebuilt after fire destroyed their 19th C. building—occupied today by the Bucknell Bookstore. On the opposite N. Fourth & Market Corner is the 1835 Federal Brick building, NRHP, occupied today by Brushstrokes Gallery and Art Supplies.



Market & North Fourth Streets Today, View West, with 337-339 Market (1857 Italianate Vernacular), 409 Market, (1927 Neoclassical Stone), & 413 Market (Art Deco Campus Theater). All on the National Register of Historic Places. (Date of photo: April 12, 2019)



Market Street 1912, view east to Fifth Street, with 439 Market, Greek Revival Vernacular, 1857, Lewis Palmer designer/builder, SE corner—today the Pineapple Inn (NRHP), and the Chamberlain Building, 439 Market, Palmer designer/builder, NE corner, which today houses Sushihanna Sushi Restaurant, On Fire Promotions, various business and professional offices, and Iron Front Event Venues (NRHP).



Similar view, with the two buildings described above barely visible through the tree canopy - Market Street today, May 2019.

Market Street in the Era of Motorized Vehicles – 20th and 21st Centuries

Historic Market Street continues today, as it was in the past, as a multimodal street, along which Downtown Lewisburg's social, commercial, and residential community life is organized. In the 18th, 19th, and early 20th centuries, Market Street accommodated pedestrians, horses, wagons, carriages, and bicycles. When trains became popular in the 19th century, train tracks were installed across Market Street, where trains still run today. With the advent of motorized vehicles, Market Street also accommodated these new machines.

In 1915, Market Street's historic bricks became the new street surface, from Water Street, at the base of the 1910 bridge over the Susquehanna River, as far west as Eighth Street. Also, in 1915, Lewisburg installed its signature three-globe cast-iron streetlights, enjoyed today throughout the Historic District and pictured in the photo below. These electric lights replaced the former gaslights to better illuminate the Borough's new brick surface travel lanes (*Images of America: Lewisburg*, Marion Lois Huffines and Richard A. Sauers, Arcadia Publishing: 2010, p. 8). In the photo below, the sign shows the posted speed limit at 20 mph for motorized vehicles. For decades, these new motorized vehicles continued to interact appropriately with pedestrians, bicycles, and all types of prior non-motorized modes of transportation.



Market Street, photographed March 1936, during a flood, view westward, from the east end of the 1910 bridge, at Water Street, with the 1785 Packwood House (NRHP), on the corner to the right. Note speed limit sign on right.



The 1912 Market Street Bridge, view westward toward Lewisburg from the east bank of the Susquehanna, with the water towers, in today's Soldier's Park clearly visible.

In 1987, PennDOT began construction of a new bridge, without posted weight restrictions, to replace the above 1912 original bridge over the Susquehanna River. At the time of construction, Lewisburg citizens expressed concerns about the types of vehicles that the new bridge would bring through the Historic District and the Downtown Market Street Business District. These concerns were officially documented in Lewisburg Borough's Comprehensive Plan, adopted June 20, 2000, pp. 13-16, and 38. (See Appendix P, for pertinent pages of the Lewisburg Borough Comprehensive Plan, year 2000).



The current 1988 Market Street Bridge, view eastward toward the Susquehanna River, with Packwood House Museum, 1795, (NRHP), on the left, at the corner of Market and Water Streets, and Soldier's Memorial Park across North Water Street (May 16, 2019).

Between 2007 and 2011, in order to ameliorate some of these traffic concerns and provide additional protection for pedestrians, the Borough, in cooperation with Bucknell University's School of Engineering and PennDOT, constructed pedestrian bulb-outs on Market Street, at Fourth, Third, and Second Streets, and a mid-block crossing between Fourth and Third Streets. Likewise, from 2004-2011, the Borough worked with PennDOT to upgrade the signal system for Downtown Market Street's four traffic signals, at Seventh, Fourth, Third, and Second Streets.

While these design and signal projects improved conditions along Market Street, the year-over-year increase in freight truck traffic continued, as did the safety, noise, and vibration impacts on the community and on Lewisburg's historic buildings.

The current Study is an outcome of transportation recommendations from the Borough's 2000 *Comprehensive Plan* and ongoing community and Borough concerns and initiatives.



Market Street Today, photographed April 12, 2019, view eastward. The stoplight in the foreground is at the intersection of Market Street and Seventh Street. The next visible stoplight is at the intersection of Market Street and Fourth Street. All but one of the buildings to the right and to the left along Historic Market Street, in this block from Seventh Street to Sixth Street, are on the National Register of Historic Places (NRHP).



National Register of Historic Places plaque, from one of the 115 buildings on the National Register that line Lewisburg's Historic Market Street Corridor.

"The Lewisburg Historic District is listed in the National Register of Historic Places, and in 1969 The Pennsylvania Historical and Museum Commission certified the local district as historically significant, according to the requirements of the Historic District Act of 1961. Market Street has been at the heart of the community since Ludwig Derr laid out the town in 1785. For years the Downtown Partnership has worked to foster and sustain small businesses along this Corridor, while the Borough's Historical Architectural Review Board has ensured that the district's historic character is preserved. As a result, Lewisburg is home to one of the state's most successful Downtown commercial districts.

"More recently, it has become clear that the community's distinctive small-town character is being threatened as a result of increasing, heavy truck traffic. The almost steady stream of semi-trailers through the center of the borough raises a variety of urgent concerns about pedestrian safety, delayed emergency response times, deteriorating air quality, and the negative effects of rising noise and vibration levels on the significant historic buildings that line the street. Together, these trends are putting the community's historic preservation successes and downtown vitality at risk—and all for the sake of a shortcut that only benefits the trucking companies.

"The PA State Historic Preservation Office strongly supports the Borough's decision to commission a study to assess the effects of truck traffic on the Market Street corridor. This report promises to break new ground here in Pennsylvania. By providing communities, our office, and highway planners with data to understand the long-term impacts of heavy traffic in historic neighborhoods, the study will give PennDOT and MPO staff the information they need to plan highway routes that thoughtfully balance the interest of local residents and small businesses with the practical concerns of a growing trucking industry. Among its conclusions, we hope the study recommends 1) strategies to divert through-traffic to roads that are better suited for commercial vehicles and/or 2) design changes that are intended to discourage truck drivers from using Market Street to get to destinations on the other side of the river."

- Bryan Van Sweden, Community Preservation Coordinator, Pennsylvania State Historic Preservation Office, Pennsylvania Historical and Museum Commission)

LEWISBURG'S HISTORIC DOWNTOWN BUSINESS DISTRICT – AN “EXPERIENCE ECONOMY”

Lewisburg's Historic Downtown Business District, anchored by its “Main Street,” the Market Street Corridor, is an example of an “experience economy.” Joe Pine and Jim Gilmore, in their seminal study on business and consumer behavior (The Experience Economy, Harvard Business Review Press, 1999, updated 2011) define an “experience economy” as an economy that provides the consumer with unique and positive shopping experiences, accompanied by entertainment and hospitality options, in an environment of authenticity, safety, well-being, and fulfillment. The authors stress that the value of such positive consumer experiences and consumers' direct authentic engagement with “place” is fundamental for economic viability, sustainability, vitality, and longevity.

Historic Downtown Lewisburg Today: “The Destination” and “The Experience”

Historic Downtown Lewisburg is an extremely dense mixed-use, multi-level community that combines commercial, residential, office, professional, religious, entertainment, community service, and recreational types of land uses. Typically, retail uses are located on the ground floor but are mixed with office, residential, financial, and professional service uses, both on the ground floor and on upper floors or in adjacent properties. Hospitality uses (hotel, inns, and guest houses) and a wide variety of food and drink options are intermingled throughout the Downtown Market Street Corridor. Entertainment uses (films, galleries, art and culture festivals, concerts and music events) assure that Downtown Lewisburg, through the day and into the nighttime, is an active, vibrant, eclectic, and highly pedestrian-oriented community.



Market Street, Downtown Lewisburg (2019)

As in past centuries, the combination of uses, within an environment that is built to human scale, organized to meet human needs, and designed to fulfill human expectations for all age groups, continues to make Historic Downtown Lewisburg a regional Pennsylvania and East Coast destination. Visitors and residents alike place additional value on the “experiences” that they have in Downtown Lewisburg, the memories that they create, and the authenticity of this unique, multi-faceted historic place.



Market Street, Downtown Lewisburg (2019)

In a time of ever-increasing online connectivity, **Lewisburg's Historic Downtown "experience economy"** fosters real human connectivity with others, as well as to the built and natural environments. Such opportunities have become even more desirable for all age and consumer groups, who seek to incorporate into their lives mindful experiences that provide both authenticity and a sense of fulfillment. The specific synergies evident in Lewisburg's "downtown destination" and the vitality, longevity, economic stability, and quality of life produced by this type of mixed-use, historic and traditional town development is highly-valued today, not only in the United States, but throughout the world.



Market Street, Downtown Lewisburg (2019)

THE LEWISBURG DOWNTOWN PARTNERSHIP AND THE MERCHANTS SURVEY

The Lewisburg Downtown Partnership

The “Lewisburg Downtown Partnership” (LDP) was established in 1999, with the support of the Pennsylvania Downtown Center (PDC), and the National Main Street Program—a comprehensive, community-based approach to revitalizing downtowns and central business districts, effectively applied throughout the United States, since the early 1980s. The Pennsylvania Downtown Center is the official State Coordinating Program for Main Street, while the Department of Community and Economic Development (DCED) provides funding and management. Based on its four pillars of Economic Development, Promotion, Historic Preservation and Design, and Organization, the Lewisburg Downtown Partnership fosters and coordinates the “experience, vitality, and sustainability” of Historic Downtown Lewisburg’s Business Community, in conjunction with local, regional, and state governments, institutions, and organizations. The LDP also organizes, sponsors, and co-sponsors Central Pennsylvania region-wide events within the Historic District, such as the annual Ice Festival, the Lewisburg Arts Festival, and the summer Music in the Park Series.



Market Street—Downtown Lewisburg's Main Street (2019)



Market Street—Downtown Lewisburg's Main Street (2019)

Downtown Lewisburg's Merchants Survey

For more than two centuries, Historic Downtown Lewisburg, which takes great pride in its numerous "multi-generational businesses," has offered consumers positive and sustainable experiences. Even though there have been dramatic shifts over the past three decades in consumer behavior, Lewisburg's Merchants have shown remarkable resilience, in retaining their customer base. Nevertheless, over the last several years, at the time when walkable urban shopping and entertainment environments throughout the United States have been outperforming other types of retail developments, Downtown Lewisburg's Merchants and their customer base have become disrupted and threatened by conditions along the Market Street Corridor—Lewisburg's Main Street.

The project team worked with the Lewisburg Downtown Partnership (LDP), community groups, the Bucknell University Institute for Public Policy, and the Bucknell University Small Business Development Center to formulate a survey of Downtown Merchants, regarding their economic and customer experience, relative to conditions along the Market Street Corridor. On May 5, 2019, the Lewisburg Downtown Partnership distributed the Merchants Survey to 86 of its 154 affiliated Lewisburg businesses. The 86 businesses selected to receive the Survey were those specifically engaged in retail, hospitality, and professional service sales, which focus on direct interaction with their consumers. Each recipient could respond only once to the Survey.

The 38.4% response to the Merchants Survey is considered to be very positive, especially given the sensitivity of the economic and customer questions posed to independent owners of small businesses. Likewise, these merchant responses appear to be broadly reflective of the current economic and business concerns of the LDP's wider group of affiliated Lewisburg businesses, especially in regard to impacts on their economic activity, their buildings, and on their experiences and those of their customers, due to traffic conditions along Lewisburg's pedestrian-friendly Downtown Market Street Corridor.



Sidewalk Sales are an important part of Lewisburg's Downtown Market Street Business Economy (2019)

Among independent small business owners, the Merchants Survey is considered a unique and sensitive instrument that not only inquired about their interactions with their customers, but also asked about their own business history, economic well-being, number of transactions, as well as the stability and longevity of their businesses. Open-ended comment sections were included for several sections of the Survey and for the Survey as a whole. In responding to this Survey, Lewisburg Downtown Merchants understood that their individual identities would not be disclosed.

The Downtown Lewisburg Merchants Survey – Topics and Structure

There were seven broad categories of information on the Merchants Survey: A) Background Questions, B) Personal, Business, and Customer Impact Questions, C) Economic Viability and Longevity Questions, D) Questions on Year-Over-Year Number of Transactions, E) Questions on Year-Over-Year Total Gross Volume of Business, F) Additional Comments Section, and G) Personal Information Section. Questions 1 through 11 were obligatory. Questions 12 through 17 were optional questions that focused on the sensitive topics of annual Number of Transactions, a metric for foot traffic, and on increases or decreases in Total Gross Sales Volume, a metric for cash flow, profitability, and over-all sustainability, for each of the years 2016, 2017, and 2018, as compared to each prior year. Optional Sections 18 & 19 sought additional comments and personal contact information. Merchants provided 125 comments, many of which encompassed multiple topics. A selection of Merchants' comments appears in the analysis immediately following the Merchants Survey. Percentage calculations are based on 100% of those responding to each question.

The Merchants Survey

A. Background: Questions 1-4

1. Check one. I am a Downtown Lewisburg:

Primary Type of Business Identification

Business Owner and/or Business Operator	32	97%
Professional Services Provider and/or Operator	1	3%

2. Check all that apply. I am a Downtown Lewisburg:

Property Owner and Resident Identification

Property Owner	16	39%
Resident	12	29%
Neither	13	32%

3. Categories of Primary Business Activity:

Primary Business Activity Identification

Retail Sales	18	55%
Restaurant or Food Sales	7	21%
Lodging	2	6%
Entertainment or Hospitality	1	3%
Personal or Beauty Services	3	9%
Banking or Investment Services	0	0%
Professional Services	0	0%
Non-Profit	2	6%
Other	0	0%

4. How long has your business or professional services been located in Downtown Lewisburg?

Summary: 61% of Merchants responding have been in business in Downtown Lewisburg for more than 10 years and 9% for more than 50 years

Years in Business in Downtown Lewisburg

In business for more than 50 years	3	9%
In business from 21-49 years	8	24%
In business from 10-20 years	9	28%
In business from 6-9 years	7	21%
In business from Less than 1 to 5 years	6	18%

There were 6 comments to this question.

B. Personal, Business, and Customer Impacts: Questions 5-9

5. How have the changes in vehicular traffic types and volumes through the Market Street Corridor impacted your business or your professional services over the past five (5) years? *Summary: 67% of Merchants responding reported that vehicular traffic types and volumes through the Market Street Corridor have impacted their businesses and revenues, with 33% reporting no impacts.*

Changes in Vehicular Traffic Types and Volumes in Downtown Lewisburg—Past Five Years

Hurt my business and revenues	22	67%
No effect on my business and revenues	11	33%

There were 11 comments to this question.

6. If changes in vehicular traffic types and volumes through the Market Street Corridor over the past five (5) years have affected your business, please identify in which ways, from the below list (check all that apply). *Summary: 76% of Merchants identified impacts to Parking Accessibility, Pedestrian Safety, and Social Discourse, in regard to vehicle types & volumes on the Market Street Corridor, as most negatively affecting their businesses.*

Ways in which Changes in Vehicular Traffic Types and Volumes through the Market Street Corridor Have Affected My Business over the Past Five Years

Outdoor dining	6	8%
Sidewalk Sales	6	8%
Parking Accessibility on Market Street	21	29%
Pedestrian Safety	20	28%
Social Discourse	14	19%
Not Affected	5	7%
Other	1	1%

There were 21 comments to this question.

7. In your judgment has your Gross Annual Sales increased or decreased, between January 1, 2016 and December 31, 2018? *Summary: 57% of Merchants reported decreases in Gross Annual Sales for the period indicated, and 27% reported increases, with 16% reporting little change.*

Increases or Decreases in Merchants' Gross Annual Sales, Between January 1, 2016 and December 31, 2018

Decreased Significantly	10	30%
Decreased Somewhat	9	27%
Not Much Change	5	16%
Increased Somewhat	6	18%
Increased Significantly	3	9%

There were 6 comments to this question.

8. If your customers have made complaints about the changes in vehicular traffic types and volumes through the Market Street Corridor, check the response that is most applicable. *Summary: 88% of Merchants reported that they have received complaints from customers, regarding vehicular types and volumes on Market Street, while 12% reported that they received no complaints.*

Customer Complaints about Changes in Vehicular Traffic Types and Volumes

We received many complains	20	61%
We received a few complaints	9	27%
We have not received any complaints	4	12%

There were 11 comments to this question.

9. If you are the owner of a business property or you are a business tenant responsible for upkeep, maintenance, and repairs on the building where your business is located, what impacts do you experience to your premises from heavy freight traffic? Check all that apply. *Summary: 18% of Merchants reported structural damage and deterioration to their buildings, and 23% of Merchants reported the need for more frequent repairs, while 43% of Merchants said that their premises require more frequent cleaning and maintenance, all due to heavy freight traffic. 16% of Merchants cited no particular building impacts.*

Impacts to Respondents' Premises from Heavy Freight Traffic

Structural damage and deterioration	10	18%
Need for more frequent repairs	13	23%
Need for more frequent cleaning & maintenance	24	43%
No particular impacts	9	16%

There were 13 comments to this question.

C. Economic viability and longevity: Questions 10-11

10. Given current circumstances, are you likely to still be in business in Downtown Lewisburg in one (1) year?

Respondents Who Plan to Be in Business in Downtown Lewisburg within One Year

Yes	30	91%
No	3	9%

There were 11 comments to this question.

11. Given current circumstances, are you likely to still be in business in Downtown Lewisburg in three (3) years? *Summary: Between a 1-year and a 3-year horizon for staying in business, the percentage of Merchants responding positively dropped 21%.*

Respondents Who Plan to Still Be in Business in Downtown Lewisburg within Three Years

Yes	23	70%
No	10	30%

There were 13 comments to this question.

D. Year-Over-Year Number of Transactions, compared to each prior year, from January 1, 2016 through December 31, 2018: Questions 12-14

- 12. Total Transactions for the 2016 year are which closest percentage increase or decrease compared to the Total Transactions for the 2015 year?** *Summary: 52% of Merchants cited decreases in Total Transactions for 2016, compared to 48% that cited increases in Total Transactions for 2016, with 1 respondent not in business in 2016.*

Total Transactions for 2016 Compared to 2015

0% to 5% Decrease	4	19%
5% to 10% Decrease	2	9%
10% to 15% Decrease	2	9%
15% to 20% Decrease	1	5%
20% to 30 Decrease	1	5%
More than a 30% Decrease	1	5%
0% to 5% Increase	5	24%
5% to 10% Increase	3	14%
10% to 15% Increase	1	5%
15% to 20% Increase	0	0%
20% to 30% Increase	0	0%
More than a 30% Increase	0	0%
Not in Business for any portion of the 2016 Year	1	5%
No Responses (12)	-	-

There were 4 comments to this question.

- 13. Total Transactions for the 2017 year are which closest percentage increase or decrease compared to the total transactions for the 2016 year?** *Summary: 75% of Merchants cited decreases in Total Transactions for 2017, compared to 25% that indicated increases.*

Total Transactions for 2017 Compared to 2016

0% to 5% Decrease	3	15%
5% to 10% Decrease	5	25%
10% to 15% Decrease	2	10%
15% to 20% Decrease	1	5%
20% to 30 Decrease	3	15%
More than a 30% Decrease	1	5%
0% to 5% Increase	1	5%
5% to 10% Increase	2	10%
10% to 15% Increase	0	0%
15% to 20% Increase	1	5%
20% to 30% Increase	0	0%
More than a 30% Increase	1	5%
Not in Business for any portion of the 2017 Year	0	0%
No Responses (13)	-	-

There were 3 comments to this question.

- 14. Total Transactions for the 2018 year are which closest percentage increase or decrease compared to the total transactions for the 2017 year?** *Summary: 70% of Merchants cited decreases in Total Transactions for 2018, compared to 30% that indicated increases.*

Total Transactions for 2018 Compared to 2017

0% to 5% Decrease	3	15%
5% to 10% Decrease	2	10%
10% to 15% Decrease	4	20%
15% to 20% Decrease	2	10%
20% to 30 Decrease	1	5%
More than a 30% Decrease	2	10%
0% to 5% Increase	1	5%
5% to 10% Increase	0	0%
10% to 15% Increase	2	10%
15% to 20% Increase	1	5%
20% to 30% Increase	2	10%
More than a 30% Increase	0	0%
Not in Business for any portion of the 2017 Year	0	0%
No Responses (13)	-	-

There were 3 comments to this question.

E. Year-over-year Total Gross Volume of Business, compared to each prior year, from January 1, 2016 through December 31, 2018: Questions: 15-17

- 15. Total Gross Volume of Business (TGVB) for the 2016 year is which closest percentage increase or decrease compared to the TGVB for the 2015 year?** *Summary: 50% of Merchants noted a decrease in TGVS for 2016, compared to 2015, and 50% an increase.*

Total Gross Volume of Business for 2016 Compared to 2015

0% to 5% Decrease	3	15%
5% to 10% Decrease	1	5%
10% to 15% Decrease	4	20%
15% to 20% Decrease	1	5%
20% to 30 Decrease	0	0%
More than a 30% Decrease	1	5%
0% to 5% Increase	4	20%
5% to 10% Increase	2	10%
10% to 15% Increase	2	10%
15% to 20% Increase	1	5%
20% to 30% Increase	0	0%
More than a 30% Increase	0	0%
Not in Business for any portion of the 2016 Year	1	5%
No Responses (13)	-	-

There was 1 comment to this question.

- 16. Total Gross Volume of Business (TGVB) for the 2017 year is which closest percentage increase or decrease compared to the TGVB for the 2016 year?** *Summary: 75% of Merchants noted a decrease in TGVS for 2017, compared to 2016, and 25% an increase.*

Total Gross Volume of Business for 2017 Compared to 2016

0% to 5% Decrease	3	15%
5% to 10% Decrease	6	30%
10% to 15% Decrease	2	10%
15% to 20% Decrease	2	10%
20% to 30 Decrease	0	0%
More than a 30% Decrease	2	10%
0% to 5% Increase	1	5%
5% to 10% Increase	2	10%
10% to 15% Increase	0	0%
15% to 20% Increase	1	5%
20% to 30% Increase	0	0%
More than a 30% Increase	1	5%
Not in Business for any portion of the 2017 Year	0	0%
No Responses (13)	-	-

There were 4 comments to this question.

- 17. Total Gross Volume of Business (TGVB) for the 2018 year is which closest percentage increase or decrease compared to the TGVB for the 2017 year?** *Summary: 71% of Merchants noted a decrease in TGVS for 2018, compared to 2017, and 29% an increase.*

Total Gross Volume of Business for 2018 Compared to 2017

0% to 5% Decrease	3	14%
5% to 10% Decrease	3	14%
10% to 15% Decrease	3	14%
15% to 20% Decrease	2	9%
20% to 30 Decrease	0	0%
More than a 30% Decrease	4	20%
0% to 5% Increase	1	5%
5% to 10% Increase	1	5%
10% to 15% Increase	1	5%
15% to 20% Increase	2	9%
20% to 30% Increase	1	5%
More than a 30% Increase	0	0%
Not in Business for any portion of the 2017 Year	0	0%
No Responses (12)	-	-

There was 1 comment to this question.

F. Additional Comments Section: Question 18

18. If you have additional comments on issues involving the health, safety, traffic speed, traffic volume, types of vehicles, or overall quality of life of Lewisburg's Market Street Corridor, please include these comments below. Also, if you wish to comment on your number of transactions or your gross sales volume for the first four months of the 2019 year, please do so below. Your information and observations are important and will become part of the "Market Street Transportation Study." *There were 15 comments.*

G. Contact Information Section: Question 19

19. If we can contact you for further information regarding your responses to this Survey, please provide your name and contact information below. *There were 117 responses.*

First Name		22
Last Name		21
Company Name		26
Work Phone		22
Email Address		26

"Our downtown community is being threatened by the significantly increasing heaving truck traffic moving throughout the day and night on the Market Street corridor which runs through Lewisburg's Historic District. I have listened to many business owners and residents in our community as they speak of the impact of the increased truck traffic. From cracked walls and falling ceiling plaster and tiles, to concerns for pedestrian safety, many of those who work and live in Lewisburg are concerned about the current situation.... As the Executive Director of the Lewisburg Downtown Partnership, I stand ready to assist with implementing changes that will help alleviate the impact of issues like noise pollution, air quality, and pedestrian safety, as well as any other issues that are addressed in this study. This study will provide the tools for the Borough of Lewisburg and PennDOT, in alignment with the PennDOT Connects program guidelines, to create better transportation systems and communities through collaboration."

- Ellen J. Ruby, Executive Director, Lewisburg Downtown Partnership

"The excessive truck traffic has disrupted the fabric of life in downtown Lewisburg through increased noise pollution, air pollution from exhaust fumes, and has posed a threat to pedestrian safety. These conditions challenge the existence of downtown Lewisburg as we have known it. The truck traffic deters many residents from coming downtown thereby reducing the number of both local residents and visitors who frequent the businesses and restaurants located on Market Street....Since 1968, the Lewisburg Arts Council has worked to foster and showcase the Arts within the Lewisburg community. Each year we sponsor four events, beginning with a two-week long Celebration of the Arts in the Spring, including a well-known street festival, as well as Music in the Park, a weekly music series during June, July and August. We also sponsor the Sidewalk Chalk Festival in July and the evening Stroll Through the Arts in November. These events are always free and open to all; they continue to thrive because they are set in downtown Lewisburg. People often remark on how much they love participating in the street festival and spending the day on Market Street surrounded by its historic buildings and charming store fronts. It is hoped that the study will provide highway planners and the community with data to interpret the long-term impact of heavy traffic in these historic neighborhoods. We also hope that the study will develop strategies to divert truck traffic to roads better suited for commercial vehicles than Market Street."

- Constance A. Timm, President, Lewisburg Arts Council

Market Street Merchants Survey Classification of Respondent Comments

Respondents to the Merchants Survey were invited to make separate comments to Survey Question 4 through 18. These comments encompass both general concerns and specific incidents, as well as individual and business experiences and customer comments relevant to this Study. When substantive comments address multiple issues, they were counted in more than one category. **Table 1** summarizes these comments by primary topic and sub-topic categories, with the result that 133 pertinent concerns are reflected in the Table below. A selection of *specific comments*, divided by general topics and sub-topics, follows the Table.

TABLE 1
COMMENT TOPICS FROM RESPONDENTS TO THE MARKET STREET
MERCHANTS SURVEY

Comment Topics	Number of Responses
A. Safety: Involving Traffic and Truck Traffic	27
Including: Pedestrian, Vehicle, and Parking Safety	
B. Noise from Traffic & Truck Traffic	22
Including: Impact on Social Life	
C. Volume of Traffic & Truck Traffic	21
Including: Vehicle Emissions and Vehicle Speeds	
D. Traffic & Truck Traffic Impacts on Buildings	21
Including: Vibrations, Dirt, and Dust	
E. Traffic & Truck Traffic Impact on Sales	
1. Decrease in Sales & Uncertainty About Staying in Lewisburg	28
2. Increase in Sales, Multichannel Marketing; Decrease in Foot Traffic	8
F. Years in Business on Market Street	6
Total	133

The project team identified recurring topics on the Market Street Corridor Merchants Survey and summarized the specific themes noted above, as expressed by respondents. A selection of respondent comments organized by primary topic are included below. Respondents were assured that their information, survey responses, and narrative comments would remain anonymous. All photos were taken in Lewisburg's Downtown Business District, April through June 2019.

A. Safety Involving Traffic/Truck Traffic—including: Pedestrian Safety and Parking Safety.

There were 27 Merchant comments that identified pedestrian safety and vehicle and parking safety as primary concerns for them and for their customers. Merchants described how these factors affect their customers' experiences along Market Street and therefore their own businesses and sales. Eighteen (18) Representative comments follow:

"Customers have commented on the truck traffic and difficulty pulling out (backing out) from parking areas."

"Unsafe to be in the downtown. Cannot cross the street. Cannot park safely."

"Guests are fearful of getting out of their car or to load or unload luggage. Guests going to dinner/shop complain they can't even talk because of the noise."



"The truck traffic and noise is keeping people from enjoying downtown outdoors and parking and walking safely around town."

"Space in front of my business is unsafe to use for events due to traffic speed, volume and noise."

"Less foot traffic--Customers complain of trouble crossing the street, safety & trucks hitting car doors."



*"Movie goers are less inclined to park in front of the theatre, as **many have had their side view mirrors clipped by passing trucks**, and they are afraid for their personal safety upon leaving their vehicle."*

"Mothers were afraid to get children in and out, due to trucks and vehicles coming through and driving unsafely."

"Customers complain. We help them back out and cross the street."



"People say they are not going to come downtown anymore. Too dangerous to be on the streets. Too difficult trying to breathe the air."



"I had one customer specifically share her concern as a Bucknell Parent."

"Customers voice their concerns about parking, walking across street, noise, and safety."



"Personally, my family has had close calls with being hit by trucks speeding by our parked cars. My wife and I have both almost been hit by cars speeding through the intersections, in order to make up for lost time. We have problems talking with people on the sidewalks, because of the noise from trucks and motorcycles."

"We must make note that our home/business was significantly damaged by a hit run driver at high speed on Monday, May 6, 2019. In addition to losing revenue from all the trucks/noise on Market Street, we now must pay insurance deductibles and deal with the hassle of repairs in a historic district."



"It is only by the Grace of God that no one was walking on the sidewalk at the time or that no one was in the room that was hit. Market Street is a disaster/tragedy waiting to happen. Young children live on both sides of our home/business. There are countless elderly people walking the streets. Are the government officials waiting for someone to be killed? This is not an issue that can wait for months/years of meetings, debates, discussion. This is an issue that must be resolved now!!!!!"

"Safety of patrons in the late night and day, crossing 45 between establishments, with truck traffic coming from the west that has not slowed down to posted speed limits."

"Safety, parking and ambience are taking a beating! Let us not lose our wonder!"

"Enforcing speed & noise ordinances (or creating them if they don't already exist) seems like an immediate measure that would help Market Street. Also, more PED-X signs & better responsiveness (as in time it takes between button-push & walk light) to PED-X signals at corners."



"Some police presence would be helpful. Ticket a few speeders at night (the trucks fly thru at night when the lights are green). Red lights are run regularly. Trucks will lay on their horn, so that you stop—cars run it (red light), because they are behind trucks & can't see. Pedestrians are at risk—Everyday! Walk signs are ignored. Worry about the structures on Market. The container double coke truck & logging trucks are just too heavy. The shaking & vibrations would shock you. The hazardous materials (trucks, etc.) should be monitored & open dump trucks make it scary for our pedestrians."

B. Noise from Traffic & Truck Traffic—including: Impact on Social Life. There were 22 Merchant comments that identified noise from traffic and truck traffic as primary concerns for them and for their customers. Merchants described how these factors affect their customers' experiences along Market Street, their businesses, and their sales. Thirteen (13) representative comments follow:

"Truck noise, vibrations & exhaust negatively impacted outdoor (Market St.) dining."

"Noise is a factor in guests (not) returning to facility."

"As residents, we cannot converse with guests/friends in front of our own home because of trucks/motorcycles."



"The noise affects people's ability to converse, eat outside, and enjoy time together outdoors."

"TOO noisy, so customers don't want to sit outside."

"Customers complain of unable to hear each other due to traffic, truck volume & noise."

"Customers complained about the annoyance of the trucks and how it was no longer quiet."



"The "noise" is so unpleasant that no one wants to talk outside. Soot gets on all the books we try and put out for sidewalk sales. Pedestrians are in danger."



"Not able to hold outside conversations or offer any outdoor amenities."

"Guests complain of being awoken early in the morning by trucks—just as we, as residents, are awoken."

"Noise, dirt."

"People have complained about the noise, the exhaust from trucks, and the speed of the trucks, and also about cars caught up in the congestion."





"Truck noise is horrible. We usually have our door open with a screen door on, and we can no longer do that because of the noise. People visiting Lewisburg have commented as to why are there so many large trucks on Market Street. People are staying off Market Street, because they are fearful and frustrated with driving and walking downtown because of trucks."

C. Volume of Traffic & Truck Traffic—including: Vehicle Emissions and Vehicle Speeds. There were 21 Merchant comments that identified volume of traffic and truck traffic, including emissions and speeds, as primary concerns for them and for their customers. Merchants described how these factors affect their customers' experiences along Market Street, their businesses, and their sales. Fourteen (14) "Representative Comments" follow:

"Downtown has become ugly, dirty, and unwelcoming to the customer I rely on attracting."

"Customers say they cannot pull out of parking spaces, as most times trucks are lining Market St., so you cannot back out. Parallel parking—trucks have damaged cars. People driving behind a truck will very often go right through a red light, because they can't see the light has turned red, as the truck sails through a yellow light. Trucks block intersections, as they sit in stand-still traffic. People are avoiding the traffic on Market, which therefore keeps them out of businesses."

"Amount of time to get in and out of downtown when on a schedule. Most impacted is lunch with only 1 hour—if it takes 15 minutes in and (15 minutes) out, then there is only 1/2 hour left for dining experience."



"Customers voice their concerns about parking, walking across street, noise, and safety."



"I refuse to eat outdoors because of the noise and toxic air. If I put anything outside my place to sell, it gets dirty, and we cannot hear what folks are saying when asking questions about our products or our mission. Parking is a real danger for folks on Market Street. There is not enough room to park and get out of your vehicle without fearing getting hit."

"Excess truck traffic--Some clients are afraid to park on Market St., and we have lost clients who can't park near our salon because of physical problems."

"Time."

"Our non-profit depends on people walking by and entering our space to get connected to all things Lewisburg. Fewer pedestrians has really affected us in a negative way."



"So Loud!" "So Fast!" "So Hard to Cross!"

"We are currently for sale, trying to sell our business to retire. However, given the noise and traffic on Market Street, selling has become almost impossible. Every potential buyer has commented negatively about the traffic. Ask any realtor about selling a property on Market Street!!!!!"

"It has turned a vibrant walkable charming downtown into a horrible unfriendly unwelcoming place. "Not" a place conducive for my business."

"Professionally, the traffic has prevented many people from spontaneously coming downtown to congregate, walk the streets, attend events and festivals. People from other communities have expressed that they are less motivated to come to Lewisburg, because of the traffic and the dangerous parking and walking conditions."



"Lewisburg is losing its identity and its commercial/retail viability. I should know, I've been in business on Market Street for 40 years."

"As a business owner, this truck traffic is just yet again one more thing making small businesses struggle...The one thing we can offer here is the atmosphere of a quaint historic town with unique businesses. This truck traffic has taken that from us too. It is hard to keep going when you are constantly being challenged in these ways. Please get the trucks off Market Street!"

D. Traffic & Truck Impacts on Buildings—including: Vibrations, Dirt, and Dust. There were 21 Merchant comments that identified traffic and truck traffic impacts on buildings, as significant concerns. Merchants described how these factors affect their businesses along Market Street. Twelve (12) representative comments follow:

"I need to straighten pictures every other day from being askew due to vibrations. Never had to do that before. Customers have left gallery because of unbearable noise levels in what should be a "quiet, restful" art gallery. A customer told me that they went to "Michaels" to have their framing done, because then they wouldn't have to 'deal with the trucks'!"



"Everything is a mess. Plaster falling. Items off shelves. Dirt and grime all over the exterior and interior of building."

"Windows rattle with trucks passing by—new masonry cracks continually appear."

"Dust on windows."

"Cracks in the walls and dirty windows. The cost of window cleaning (has increased), and the availability of folks to clean them has decreased. It makes our premises less appealing."

"Dirt and other garbage is always around."





"Parts of the plaster ceiling in the lobby have fallen due to truck vibration. There is historic decorative painting that needed to be restored by an expert. There is also further evidence of cracking in the walls and ceiling in other parts of the theatre."

"Power washing, window cleaning--Repainting--all done much more in last 2 to 3 years due to dirt off trucks, etc."

"Need to wash windows so much more frequently, due to dust & dirt. Need to level pictures every other day. Need to dust every other day. Have to tighten doorknob about once a week from vibrations knocking it loose. NEVER had to (do these things) before like this!"



"Tractor trailer took down neighbor's tree, damaged my facade, damaged sidewalk, damaged business, killed tree. Police didn't even try to cite the company."

"Our windows shake & rattle--cannot be good for the structure."

"More frequent cleaning and maintenance, so far."

E. Traffic & Truck Impacts on Sales—Decrease in Sales vs Increase in Sales

1a. There were 28 comments that reflect a "decrease" in Sales (1a) and uncertainty about remaining in business in Lewisburg (1b). Twenty-two (22) representative comments follow, for topics (1a) and (1b):

"Guests calling for reservations now ask if rooms are on the front. If they are, they no longer make a reservation. They only book if rooms are in the rear, and therefore I lose business."

"Sales continuing to go down. Many negative comments from customers about truck traffic."

"Had to combine stores because of the lack of people downtown."

"I have been told of business I've lost by people choosing not to come here. I have been told numerous times that people avoided my store because the only available parking was across the street, and they were afraid to cross because of the speeding trucks. So because of this, I actually lost business."

"Sales dropped by 70%. We kept ourselves afloat by posting to Facebook and Instagram."

"From 2016-2018 transactions 6.5% less."

"Gross sales are down 8% from 2016."

"Lunch daypart lagging growth as compared to others."

"We are down 17.5% in sales for 2018 vs 2015, for our Market Street retail location! But, (we are) almost double up in off-site sales, 2018 vs 2015."



"The gross increase in Market St. truck traffic was a deciding factor in closing my business in March, 2018. In warm weather my restaurant provided 25-30 outside seats, which were very popular. With the noise, exhaust & vibration from the trucks came a huge decrease in my customer's desire to dine

outside, & thus, a decline in business. I'm also very concerned about pedestrian safety, emergency response times, & environmental & structural impact."

1b. Comments reflecting uncertainty about remaining in business in Lewisburg:

"I would say it is a possibility to close, if things don't improve—however, I hope to remain in business."

"If we need to, we will find another location, where people would be more likely to find parking and spend time with us."

"We are looking for places with more walkability in their downtown--to open a new shop."

"Hopefully—we can remain in business, but truthfully--not sure."

"I (hope so, but) I won't have the \$\$ to improve my biz though."

"Truthfully, not sure."

"Will probably be unable to remain open."

"We hope to stay open, but it gets worse every day!"

"This is no longer a place I see helping my type of business."

"Not so sure we will be in business, in next 3 years."

"Maybe? We are hopeful."

"Hopefully."

2. There were 28 comments that reflect a decrease in sales (1a) and uncertainty about remaining in business in Lewisburg (1b). Twenty-two (22) representative comments follow, for topics (1a) and (1b):

"Business numbers are up but foot traffic down."

"My walk in transactions are down. My sales overall are way up...."

"New ownership focusing on building sales."

"This increase (in sales) is due to changes/improvements I've made in my business."

"With the exception of 2016, where our sales decreased slightly, we have actually seen an increase in sales and Gross Sales Volume."

"On-line sales are up. Foot traffic is a little less."



F. Years in business on Market Street. Six (6) specific merchant comments follow below:

*"Long standing business (**decades old**), which I have owned and operated for 2+ years."*

*"Started in 2002—**17 years.**"*

*"In business here, since 1926—**93 years.**"*

*"Store has been open since 2009—**10 years.**"*

*"At this location for **46 years.**"*

*"**5 years** in business, at this location."*

Summary of Responses from the Thirty-Three Respondents to the Market Street Survey

1. 97% of respondents were Business Owners or Operators; 3% were Professional Services Providers.
2. 39% of respondents were Downtown property owners and 29% were Downtown residents.
3. 85% of respondents were in retail, restaurant/food, lodging, or entertainment sales.
4. 61% of respondents have been in business in Downtown Lewisburg for more than 10 years, while 9% have been in business in Downtown Lewisburg for more than 50 years.
5. 67% of respondents said that vehicular traffic types and volumes have hurt their business and revenues.
6. 76% of respondents identified impacts to parking accessibility, pedestrian safety, and social discourse as most negatively affecting their businesses.
7. 57% of respondents reported decreases in Gross Annual Sales between 1/1/16 and 12/31/18; 27% reported increases, with 16% reporting little change.
8. 88% of respondents reported that they have received customer complaints about vehicular traffic types and volumes through the Market Street Corridor; 12% reported no complaints.
9. 18% of respondents reported structural damage/deterioration to their buildings; 23% reported the need for more frequent repairs; 43% said their premises require more frequent cleaning and maintenance—all due to heavy freight traffic.
10. 91% of respondents reported that they planned to still be in business in Downtown Lewisburg within one (1) year, while 9% responded that they are not likely to be in business within one year.
11. 70% of respondents reported that they planned to still be in business in Downtown Lewisburg within three (3) years, while 30% responded that they are not likely to be in business within three years.
12. 52% of respondents cited a decrease in Total Transactions (foot traffic metric) for 2016, as compared to 2015, while 48% cited an increase.
13. 75% of respondents cited a decrease in Total Transactions (foot traffic metric) for 2017, as compared to 2016, while 25% cited an increase.
14. 70% of respondents cited a decrease in Total Transactions (foot traffic metric) for 2018, as compared to 2017, while 30% cited an increase.
15. 50% of respondents cited a decrease in Total Gross Volume of Business (a metric for cash flow, profitability and sustainability) for 2016, as compared to 2015, while 50% cited an increase.
16. 75% of respondents cited a decrease in Total Gross Volume of Business (a metric for cash flow, profitability and sustainability) for 2017, as compared to 2016, while 25% cited an increase.
17. 71% of respondents cited a decrease in Total Gross Volume of Business (a metric for cash flow, profitability and sustainability) for 2018, as compared to 2017, while 29% cited an increase.

Assessment of the Lewisburg Downtown Merchants Survey

Lewisburg's Historic Downtown Main Street business community represents a traditional "Experience Economy," which for centuries has thrived on the authentic, pleasurable, and fulfilling "experiences" offered to consumers. Yet, today, in spite of the fact that:

- a) Boomers, GenX, Millennials, and emerging Gen Z are all seeking "authentic experiences and places" for their purchasing goals and,
- b) "Walkable urban retail," in general, has been growing significantly over the last several years, throughout the United States as a percentage of total market share, the "Merchants Survey" reveals that Lewisburg's Downtown Business District and its "Experience Economy," which easily should be benefitting from the above nationwide trends, has been handicapped by the increasing number of heavy freight vehicles passing through Historic Lewisburg, along the ultra-pedestrian Market Street Corridor.

(Foot Traffic Ahead: Ranking Walkable Urbanism in America's Largest Metro Areas, Tracy Hadden Loh, Christopher B. Leinberger, Jordan Chafetz, George Washington University School of Business and Smart Growth America, June 2019)

Given these findings, in regard to multi-generational shopper preferences for walkable urban retail, Lewisburg's Downtown Business District and its "Experience Economy" *easily* should be benefitting from these nation-wide trends.

Yet, today, the Merchants Survey reveals that Lewisburg's Downtown Business District and its "Experience Economy," has become handicapped by the increasing number of heavy freight vehicles passing through Historic Lewisburg, along the ultra-pedestrian Market Street Corridor.

Merchants report that they and their customers "fear for their safety and the safety of their families and their vehicles," in Lewisburg's highly-pedestrian "Main Street" shopping area. It is unreasonable to expect that the most vulnerable of roadway users (pedestrians old and young, the disabled, cyclists, and even passenger vehicles) should be forced to compete with 80,000 pound freight vehicles that dominate on historic 1785 streets.

In addition to the overarching concern for safety, Merchants described the extreme noise, the disorienting and disturbing vibrations, and the dirt and diesel residue that covers their buildings and their merchandise, as factors that are intolerable for them, their businesses, and especially for their customers. National Historic Register buildings and patron's vehicles have been damaged. Costs for frequent and excessive building cleaning and repairs are borne by Merchants or their Landlords, at the very time that foot-traffic and sales, for most Merchants, have declined, especially during 2017 and 2018. Even though a few Merchants reported an increase in overall sales for the period encompassed by the Survey (1/1/16 through 12/31/18), these same Merchants also commented that they also have had a decrease in foot-traffic and sales in their Market Street venues and that their increase in "overall revenues" is due to "online" or "off-premises" sales.

Merchants, customers, building owners, and the entire Lewisburg Historic District community have all become overwhelmed by the ever-increasing safety concerns, noise, vibrations, dirt, fumes, diesel residues, loss of customers, and the inappropriate and unnecessary dangers of having to compete with powerful, oversized freight vehicles, along the Historic Market Street Corridor. One of Lewisburg's "Main Street" business owners best expressed this extreme concern and frustration by saying:

"It is only by the Grace of God that no one was walking on the sidewalk at the time (our home was hit) or that no one was in the room that was hit. Market Street is a disaster/tragedy waiting to happen. Young children live on both sides of our home/business. There are countless elderly people walking the streets. Are the government officials waiting for someone to be killed? This is not an issue that can wait for months/years of meetings, debates, discussion. This is an issue that must be resolved now!!!!!"

- Market Street Business Owner

The Statewide Significance of Downtown Lewisburg, statement by Julie S. Fitzpatrick, Assistant Director, the Pennsylvania Downtown Center

"With its rich heritage and storied past, Lewisburg is a quintessential Pennsylvania downtown. As one of the commonwealth's oldest Main Street communities, Lewisburg has often been an exemplary community that other communities have looked to for decades. When it comes to college towns, Lewisburg leads the way in their partnership with Bucknell University and the Borough of Lewisburg....Lewisburg is home to one of the state's most successful Pennsylvania Keystone Communities Main Street programs and the National Main Street Center's, Main Street America™ nationally accredited programs."

"Now, more than ever, it is important for a community to remain relevant to the needs of its residents, visitors, business owners, and other stakeholders. With changing demographics, and a shifting of uses for downtown, issues such as noise pollution, air quality, pedestrian safety all become ever increasingly important issues to address towards the livability, safety, and economic viability of the community."

Julie S. Fitzpatrick

Special Projects Coordinator/Assistant Director

Pennsylvania Downtown Center

***The Regional Economic Significance of Downtown Lewisburg, statement by Andrew J. Miller,
Executive Director, Susquehanna River Valley Visitors Bureau***

"The Susquehanna River Valley Visitors Bureau promotes Snyder, Northumberland and Union counties as a regional destination. Our historic and bucolic downtowns and our stunning scenic byways are consistently hailed as some of our most valuable tourism assets. Visitor spending in Union County in 2017 – according to Oxford Economics, as commissioned by the Pennsylvania Tourism Office, was \$150 million dollars. It is not a far reach to state that Lewisburg—because of its easy access to Interstate 80 and Routes 15 and 45, the historic charm of a walkable downtown, which offers a variety of shops and restaurants, along with Bucknell University's events, arts and culture, plus the variety of lodging options for tourists—is the driver for visitor spending for Union County.

"Lewisburg, Union County, and regional visitor spending could be negatively impacted—for the long term—with increased freight truck traffic on Market Street that would make downtown Lewisburg unattractive to tourists and visitors. People like to travel to places that are safe and welcoming and pleasant to the eye and that offer a variety of interests and things to do. This could all be compromised for a variety of reasons should:

- Lewisburg's unique shops and eateries close, due to limited foot traffic, as people no longer feel safe walking along or crossing Market Street, because of truck traffic.
- Bucknell University encourages students and visitors to stay on campus, because of an unsafe downtown, due to truck traffic.
- The Historic District of Lewisburg is compromised, because of the dirt, pollution and the constant vibrations of non-stop truck traffic.
- Noise pollution prevents shoppers from having normal conversations, while walking downtown or sitting outside in sidewalk cafes.
- Downtown Events become limited, because they are (or) feel unsafe for pedestrians.

"In my recent presentation to our members at our Annual Member Dinner, I shared how such scenarios, as those noted above, could easily negatively impact our entire region, as a destination....[such as] traffic conditions that make traveling to the region or visiting one of its gems both problematic and unsafe. Tourists and visitors like safety, convenience, and positive experiences. They avoid dangers and nuisance.

"The Susquehanna River Valley Visitors Bureau wholeheartedly supports any studies and efforts aimed at reducing truck traffic and providing for a safe downtown in Lewisburg, for all to experience and enjoy."

Andrew J. Miller

Executive Director

Susquehanna River Valley Visitors Bureau

***The National Recruitment Significance of Downtown Lewisburg, statement by Lynn Miller,
Executive Vice President & Chief Administrative Officer, Geisinger Medical Center***

"The community of Lewisburg and its historic downtown are among the many reasons that people are drawn to the quality of life in central Pennsylvania. History, commerce, and architectural integrity make the Market Street corridor a coveted destination and point of pride for area residents. Lewisburg has been a valued asset in Geisinger's recruitment strategy over the years, and we support the Borough's efforts to preserve the unique character of the community.

"We understand that recent surges in heavy truck traffic on Market Street pose significant harm to the corridor's historic structures and create serious impairments to rapid response times for fire and police. The trucks also discourage foot traffic in the downtown commercial district and threaten pedestrian safety. And the vibrations, air pollution and noise detract from the overall quality of life. Geisinger supports the Borough's decision to commission and conduct a study of the effects of increased truck traffic. The study will generate the critical data necessary to create safe and sustainable alternatives."

Lynn Miller

Executive Vice President & Chief Administrative Officer

Geisinger Medical Center

Bucknell University Student Survey

During the Spring 2019 semester, a group of students at Bucknell University, in Professor W.R. Flack's PSYC 230, "Community Psychology" class, conducted a survey to examine concerns among students, faculty, staff, and the community about growing truck traffic in Downtown Lewisburg. There were 136 respondents to this survey. Of the respondents: 85 were Bucknell Students, 22 Bucknell Staff, 19 were residents of Lewisburg, 5 were Bucknell Faculty, and 5 were employed in Lewisburg.

To the question of "How often do you go Downtown": 70 said weekly, 34 said monthly, 21 said daily, 10 said yearly, and 1 said never.

To the question of respondents' mode of transportation: 72 said drive, 61 said walk, and 3 said bike.

To the question of whether or not respondents perceived "noticeable increases in tractor trailer presence": 112 said yes, and 24 said no.

To the question of "Feelings of Safety: Crossing Streets": 11 said very safe, 42 said safe, 54 said neutral, 26 said unsafe, and 3 said very unsafe."

To the question of ability for "Traffic and Emergency Response": 78 said more difficult/reroute, 52 said slight issues/rush hour, and 5 said no effect.

The Survey also collected feedback comments on specific issues:

1. On Health and Safety there were 34 comments. A representative selection appears below:

"HORRIBLE! ANNOYING! SCARY!"

"Trucks contribute to air pollution; it has gotten worse over the years."

"I feel more unsafe, more difficulty crossing the road, driving requires extra caution."

"As a Bucknell staff member, and also a local EMT who visits the downtown, the traffic and tractor trailers are a problem. It makes it very difficult in an emergency when you are trying to get to your patient and can't do so in a timely manner because there are tractor trailers who are not able to move over to a safe area for you to even get your apparatus around."

"Concerned about historical building preservation, pedestrian safety, and negative impact on business development."

"I feel more unsafe, more difficulty crossing the road, driving requires extra caution."

"The additional traffic creates smog, dangerous intersections, and I often see tractor trailers going through red lights."

"Tractor trailers are a serious problem in downtown Lewisburg as many of them run red lights and are not responsible when it comes to pedestrians."

2. On Traffic and Time, there were 24 comments. A representative selection appears below:

"As a driver, it makes it much more difficult to navigate through downtown."

"It makes driving downtown very difficult."

"Large trucks are very wide and come close to edge of road, scary. Long wait to cross the street. Can't see stoplights when driving behind them."

"Trucks are a major reason why traffic builds up on Market Street."

"Negatively. There has always been too many trucks on Market Street but it is ridiculous now. There needs to be a better route that would be better for them and for downtown businesses and pedestrians."

"Backs up traffic and makes downtown area less appealing because of trucks sitting on Market Street."

3. On Buildings and Roads, there were 3 comments. All three comments appear below:

"I avoid Market Street like the plague when driving my car. You can usually park somewhere, but the tractor trailers make it impossible to get out of a parking spot. The truck traffic has totally killed the quaint downtown feel Lewisburg used to have, and I shudder to think what all the heavy traffic is doing to the bridge!"

"Noise, speeding trucks are scary, the house gets really dirty."

"Living on Market Street, not only do trucks make loud noises and shake our home, but they also make it difficult to navigate the street."

4. On Noise and Atmosphere, there were 29 comments. A representative selection appears below:

"It has made eating outside, walking around, and being downtown less enjoyable in general because of the noise, traffic, and pollution."

"Increased noise pollution and scenic disruption."

"Working part-time in one of the stores, I have realized that the tractor trailer traffic makes being downtown very unpleasant and loud."

"The noise is off-putting. It's also visually unappealing: the trucks are out of proportion for the street."

"Rather than wander around, I tend to go where I planned then head home. The trucks are dirty, noisy, and kill the charming downtown experience."

"Noisy, dangerous, scary."

"Can't have a conversation, trucks block visibility and intersections when driving and walking—unsafe, don't want to eat outside."

"Not a pleasant environment, loud, bad air quality, don't like to walk on Market St. as much."

5. On Parking/Speeding, there were 10 comments. A representative selection appears below:

"Very loud and disruptive, obstructs visibility of other drivers and pedestrians, increased risk parallel parking along Market Street."

"It is hard to see when you are driving because of all the tractor trailers and it's hard to get out of parking spots."

"I can't back out of parking spots, fewer cars can get through a light."

I've seen so many people run red lights downtown. And late at night the tractor trailers speed. I'm shocked that there haven't been more accidents."

6. On "Other," there were 13 comments. A representative selection appears below:

"I try to avoid being downtown as much as possible."

"Decreased the time I spend downtown."

"It stops me from going downtown."

"It's made it worse. Although I've always found the tractor trailer traffic bad on Market Street."

7. On "No Issues," there were 4 comments. Two of these appear below:

"It hasn't affected me directly, but I do see increased traffic."

"I often don't have a need to walk downtown."

Statement on Downtown Lewisburg

"Please accept this correspondence as Evangelical Community Hospital's support of the Lewisburg Borough's decision to commission a study on the effects of the significantly increased truck traffic on Market Street.

"As a community Hospital, Evangelical's economic health is dependent on the economic health and viability of its community. Lewisburg has always been a thriving community with a thriving historic downtown. This has benefitted the Hospital in many ways, particularly in its attractiveness to professionals, aiding us in the recruitment of physicians and other healthcare professionals. We have become concerned about the decline in public foot traffic due to parking and walking safety challenges and the economic impact it is having on small businesses. Also, as an ALS/BLS provider, my staff is challenged to access the downtown when called to a scene of an emergency as it is impossible to navigate around the large volume of trucks on Market Street.

"Again, Evangelical supports the traffic study and appreciates the due diligence around this matter. Alternative strategies and collaboration are needed to address the concerns of small downtown businesses and the overall community balanced with the logistical concerns of those companies that use trucking transportation. Peppering and diminishing the quality and safety of the Lewisburg downtown with commercial truck traffic is not the solution."

Kendra A. Aucker

President & CEO

Evangelical Community Hospital, Lewisburg, PA

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Part 3

Traffic Engineering Study

EXISTING ROADWAY NETWORK

As part of the regional highway network, Market Street is designated as State Route 45 and classified as a principal arterial roadway. Within the Lewisburg Historic District, Market Street is lined with historic buildings, street trees, and busy sidewalks. Market Street is a hub of pedestrian activity throughout the day. Bicyclists, rideshare vehicles, delivery trucks, and multiple bus companies compete for limited curb space. The street is crossed by railroad tracks, and the 10-mile Buffalo Valley Rail Trail (BVRT) will soon cross Market Street between Fifth Street and Sixth Street.

Land Use Context

PennDOT's *Design Manual, Part 2* and *Smart Transportation Guidebook* emphasize the importance of land use and community context within the transportation system. Based upon Chapter 4 of the *Smart Transportation Guidebook*, the land use context of the Market Street Corridor best fits the Town/Village Center designation, as described below:

Town/Village Center, "a mixed-use, high density area with building adjacent to the sidewalk, typically two to four stories tall with commercial operations on the ground floor and offices or residences above. Parallel parking usually occupies both sides of the street with parking lots behind the buildings. Important public buildings, such as the town hall or library, are provided special prominence."

Downtown Lewisburg is one of the best examples of a town/village center in the region.



Local Street Network

TPD conducted a field review of the local street network in the study area. The existing roadway characteristics within the study area are summarized in **Table 2**. The traffic signal permit plans for all signalized intersections are included in **Appendix B**.

TABLE 2
ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Roadway	Ownership	Functional Classification	Roadway Type ¹	Directional Orientation	Posted Speed Limit
Market Street	State	Principal Arterial	Community Arterial	East-West	25 mph
Eighth Street	Borough	Local Road	Local Road	North-South	25 mph
Seventh Street	Borough	Urban Collector	Local Road	North-South	25 mph
Sixth Street	Borough	Local Road	Local Road	North-South	25 mph
Fifth Street	Borough	Local Road	Local Road	North-South	25 mph
Fourth Street	Borough	Local Road	Local Road	North-South	25 mph
Third Street	Borough	Minor Arterial	Neighborhood Collector	North-South	25 mph
Second Street	Borough	Local Road	Local Road	North-South	25 mph
Front Street	Borough	Urban Collector/Local Road	Local Road	North-South	25 mph
Water Street	Borough	Urban Collector/Local Road	Local Road	North-South	25 mph

¹Roadway type based upon Table 1.2 – Roadway Typologies in PennDOT's Design Manual, Part 2

The lane width on Market Street ranges from 10 to 14 feet. The narrow lanes are immediately adjacent to heavily used on-street parking and busy sidewalks. As a result, once large vehicles enter the Market Street Corridor, it is difficult for the vehicles to pull over to make room for emergency services, fire trucks, or police, or because of their own mechanical breakdowns. Smaller passenger cars are able to pull over and allow emergency vehicles to travel down the center of the street, but large vehicles have difficulty turning onto a side street or pulling over to create adequate room for emergency vehicles to pass safely. The narrow width of perpendicular streets and tight curb radii also make it impractical for trucks to turn left or right. Thus, most trucks continue straight through the entire Historic District.

Regional Highway Network

The Lewisburg Historic District sits between two major north-south highways: US Route 15 to the west and PA Route 147 to the east. Route 15 and Route 147 provide direct high-speed access to Interstate 80, a major freight transport route located approximately six miles north of Lewisburg. Route 15 is also a major freight route northward to New York State and the Port of Buffalo and southward toward Harrisburg and ultimately the Baltimore and Washington metropolitan areas.

In the sixteen-mile corridor of Route 15 between Shamokin Dam and Interstate 80, there are currently five state-owned bridges crossing the West Branch of the Susquehanna River, including the Interstate 80 Bridge. An additional bridge is currently under construction as part of the Central Susquehanna Valley Transportation (CSV) project south of Lewisburg.

Market Street (S.R. 45) is a part of the National Highway System (NHS), but is not a part of the National Network (NN). The NN is an interconnected system of high volume routes across the United States that is utilized extensively by large vehicles and that does not have any unusual characteristics causing current or

anticipated safety problems. While the NHS also provides an interconnected system of principal arterial routes that serve interstate and interregional travel, the network, its characteristics, and truck regulation policies are not synonymous.

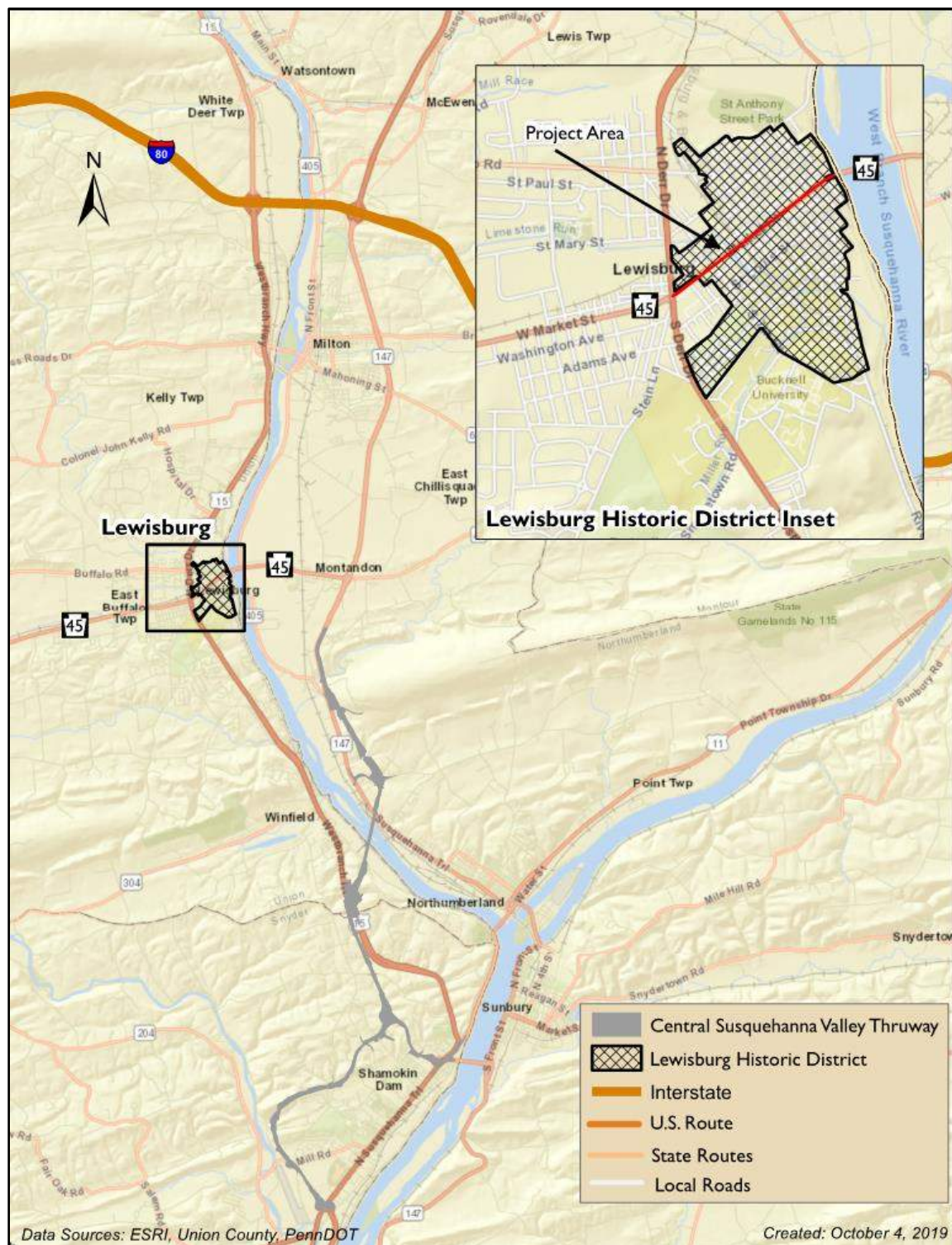


Figure 1 – Map of Regional Highway Network (Courtesy of SEDACOG)

Special Roadway Type – Main Street

Section 5.1.1 of PennDOT's *Smart Transportation Guidebook* defines a special roadway type called a Main Street. Anchoring the center of a town, village or city, the Main Street is characterized by:

- » Wide sidewalks and regular pedestrian activity;
- » Mostly commercial and civic uses, with residential uses primarily found on the upper level of buildings;
- » High building density;
- » Buildings oriented to the street, with little or no building setbacks;
- » Street furniture and public art;
- » Heavy use of on-street parking;
- » Speeds of 30 mph or less;
- » Preferably no more than two travel lanes, although three to four lanes are seen on occasion.

Market Street is a prime example of a "Main Street" that anchors the surrounding community. The guidebook states that "Main Streets are desirable in Smart Transportation because they support more sustainable communities, and because of their potential to increase walking, biking and transit use, as well as vehicular trip chaining."



Residents and visitors enjoy shopping, eating, and walking along Market Street in the Historic District.

Bicycle and Pedestrian Facilities

Lewisburg is a walking community. Sidewalks line both sides of Market Street and most other streets in the area. Most intersections in the study area are equipped with high visibility crosswalks and wheelchair-accessible curb ramps. Midblock crosswalks are also provided west of Fifth Street and between Third and Fourth Streets. The four signalized intersections in the Historic District are each equipped with exclusive pedestrian phases.

The Buffalo Valley Rail Trail, which runs 10 miles between downtown Lewisburg and downtown Mifflinburg, PA, will soon cross Market Street between Fifth and Sixth Streets, to continue south to the Bucknell University campus. Local leaders expect that the extension of the trail will increase local usage, resulting in more bicycle and pedestrian traffic crossing and traveling along Market Street.



Figure 2 - Map of planned trail extension (via www.bucknell.edu)

ONGOING REGIONAL TRANSPORTATION PROJECTS

Duke Street Reconstruction Project

The Duke Street Reconstruction Project, a series of interconnected projects, is located in the Borough of Northumberland, on the east side of the Susquehanna River. The project includes the reconstruction of Duke Street (PA 147) from 8th Street to Water Street; Water Street (US 11) from the Norfolk Southern Railroad bridge to King Street; King Street from the North Branch Susquehanna River bridge to Front Street; and Front Street from King Street to the merger point of US 11 northbound and southbound lanes near the Borough limits. Work began on the project on June 5, 2017. The project is scheduled for completion in summer 2020. The construction project required the restriction and detour of all trucks longer than 36 feet, excluding local deliveries, for a period of approximately two years (from June 2017 to July 2019). The official truck detour for Phases 1 through 9 is shown in the graphic below from the project website.



Figure 3 - Truck detour for phases 1 through 9 of Duke Street Reconstruction Project (from PennDOT project website)

Central Susquehanna Valley Transportation Project (CSVT)

The Central Susquehanna Valley Transportation (CSVT) project is a new four-lane limited access highway, approximately 13 miles long and separated into two sections. The northern section connects Route 147 south of Montandon to Route 15 south of Winfield and includes a 4500-ft-long bridge over the West Branch of the Susquehanna River. The southern section connects Route 15 south of Winfield to Route 11/15 north of Selinsgrove and includes a connector from the new highway to Route 61 (Veterans Memorial Bridge). The project website lists the following project purpose:

- » To separate trucks and through traffic from local traffic;
- » To reduce congestion and accommodate growth; and
- » To improve safety.

Work on the project began in late 2015. According to project updates given to the media in 2019, the northern section will be completed and opened in 2022 and the full project scheduled for completion in 2027 or 2028.

TRAFFIC DATA ANALYSIS

To assess existing traffic conditions in the study area, the project team conducted an extensive data collection effort along the Corridor between April 5, 2019 and April 15, 2019. TPD utilized a combination of automatic traffic recorders and Miovision Scout video data collection devices to collect a wide range of data at locations in and around the study area, as shown in **Figure 4**.

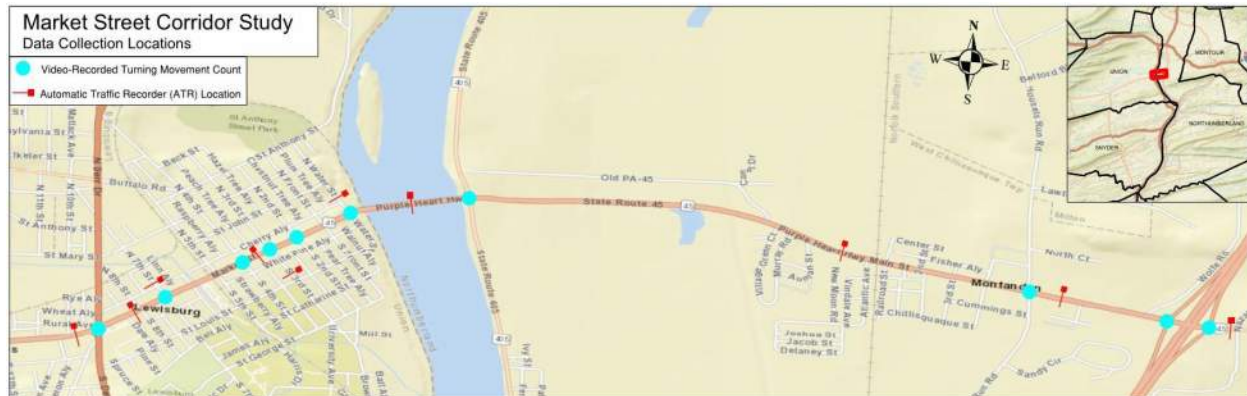


Figure 4: Data Collection Locations

It should be noted that there was a road closure on Route 45 approximately two miles east of the Route 147 interchange in conjunction with the repair of the bridge over Chillisquaque Creek in Northumberland County. The bridge closure began on Tuesday, April 9 at approximately 8:00 A.M. Based on a comparison of data before and after the bridge and road closure, it appears the impact on traffic volumes and vehicle types in the study area is minimal. However, it is possible that the traffic counts conducted after the morning of April 9 reflect slightly lower traffic volumes than would otherwise be present in the study area.

The ATR data sheets are provided in **Appendix C**. The Miovision data sheets are provided in **Appendix D**.

Automatic Traffic Recorder Data

Automatic Traffic Recorder (ATR) counts were conducted along the following roadways in the vicinity of the Market Street Corridor in order to determine the existing traffic patterns on a 24-hour weekday basis:

- » Market Street west of Route 15;
- » Market Street between Route 15 and Eighth Street;
- » Market Street between Fourth Street and Third Street;
- » Market Street east of Water Street (On Bridge);
- » Route 45 between Route 405 and Housels Run Road;
- » Route 45 between Housels Run Road and Route 147;
- » Route 45 East of Route 147;
- » Water Street north of Market Street;
- » Seventh Street north of Market Street;
- » Third Street south of Market Street.

The ATR counts were conducted from Friday, April 5, 2019 until Tuesday, April 15, 2019 when Bucknell University and the Lewisburg Area School District were both in session. TPD processed the following data from each ATR: traffic volume, vehicular classification, and vehicular speeds. Due to limitations of the ATR technology the vehicular classification and speed data may be inaccurate in locations where queues from

adjacent traffic signals frequently extend onto the counter. In addition, a mechanical malfunction occurred with the equipment located on Third Street south of Market Street. Therefore, at several locations TPD supplemented the ATR data with classification data from the Miovision counts.

Miovision Scout Video Data Collection

TPD utilized several Miovision Scout video data collection devices to conduct intersection turning movement counts, pedestrian counts, and traffic volume and vehicle classification data. The Miovision Scout units collected video continuously from April 8 through April 14, 2019. TPD utilized data from the ATR count between Third Street and Fourth Street to identify the weekday A.M. peak hour of total traffic (7:15-8:15 A.M.) and weekday P.M. peak hour of total traffic (3:30 to 4:30 P.M.) on Market Street. The peak hour consists of the four consecutive 15-minute intervals where the highest total traffic volumes occur, including both trucks and passenger vehicles. The peak hour may not reflect the peak hour of truck traffic.

TPD processed peak hour turning movement volumes for each of the four signalized intersections in the Historic District. TPD also reviewed ATR data and identified the twelve-hour period with the heaviest truck volumes on Thursday, April 11, which occurred from 4:00 A.M. to 4:00 P.M. Turning movement data for this time period was processed at several intersections. The count dates and times are summarized in **Table 3**.

TABLE 3
SUMMARY OF MIOVISION DATA PROCESSED

Intersection	Date of Traffic Counts	Data Type	Hours of Data
Market Street & Route 15	Thursday, April 11, 2019	Intersection Turning Movement Counts	12:00 A.M. to 12:00 A.M. (24 hours)
Market Street & Seventh Street	Wednesday, April 10, 2019	Intersection Turning Movement Counts	7:15 A.M. to 8:15 A.M. 3:30 P.M. to 4:30 P.M.
Market Street & Fourth Street	Wednesday, April 10, 2019	Intersection Turning Movement Counts	7:15 A.M. to 8:15 A.M. 3:30 P.M. to 4:30 P.M.
Market Street & Third Street	Wednesday, April 10, 2019	Intersection Turning Movement Counts	7:15 A.M. to 8:15 A.M. 3:30 P.M. to 4:30 P.M.
Market Street & Second Street	Wednesday, April 10, 2019	Intersection Turning Movement Counts	7:15 A.M. to 8:15 A.M. 3:30 P.M. to 4:30 P.M.
Market Street & Water Street	Thursday, April 11, 2019	Intersection Turning Movement Counts	12:00 A.M. to 12:00 A.M. (24 hours)
Route 45 & Route 405	Thursday, April 11, 2019	Intersection Turning Movement Counts	12:00 A.M. to 12:00 A.M. (24 hours)
Route 45 & Housels Run Road	Thursday, April 11, 2019	Intersection Turning Movement Counts	4:00 A.M. to 4:00 P.M.
Route 45 & Route 147 SB Ramps	Thursday, April 11, 2019	Intersection Turning Movement Counts	4:00 A.M. to 4:00 P.M.
Route 45 & Route 147 NB Ramps	Thursday, April 11, 2019	Intersection Turning Movement Counts	4:00 A.M. to 4:00 P.M.
Market Street East of Water Street	Monday, April 8, 2019 to Sunday, April 14, 2019	Roadway Volume and Vehicle Classification	12:00 A.M. to 12:00 A.M. (24 Hours/7 Days)
Third Street South of Market Street	Monday, April 8, 2019 to Sunday, April 14, 2019	Roadway Volume and Vehicle Classification	12:00 A.M. to 12:00 A.M. (24 Hours/7 Days)

Daily Traffic Pattern Analysis

Based on the data collected at various locations along the Corridor, Market Street has an ADT (average daily traffic) of approximately 10,000 vehicles per day west of Third Street and an ADT of 16,000 vehicles per day at the bridge over the West Branch of the Susquehanna River. This pattern likely reflects traffic from the surrounding area utilizing Water Street and other Borough streets to access the Market Street Bridge. The traffic volumes throughout the week, as recorded by three ATR units, are summarized in **Table 4**.

TABLE 4
TOTAL DAILY TRAFFIC SUMMARY

Count Location	Total Daily Traffic				
	Monday April 8, 2019	Tuesday April 9, 2019	Wednesday April 10, 2019	Thursday April 11, 2019	Friday April 12, 2019
Market Street Between 7 th and 8 th Street	10,037	10,180	10,881	10,194	10,684
Market Street Between 3 rd and 4 th Street	No Data Available*	10,079	10,613	10,230	10,669
Market Street East of Water Street (Bridge)	16,557	16,288	17,213	16,480	17,306

*The ATR between Third Street and Fourth Street was damaged and replaced Monday morning

In a dense mixed-use environment like the Lewisburg Historic District, different land uses may cause changes in traffic patterns throughout the day. **Figure 5** illustrates how traffic volumes vary throughout the day at two locations on Market Street: the western end of the Corridor between 7th Street and 8th Street and at the eastern end of the Corridor on the bridge.

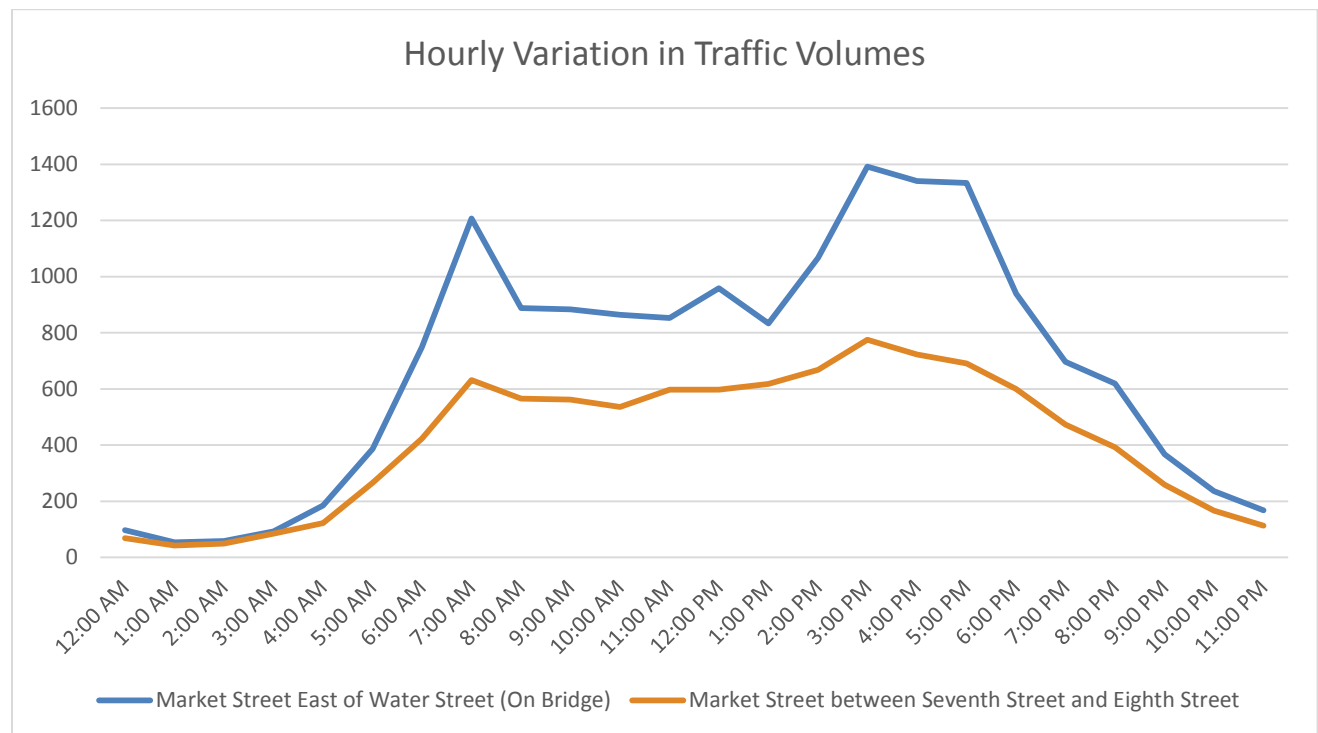


Figure 5: Hourly variation in traffic volumes

As shown in **Figure 5**, the data collected at the western end of the Corridor, between Seventh Street and Eighth Street, shows relatively steady traffic volumes throughout the day between 7:00 AM and 7:00 PM. This may reflect the balance of residential, commercial, and community land uses with Downtown Lewisburg.

The traffic counts conducted east of Water Street, on the bridge over the Susquehanna River, show slightly higher traffic volumes throughout the day, but there is a notably larger spike in traffic volumes during the traditional morning and afternoon commuter periods, when traffic volumes east of Water Street are significantly higher than traffic volumes between Seventh and Eighth Street. This may indicate that at the eastern end of the Corridor a higher percentage of traffic is just passing through the Historic District as part of their daily commute.

To evaluate overall daily traffic patterns along the Corridor, TPD plotted the total daily traffic volumes at eight locations based on data collected on Thursday, April 11, 2019. The data is shown in **Figure 6**.

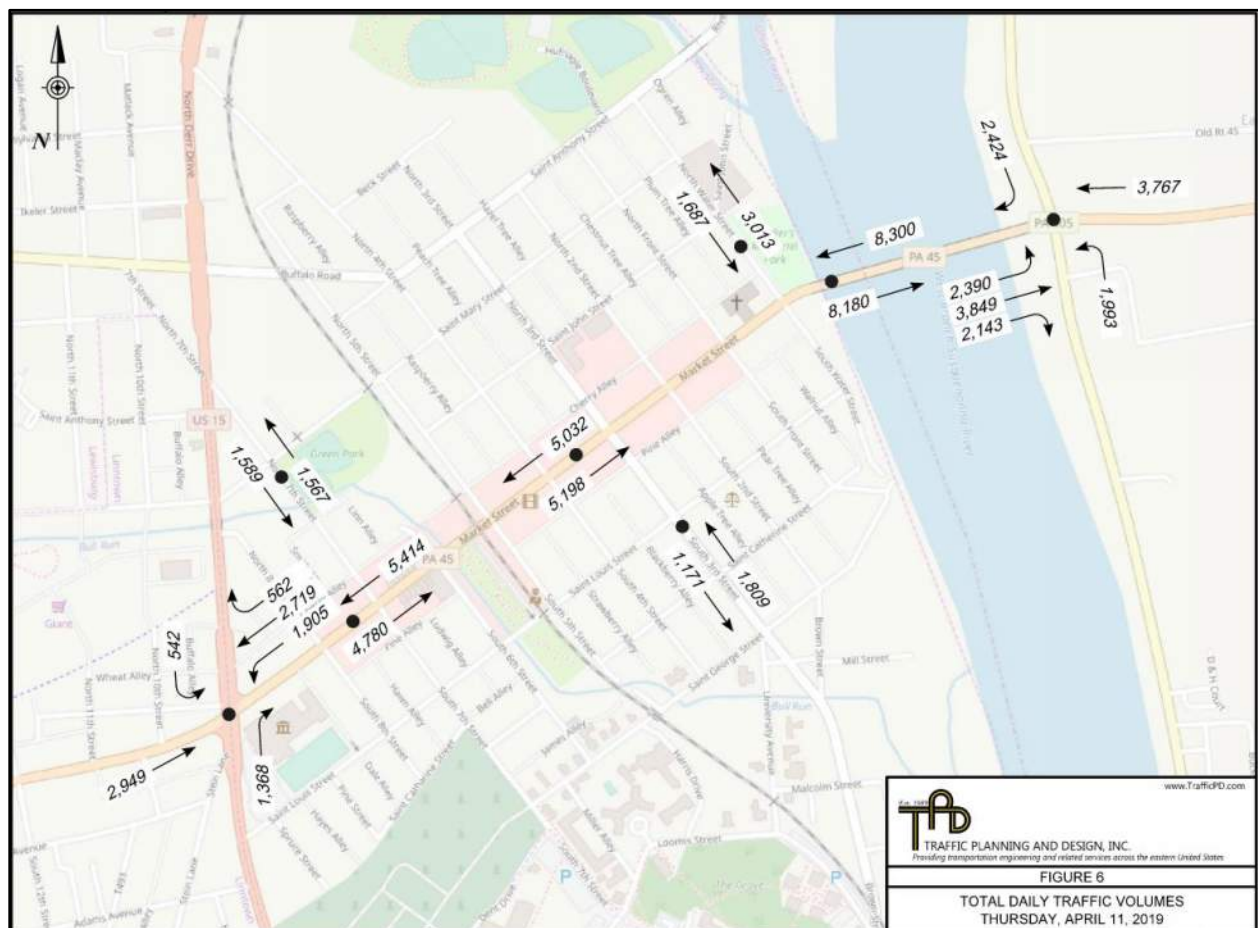


Figure 6: Total Daily Traffic Volumes on Thursday, April 11, 2019

Weekday Peak Hours Traffic Pattern Analysis

To further investigate how traffic moves across the Corridor, TPD plotted the intersection turning movement counts at signalized intersections in the study area for the weekday A.M. and weekday P.M. peak hours of total weekday traffic on Market Street. TPD utilized data from the ATR count between Third Street and Fourth Street to identify the weekday A.M. peak hour of total traffic (7:15-8:15 A.M.) and weekday P.M. peak hour of total traffic (3:30 to 4:30 P.M.) on Market Street. The peak hour consists of the four consecutive 15-minute intervals where the highest total traffic volumes occur. The peak hour traffic volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 7 and 8**, respectively.

Full-size versions of the traffic volume figures may be found in **Appendix E**.

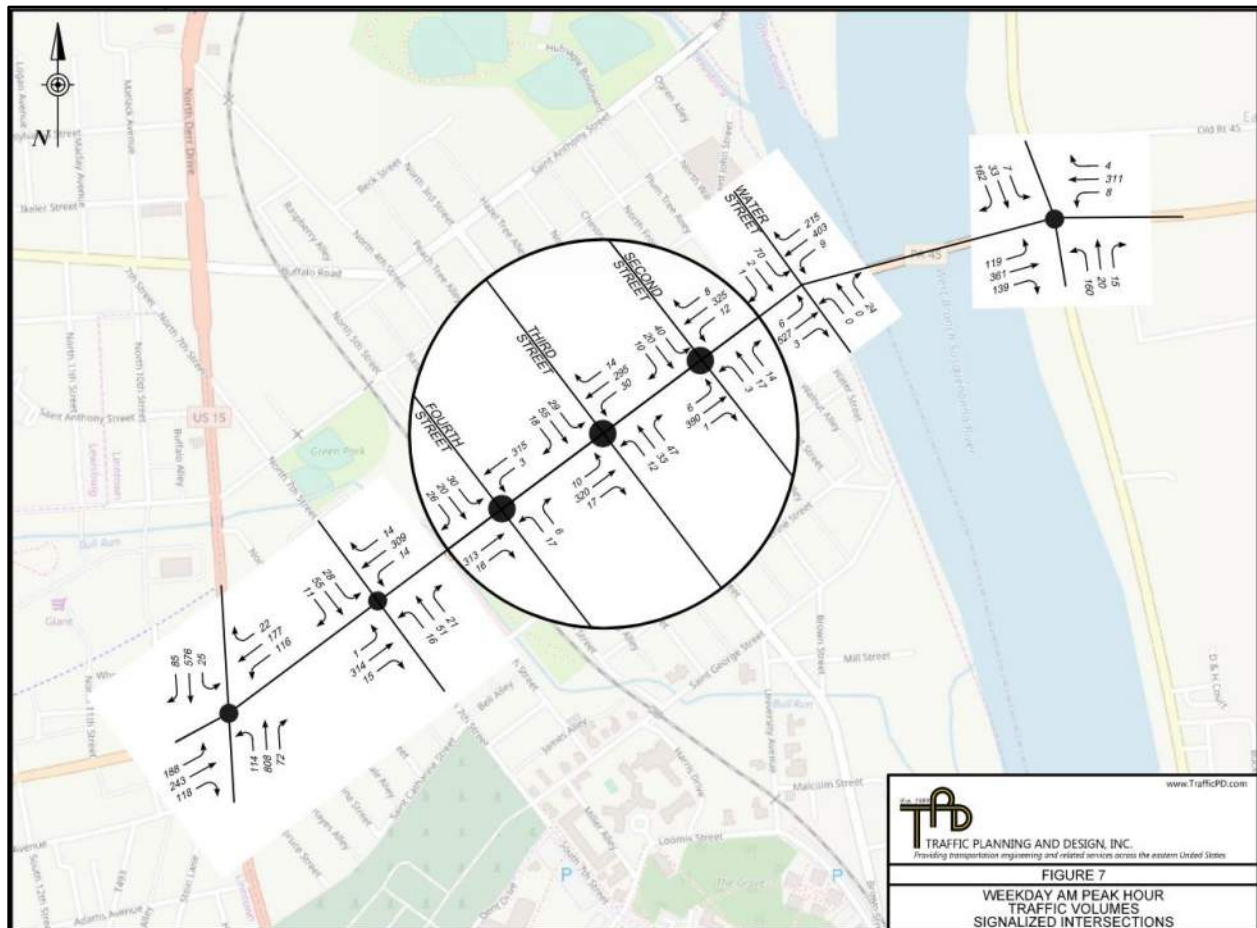


Figure 7: Weekday AM Peak Hour Traffic Volumes

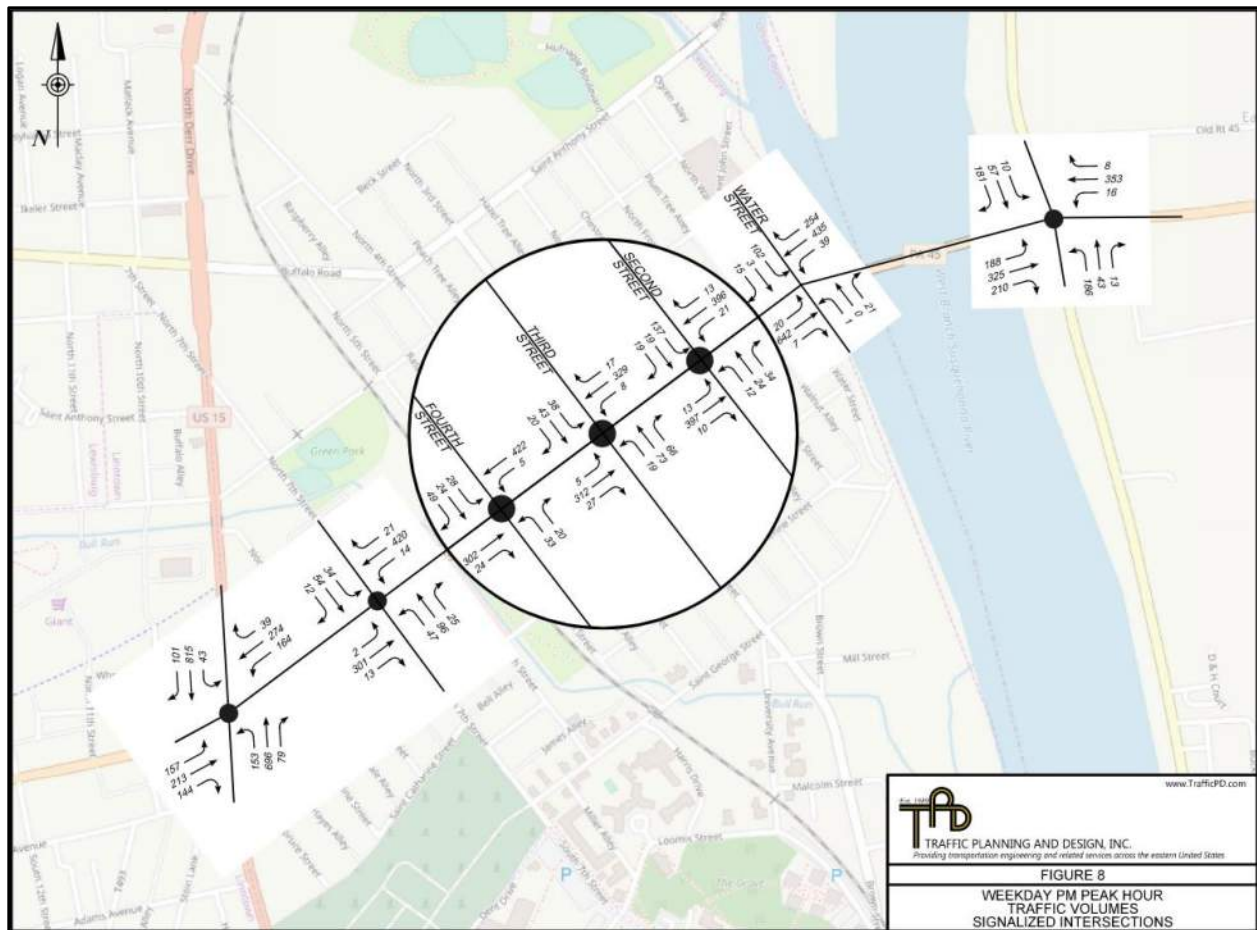


Figure 8: Weekday PM Peak Hour Traffic Volumes

The traffic patterns in Downtown Lewisburg generally show low traffic volumes on the minor streets at signalized intersections. The heaviest turning movements are the southbound left-turn movement from Second Street onto Market Street (137 vehicles) and from Water Street onto Market Street (102 vehicles) during the PM peak hour. Similarly, there is a heavy westbound right-turn movement from Market Street onto Water Street during the weekday AM peak hour (215 vehicles) and weekday PM peak hour (254 vehicles).

Second Street is the nearest traffic signal to the Bridge, so traffic from the north that is avoiding Market Street on their way to the bridge likely choose Second Street to make a signalized left-turn onto Market Street as far east as possible. During the weekday AM peak hour, 18 percent of eastbound traffic going over the bridge comes from southbound left-turns from Second Street or Water Street and 36 percent of westbound traffic going over the bridge turns right onto Water Street or Second Street. **During the weekday PM peak hour, 35 percent of eastbound traffic going over the bridge comes from southbound left-turns from Second Street or Water Street and 36 percent of westbound traffic going over the bridge turns right onto Water Street or Second Street.** This pattern aligns with total daily traffic pattern, where the traffic volumes west of Fourth Street are approximately 38 percent lower than the total daily traffic on the Bridge.

Traffic Patterns on Surrounding Street Network

Based on community feedback there are several Borough streets that are commonly used to access Market Street from locations outside the community: Third Street (north and south of Market Street), Seventh Street (north of Market Street), Second Street (north and south of Market Street), and Water Street (north of Market Street).



Photo of a truck turning left from Water Street onto Market Street, adjacent to the 1785 Packwood House Museum (National Register of Historic Places).

Table 5 summarizes the average number of cars and trucks along North Water Street, South Third Street, and North Seventh Street during each hour of an average weekday, based on data collected for the week of April 8-12, 2019.

TABLE 5
AVERAGE WEEKDAY TRAFFIC PER HOUR – SELECTED BOROUGH STREETS¹

Time of Day	North Water Street		South Third Street		North Seventh Street	
	Cars	Trucks ²	Cars	Trucks	Cars	Trucks
12:00 AM	25	0	9	0	21	0
1:00 AM	10	0	5	0	15	0
2:00 AM	12	0	5	0	9	1
3:00 AM	12	1	7	0	6	0
4:00 AM	33	1	25	0	10	0
5:00 AM	68	2	41	1	37	1
6:00 AM	191	4	79	2	70	2
7:00 AM	291	5	152	4	124	7
8:00 AM	266	11	190	3	146	4
9:00 AM	273	15	185	6	139	6
10:00 AM	274	9	172	6	145	4
11:00 AM	281	8	211	6	187	7
12:00 PM	306	10	247	6	219	4
1:00 PM	285	9	214	6	201	4
2:00 PM	302	8	214	7	210	3
3:00 PM	373	2	241	9	225	4
4:00 PM	358	6	261	5	282	2
5:00 PM	338	3	211	1	252	1
6:00 PM	258	2	155	2	229	2
7:00 PM	191	2	116	1	216	2
8:00 PM	159	0	105	0	163	1
9:00 PM	106	0	64	1	116	0
10:00 PM	61	0	32	0	70	0
11:00 PM	41	0	15	1	36	1
Total	4,514	98	2,956	67	3,128	56

¹Average hourly traffic volumes on a weekday for the week of April 8-12, 2019

²Number of trucks on Water Street based on Miovision data from Thursday, April 11, 2019

The data shows steady traffic throughout the day for the three streets. Each of these streets has truck traffic throughout the day, with Water Street carrying the highest volumes of trucks. **Water Street is a narrow, 25-foot wide residential street with on-street parking and minimal building setbacks, and is adjacent to a park, community garden, and youth athletic fields.**

Truck Traffic Pattern Analysis

To evaluate overall daily truck traffic patterns along the Corridor, TPD plotted the total daily truck traffic volumes at six locations based on data collected on Thursday, April 11, 2019. The data is shown in **Figure 9**.

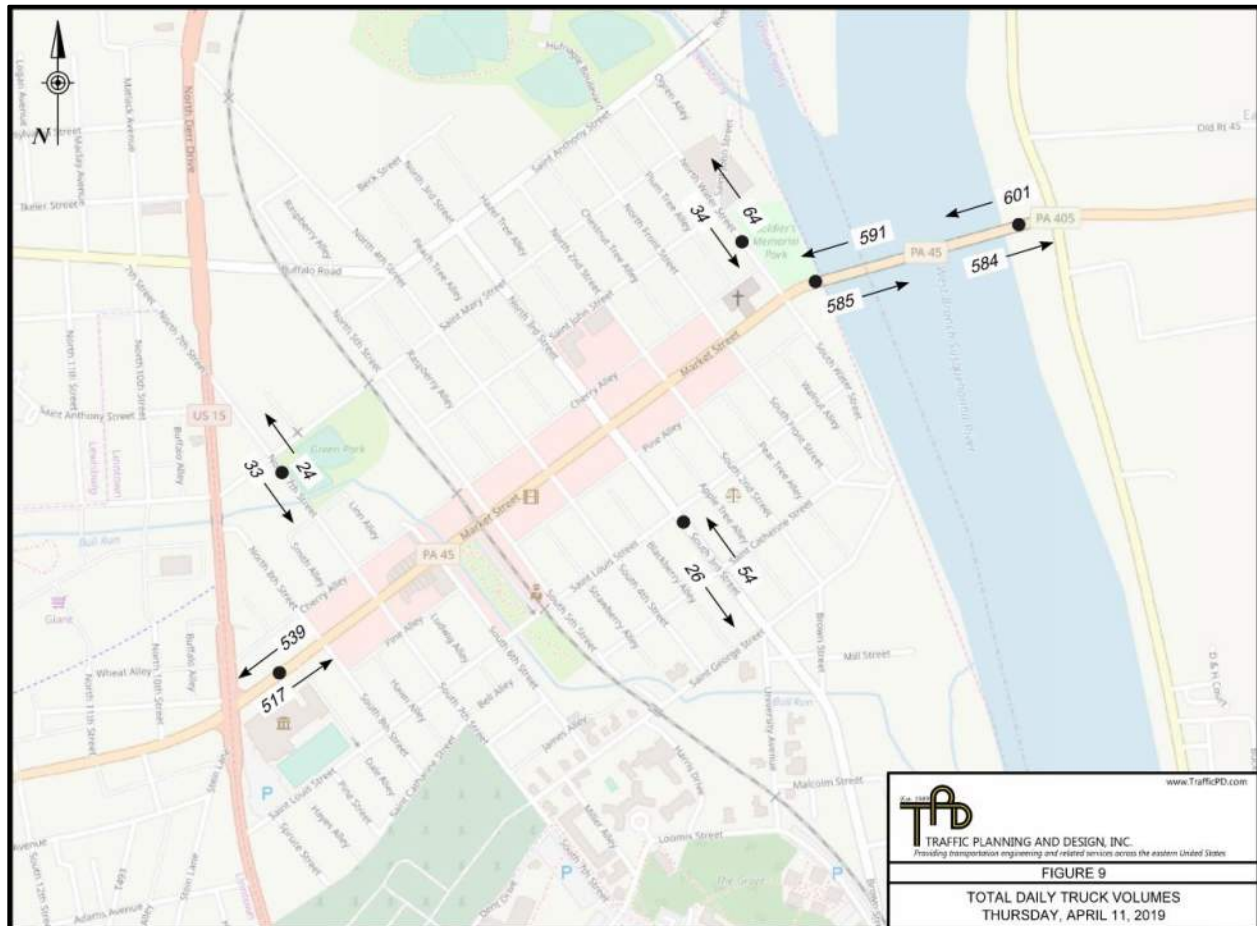


Figure 9: Total Daily Truck Volumes on Thursday, April 11, 2019

As shown in **Figure 9**, the majority of truck traffic along Market Street continues straight between the bridge and Route 15. This may reflect the inability of heavy trucks to make turning movements at other intersections along the Corridor. **The pattern also indicates, perhaps more importantly, that the majority of truck traffic along Market Street is just passing through the Historic District on the way to other destinations.**

The Lewisburg Historic District experiences heavy truck traffic throughout the day. The hourly variation in truck traffic throughout the day on the Market Street Corridor is shown in **Table 6**.

TABLE 6
HOURLY HEAVY VEHICLE PERCENTAGE – MARKET STREET

Time of Day	Traffic Counts on Market Street Bridge			Traffic Counts Between 7 th Street and 8 th Street		
	Total Trucks	Total Vehicles	Heavy Vehicle Percentage	Total Trucks	Total Vehicles	Heavy Vehicle Percentage
12:00 AM	19	97	20%	17	68	25%
1:00 AM	9	54	17%	10	42	24%
2:00 AM	22	58	38%	22	49	45%
3:00 AM	44	92	48%	46	85	54%
4:00 AM	46	185	25%	48	122	39%
5:00 AM	51	387	13%	56	266	21%
6:00 AM	56	749	7%	67	423	16%
7:00 AM	97	1207	8%	108	632	17%
8:00 AM	87	888	10%	83	565	15%
9:00 AM	99	883	11%	93	562	17%
10:00 AM	87	864	10%	81	536	15%
11:00 AM	87	853	10%	89	597	15%
12:00 PM	81	958	8%	80	597	13%
1:00 PM	88	833	11%	82	618	13%
2:00 PM	67	1067	6%	75	668	11%
3:00 PM	58	1392	4%	62	775	8%
4:00 PM	37	1340	3%	55	723	8%
5:00 PM	27	1333	2%	41	691	6%
6:00 PM	26	939	3%	43	599	7%
7:00 PM	14	696	2%	29	473	6%
8:00 PM	11	619	2%	24	392	6%
9:00 PM	18	367	5%	20	259	8%
10:00 PM	25	236	11%	34	167	20%
11:00 PM	20	168	12%	25	104	24%
TOTAL	1,176	16,265	--	1,290	10,013	--

The heavy truck traffic on Market Street starts early in the morning and continues steadily throughout the day and night. Currently on a typical weekday there are an average of 89 trucks per hour between 7:00 A.M. and 2:00 P.M. **Between 2:00 A.M. to 5:00 A.M. overnight, trucks make up more than 45 percent of traffic on Market Street between 7th Street and 8th Street, with a total of 116 trucks in three hours.**

Figure 10 below illustrates the total number of trucks crossing the Market Street Bridge during each hour on Thursday, April 11, 2019. The chart is based upon Miovision data collected at the intersection of Market Street & Water Street.

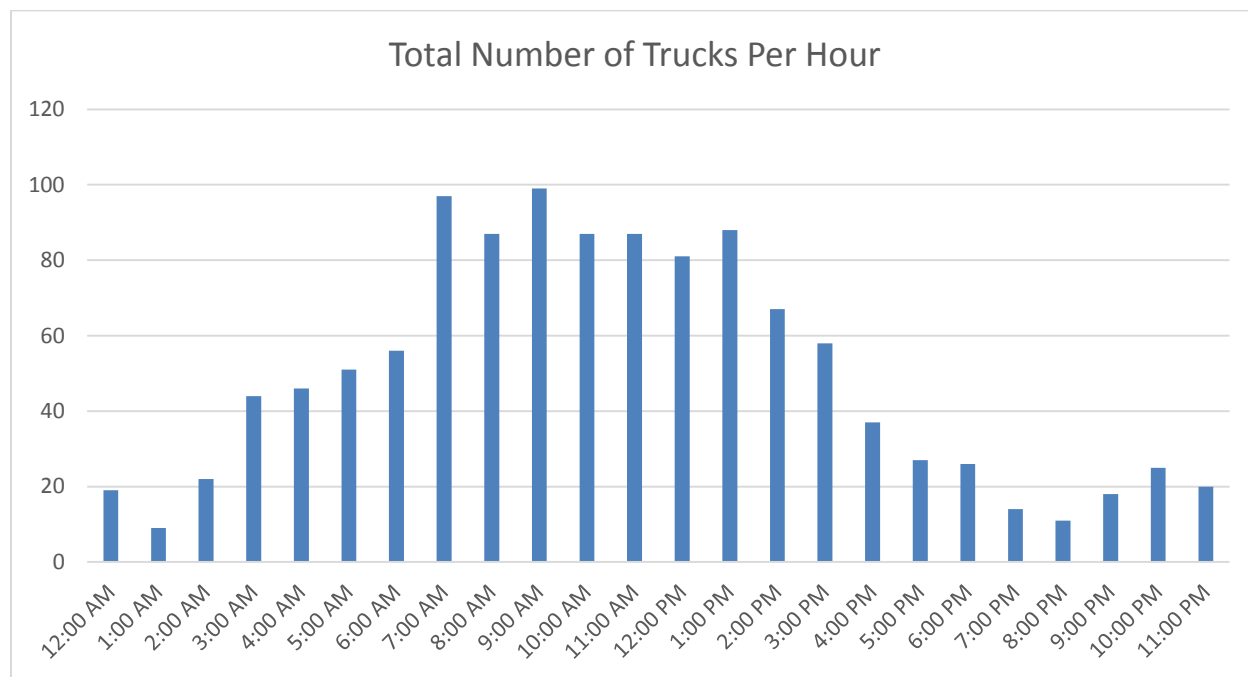


Figure 10: Trucks per hour on the Market Street Bridge on Thursday, April 11, 2019. A total of 1,176 trucks crossed the bridge in 24 hours.

Section 5.3.2 of PennDOT’s *Smart Transportation Guidebook* states that, “Major roadways that are to serve as major truck routes or primary through traffic routes should avoid the centers of urban areas or neighborhoods wherever possible.” **The use of Market Street as a regional cut-through route for trucks is not compatible with the heavy volumes of pedestrians in the Lewisburg Historic District.**



A truck making a right-turn from Route 15 North to travel east on Market Street (Photo from September 2019)

Truck Origin-Destination Analysis

To assess the origin and destination of truck traffic in the study area, TPD reviewed the total daily truck traffic volumes (24 hours) at seven locations based on data collected on Thursday, April 11, 2019. The data is shown in **Figure 11**.

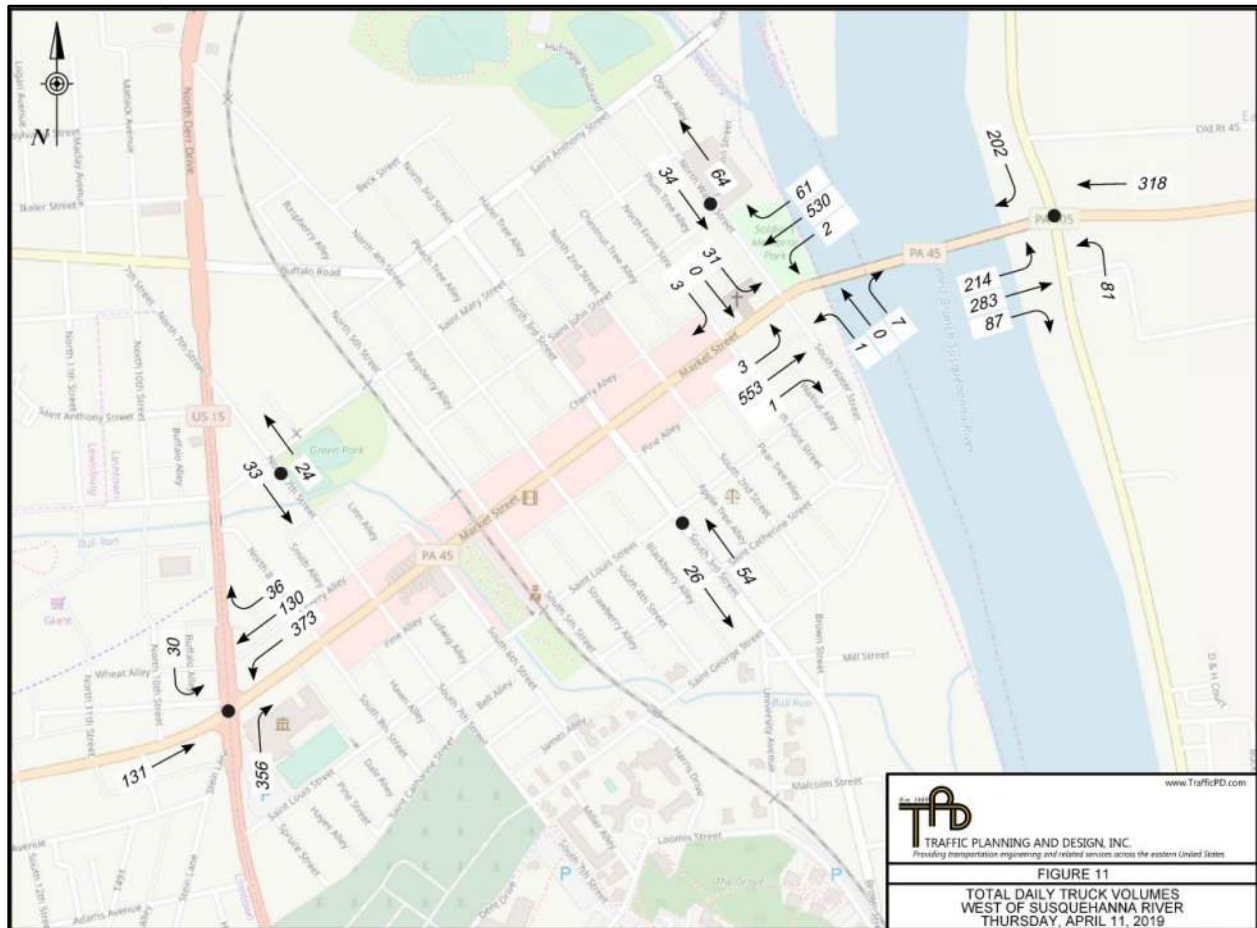


Figure 11: Total Daily Truck Volumes on Thursday, April 11, 2019

The overall percentage of traffic to/from each route is summarized in **Table 7** below.

TABLE 7
TRUCK TRAFFIC PATTERNS WEST OF SUSQUEHANNA RIVER

Direction	Total Truck Traffic To and From Each Route (24 Hours)						
	Route 15 (North)	Route 15 (South)	Route 45 (West)	Seventh St. (North)	Third Street (South)	Water St. (North)	Total
Total Eastbound Trucks (Approaching Bridge)	30 (5%)	356 (56%)	131 (21%)	33 (5%)	54 (8%)	34 (5%)	638 (100%)
Total Westbound Trucks (Away from Bridge)	36 (5%)	373 (57%)	130 (20%)	24 (4%)	26 (4%)	64 (10%)	653 (100%)

To further assess the origin and destination of truck traffic in the study area, TPD reviewed truck turning movement data at four key intersections on the east side of the Susquehanna River. TPD reviewed data from 4:00 AM to 4:00 PM on Thursday, April 11, 2019, which was the consecutive 12-hour period with the heaviest truck volumes on Market Street. The 12-hour traffic volumes are illustrated in **Figure 12** below.

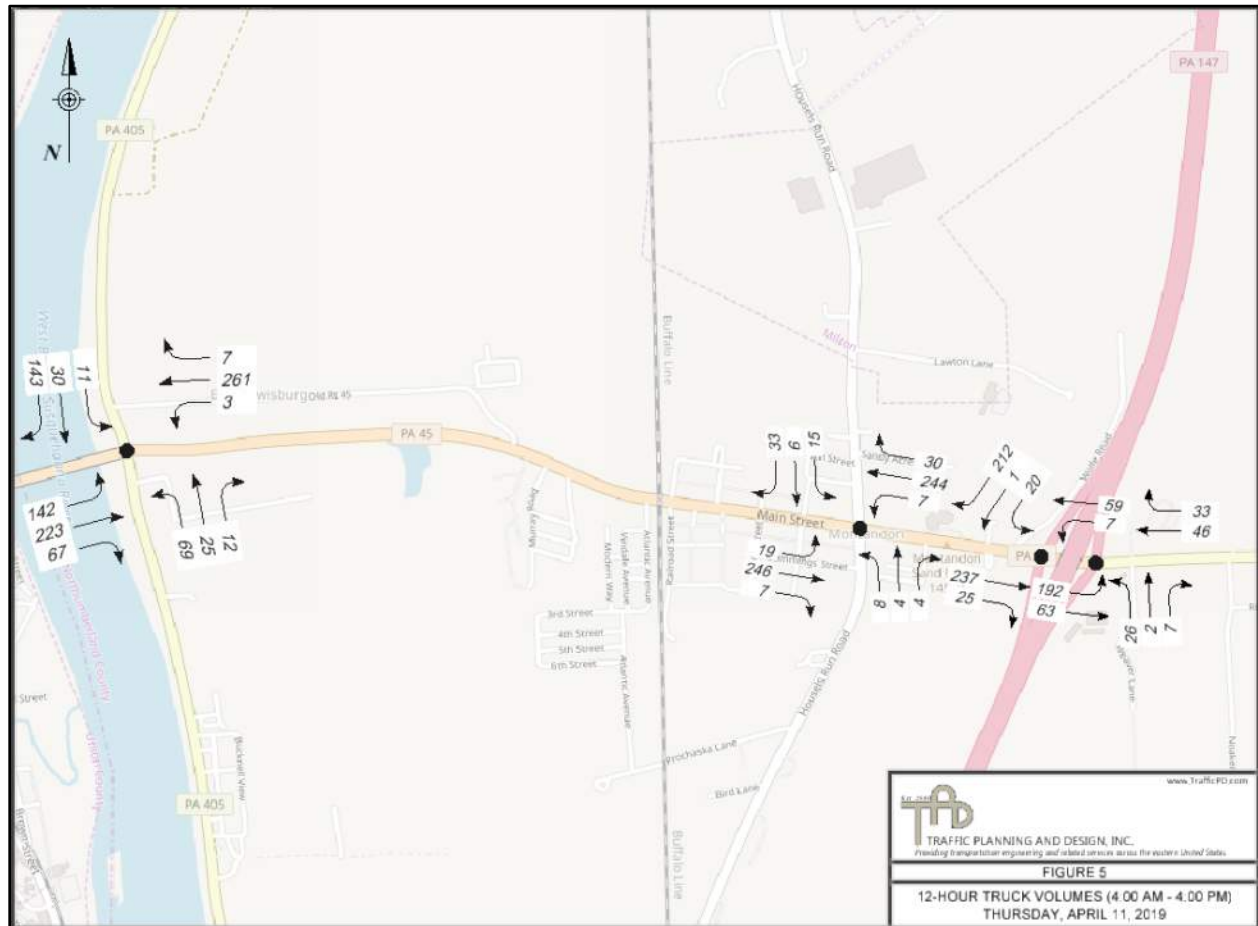


Figure 12: 12-hour (4:00 A.M. – 4:00 P.M.) Truck Volumes on Thursday, April 11, 2019

The overall percentage of traffic to/from each route is summarized in **Table 8** below.

TABLE 8
TRUCK TRAFFIC PATTERNS EAST OF SUSQUEHANNA RIVER

Direction	Total Truck Traffic To and From Each Route (12 Hours)							Total
	Route 405 (North)	Route 405 (South)	Housels Run Rd. (North)	Housels Run Rd. (South)	Route 147 (North)	Route 147 (South)	Route 45 (East)	
Total Eastbound Trucks (Away from Bridge)	142 (28%)	67 (13%)	19 (4%)	7 (1%)	192 (37%)	25 (5%)	63 (12%)	515 (100%)
Total Westbound Trucks (Approaching Bridge)	143 (27%)	69 (13%)	33 (6%)	8 (1%)	212 (39%)	26 (5%)	46 (9%)	653 (100%)

Based on the data summarized in **Table 8** and **Figure 12**, approximately 56 percent of all truck traffic that enters the Lewisburg Historic District in an eastbound direction is coming from the south on **Route 15**. Likewise, 57 percent of all truck traffic that exits the Lewisburg Historic District in a westbound direction travels to the south on Route 15.

On the east side of the river, approximately 28 percent of truck traffic crossing the Susquehanna River Bridge to/from Lewisburg comes to/from the north on Route 405 towards the Milton Industrial Park. It is also notable that approximately 38 percent of truck traffic travels to/from the north on PA Route 147.

Pedestrian and Bicycle Data

In conjunction with peak hour turning movement counts at the signalized intersections in the Lewisburg Historic District, TPD recorded the total number of pedestrians and bicycles crossing through each intersection during the weekday A.M. and weekday P.M. peak hours of traffic. The results are summarized in **Table 9** below.

TABLE 9
PEDESTRIAN AND BICYCLE VOLUMES AT SIGNALIZED INTERSECTIONS
DURING PEAK TRAFFIC HOURS ON MARKET STREET ON THURSDAY, APRIL 11, 2019

Intersection	Weekday A.M. Peak Hour (7:15 A.M. to 8:15 A.M.)		Weekday P.M. Peak Hour (3:30 P.M. to 4:30 P.M.)	
	Pedestrians	Bicycles	Pedestrians	Bicycles
Market Street & Seventh Street	22	2	45	2
Market Street & Fourth Street	14	2	166	4
Market Street & Third Street	28	2	116	6
Market Street & Second Street	11	2	72	3
Total	75	8	399	15

The data summarized in **Table 9** only reflects two one-hour periods at four intersections. There is frequent pedestrian activity downtown at all hours of the day, evening, and into the night due to numerous social and cultural activities along Market Street. This data also does not reflect pedestrian crossings at the busy crosswalks at Sixth Street, Fifth Street, or other unsignalized intersections, or the busy midblock crosswalks just west of the railroad tracks and between Third Street and Fourth Street.

Table 10 summarizes a full 24 hours of pedestrian crossing data at the intersection of Market Street & Fourth Street on Thursday, April 11, 2019. The data shows consistent pedestrian activity throughout the day, with a total of 1,552 pedestrian crossings over 24 hours at a single intersection.

Feedback from Downtown merchants and community members indicates that foot traffic downtown has been decreasing due to safety concerns related to the increased truck traffic. Although historical pedestrian data is not available, there is reason to believe that the total pedestrian activity would return to higher levels if community safety concerns are adequately addressed.

TABLE 10
PEDESTRIAN CROSSINGS PER HOUR ON THURSDAY, APRIL 11, 2019
INTERSECTION OF MARKET STREET & FOURTH STREET

Time of Day	Total Pedestrian Crossings
12:00 AM – 1:00 AM	4
1:00 AM – 2:00 AM	0
2:00 AM – 3:00 AM	0
3:00 AM – 4:00 AM	0
4:00 AM – 5:00 AM	1
5:00 AM – 6:00 AM	3
6:00 AM – 7:00 AM	10
7:00 AM – 8:00 AM	10
8:00 AM – 9:00 AM	17
9:00 AM – 10:00 AM	64
10:00 AM – 11:00 AM	81
11:00 AM – 12:00 PM	143
12:00 PM – 1:00 PM	138
1:00 PM – 2:00 PM	166
2:00 PM – 3:00 PM	96
3:00 PM – 4:00 PM	154
4:00 PM – 5:00 PM	135
5:00 PM – 6:00 PM	128
6:00 PM – 7:00 PM	147
7:00 PM – 8:00 PM	133
8:00 PM – 9:00 PM	79
9:00 PM – 10:00 PM	39
10:00 PM – 11:00 PM	3
11:00 PM – 12:00 PM	1
Total Pedestrian Crossings	1,552

Speed Data

TPD collected speed data in the study area using Automatic Traffic Recorders (ATRs). **Table 11** summarizes the 85th percentile travel speed at three locations on the Corridor. The 85th percentile speed is the speed at which 85% of drivers travel at or below (or the speed which 15% of drivers exceed).

TABLE 11
SPEED DATA SUMMARY

Data Collection Location	85 th Percentile Speed (2:00 PM on April 11)		85 th Percentile Speed (2:00 AM on April 11)	
	Eastbound	Westbound	Eastbound	Westbound
Market Street Between Route 15 and 7th Street	25 mph	26 mph	28 mph	28 mph
Market Street Between 4 th Street and 3 rd Street	22 mph	19 mph	29 mph	33 mph
Market Street Near Water Street	32 mph	30 mph	31 mph	28 mph

As summarized in **Table 9**, vehicular speeds are higher at the eastern end of the Corridor near Water Street. Pedestrians crossing at the unsignalized intersection of Market Street & Water Street to access Soldiers Park are exposed to this higher speed traffic. The data also shows that the 85th percentile speeds between Third Street and Fourth Street are significantly higher overnight when there is less traffic on the road.

It should be noted that this speed data was collected using Automatic Traffic Recorders (ATRs), and includes vehicles that are slowing or stopping due to traffic signals and traffic slowdowns. Due to the complexity of a dense Main Street environment, a stand-alone speed study conducted using a radar gun may provide a more accurate indication of free-flow traffic speeds.

Engineers commonly review the 85th percentile speed when setting the speed limit. However, the 85th percentile speed is just one factor considered by engineers when setting speed limits. Engineers also consider traffic and infrastructure conditions such as pedestrian use, roadway characteristics, and adjacent development.

In accordance with §212.108(b) of PennDOT Publication 212, speed limits may be reduced up to 10 miles per hour below the 85th percentile speed if there are sight distance restrictions (stopping and corner sight distance), or the majority of crashes are related to excessive speed and the crash rate is greater than the applicable rate in the most recent high-crash rate or high-crash severity rate table.

CRASH DATA ANALYSIS

SEDA-COG's *Long Range Transportation Plan, 2016-2040* includes a chart (Table 23) that identifies High Crash Locations in the region. Location 12 on that list is Route 45 in Union County from Segment 430 Offset 1642 to Segment 480 Offset 1161. This location is approximately two miles in length, from Bull Run Crossing in East Buffalo Township to Water Street in Lewisburg.

TPD obtained crash data from PennDOT's Bureau of Highway Safety & Traffic Engineering and the Buffalo Valley Regional Police Department for the Market Street Corridor. TPD reviewed the data on reportable crashes for the five-year period beginning 01/01/2014 and ending 12/31/2018. The crash data is confidential and therefore is not included in this report.

PennDOT defines a reportable crash as follows, "A reportable (crash) is one in which an injury or fatality occurs or if at least one of the vehicles involved requires towing from the scene." Minor crashes often go unreported, and even crashes where police are called may not be listed as a "reportable" crash if there are no injuries and no vehicles are towed from the scene. Additionally, there may be many "near-misses", where crashes are narrowly avoided. The FHWA Highway Safety Improvement Program Manual offers the following definition of near-misses:

Near-misses are conflicts which occur between road users but do not result in a crash. The frequency of near-misses is sometimes used as a rough proxy for safety. The advantage of this metric is it allows for analysis of a large number of events, since near-misses are much more frequent than crashes. On the other hand, collecting near-miss data is labor-intensive, and usually is collected only at select locations. Moreover, near-misses do not reflect fatality and injury outcomes.

Due to data limitations, this crash analysis is based on reportable crashes only and does not consider non-

reportable crashes or near-misses. The study area for this analysis was Market Street from Route 15 to the Susquehanna River Bridge. **Figure 13** depicts the crash types and locations during the five-year analysis period. A full-size version of this graphic is included in **Appendix F**.

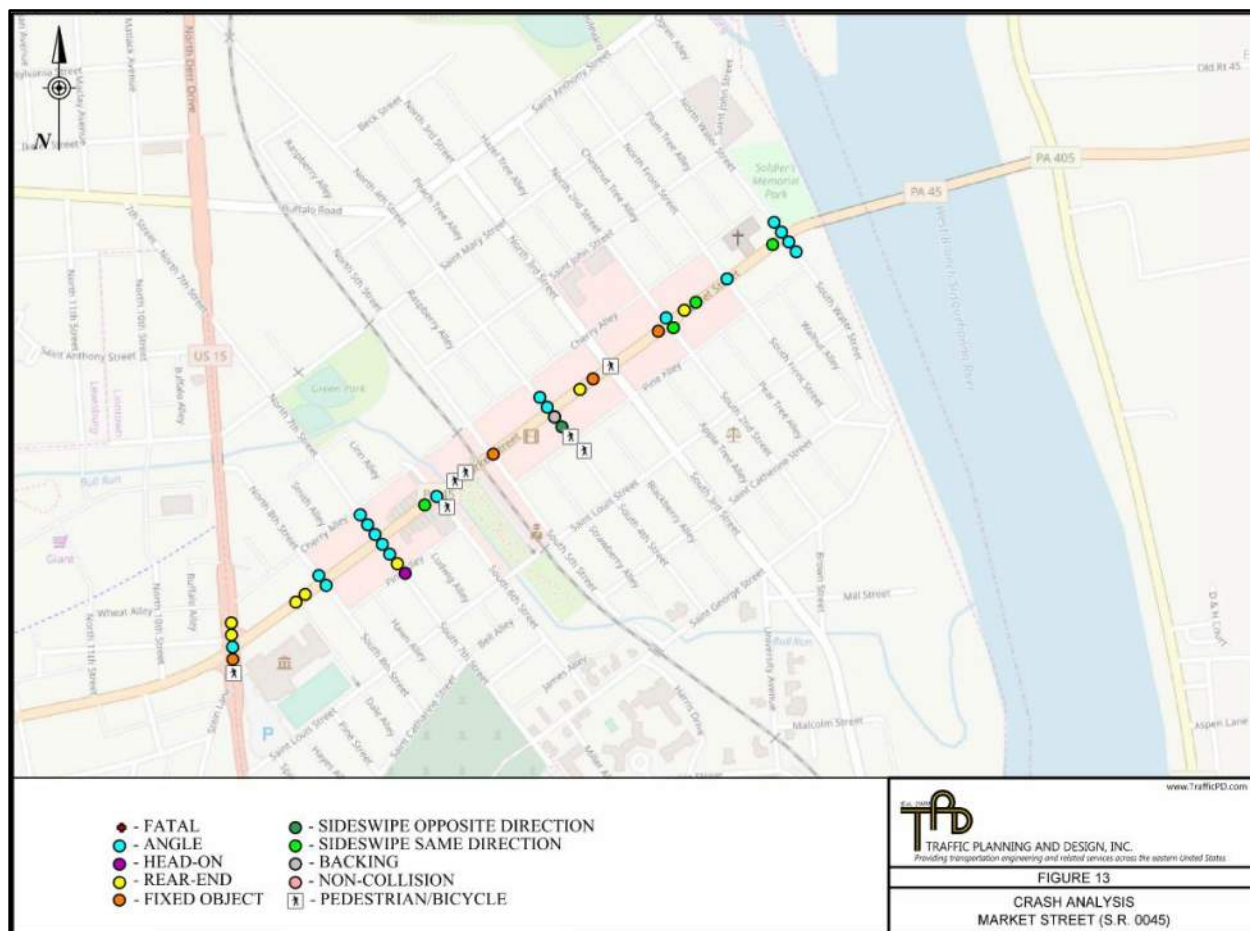


Figure 13: Crash types and locations

Crashes Involving Heavy Vehicles

Of the 72 total vehicles involved in reportable crashes, 15 vehicles (21 percent) were small or large trucks. Based on data collected immediately west of Water Street on Thursday, April 11, 2019, heavy vehicles only make up 9 percent of traffic volumes on Market Street. Therefore, the data indicates that trucks are more likely than other vehicle types to be involved in a reportable crash.

A 2018 report from the U.S. Department of Transportation titled *Optimizing Large Vehicles for Urban Environments* found that “nationally, large trucks comprise 4% of the U.S. vehicle fleet, yet are involved in 7% of pedestrian fatalities, 11% of bicyclist fatalities, and 12% of car and light-truck occupant fatalities”. Both nationally and locally, the data indicates that large trucks are disproportionately likely to be involved in serious crashes.

Crashes Involving Pedestrians

Seven of the 42 reportable crashes (17 percent) during the five-year period involved a pedestrian being struck by a vehicle. Three of the crashes occurred at signalized intersections and two occurred at non-signalized locations. For comparison, during the same five-year period approximately 3 percent of all crashes in Pennsylvania were classified as “hit pedestrian”. This comparison is based on data obtained from *Pennsylvania Crash Facts and Statistics* report published by PennDOT’s Bureau of Maintenance and Operations.

Crash Rate Calculation Analysis

The crash rate for Market Street was calculated based on the following equation:

$$\text{Crashes / Million Vehicle Miles / 5 Years} = \frac{(\# \text{ Crashes in past 5 years}) (10^6) (5,280\text{ft})}{(\text{ADT})(365 \text{ Days})(5 \text{ years})(\text{Segment length in feet})}$$

The Corridor has the following characteristics:

Length: 3,665 feet

ADT: 10,398 vehicles per day

(Weekday ADT between Third Street and Fourth Street during week of 4/8/19)

Total number of reportable crashes (5 years): 42 Crashes

Number of reportable crashes involving pedestrians (5 years): 7 Crashes

Based on this calculation, the crash rate for the segment is 3.19 crashes per million vehicle miles. Crashes involving pedestrians occurred at a rate of 0.53 crashes per million vehicle miles. **Table 12** compares the crash rates for Market Street to the crash rates for other state roads in Pennsylvania with similar characteristics. The statewide average crash rates were obtained from PennDOT’s *Homogenous Report for State Road Crashes in Years 2014 to 2018*.

TABLE 12
ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Roadway	Overall Crash Rate	Crash Rate for Crashes Involving Pedestrians
Market Street	3.19	0.53
Statewide Average*	1.93	0.08

*For state roads classified as urban, non full-access controlled, undivided, with a width of 36-40 feet and an ADT of 10,000-99,000

As shown in **Table 12**, the overall crash rate for the Corridor is twice as high as the statewide average for similar roadways. The crash rate for crashes involving pedestrians occurred at a rate of 0.53 crashes per million vehicle miles, which is significantly higher than the statewide average of 0.08 crashes per million vehicle miles. **By this estimate, a crash involving a pedestrian is more than five times more likely to occur Market Street than on an average roadway with similar characteristics.**

TPD utilized the weekday ADT recorded between Third Street and Fourth Street because the majority of crashes occurred west of Third Street. The weekday ADT recorded near Water Street is 16,769. If this ADT was utilized for the crash rate calculations it would yield an overall crash rate of 1.97 crashes per million vehicle miles and a pedestrian crash rate of 0.33 crashes per million vehicle miles.

TRAFFIC SIGNAL PHASING ANALYSIS

There are four signalized intersections within the Lewisburg Historic District:

- » Market Street & Seventh Street;
- » Market Street & Fourth Street;
- » Market Street & Third Street;
- » Market Street & Second Street.

The intersection of Market Street & Seventh Street is isolated, and the other three signals are part of a coordinated system. Each of the four signals is equipped with an exclusive pedestrian phase. All four signals are semi-actuated, meaning the minor street green phase only occurs when a vehicle is detected and the exclusive pedestrian phase only occurs when a pedestrian pushes the button. The PennDOT-approved traffic signal plans are included in **Appendix B**.

TPD evaluated the existing phasing and operations at the four intersections to assess whether potential phasing modifications could improve safety and balance the needs of all roadway users. Based on field observations and feedback received from the community TPD identified the following issues:

Vehicle Change and Clearance Intervals

The vehicle change and clearance intervals at a traffic signal consist of the yellow change interval and an all-red clearance interval. The purpose of the vehicle change and clearance intervals are to allow a motorist to safely stop the vehicle under normal conditions, or if he/she is too close to stop, then to proceed through the intersection safely.

Community members have reported that motorists, and especially trucks, routinely run red lights, creating conflicts with pedestrians and opposing traffic. Residents have observed that many cars follow too closely behind trucks, which may obstruct the driver's view of the signal head. There have also been reports of conflicts between pedestrians and vehicles making a left-turn at the end of the yellow phase. Each of the four signals currently has a yellow change interval of 3.5 seconds followed by an all-red clearance interval of 1 second, for a total of 4.5 seconds.

TPD performed updated clearance time calculations for each of the four signals. Based on these calculations, TPD recommends increasing the total yellow and all-red clearance intervals from 4.5 seconds to 6.0 seconds. This may be accomplished by increasing the all-red clearance interval from 1 second to 2.5 seconds. The clearance time calculations are included in **Appendix G**.

Pedestrian Phasing

Each of the four signals are equipped with exclusive pedestrian phasing. At three of the intersections, the exclusive pedestrian phase occurs after the Market Street green phase. At the intersection of Market Street & Seventh Street the exclusive pedestrian phase occurs before the Market Street green phase. Pedestrians are not permitted to cross when the parallel traffic has a green light. Under the current phasing plan pedestrians may have to wait through multiple phases after pushing the button to request a 'walk' phase.

Data collected by one resident and provided to the project team illustrates the experience of pedestrians:

During the months of March, April and May 2008 I recorded my experiences at this

intersection 48 times, typically at about 8am or 5pm. This was before the camera system was installed so I am not sure how relevant the data is to the current design. I will attach my raw data to this form.

The average wait time from button push to pedestrian walk = 32 sec, max wait time = 75 sec. On 9 occasions out of 48 (19%) I had to wait more than one full light cycle. In these cases, the shortest wait time was 59 sec.

TPD reviewed the existing phasing plans for the three coordinated signals at Fourth, Third, and Second Streets. It appears that if the pedestrian arrives (and presses the button) during Phase 2 they would typically wait less than 30 seconds for the 'walk' phase. However, if a pedestrian arrives during Phase 4 they can expect to wait 30 to 60 seconds. If a pedestrian arrives during Phase 3, they must wait through the end of the Market Street phase, through the full side street phase, and then through the full Market Street phase again before the all-pedestrian phase occurs, which may be a total of 60 to 90 seconds after they pushed the button.



Daycare teachers with toddlers out for their daily walk around downtown Lewisburg, waiting for the signal to cross Third Street, at the Corner of Third and Market Streets. (Photo: June 2019)

The FHWA's Pedestrian Safety Guide and Countermeasure Selection System notes that "[w]hen pedestrians are required to wait a long time for a pedestrian interval, many will simply choose to ignore the signal and cross during a gap in traffic, negating the potential safety benefits of the exclusive signal." The FHWA Course on Bicycle and Pedestrian Transportation (Section 15.5) notes that **"Many pedestrians stop watching for lights and, instead, look for gaps to cross streets when their delay exceeds 30 seconds."** The Transportation Research Board's *Highway Capacity Manual* (HCM 6) also states that "In general, pedestrians become impatient when they experience delays in excess of 30 [seconds] and there is a high likelihood of their not complying with the signal indication. In contrast, pedestrians are very likely to comply with the signal indication if their expected delay is less than 10 [seconds]."

TPD evaluated several different phasing alternatives to reduce the pedestrian delay. For the purposes of this comparison, TPD performed capacity analysis using Synchro 10 software for the weekday P.M. peak hour of traffic (3:30 P.M. to 4:30 P.M.) at the intersection of Market Street & Third Street. It should be noted that the calculated average delay for vehicles and pedestrians will vary depending on the time of day and the intersection. The results are summarized in **Table 13**. The Synchro worksheets are included in **Appendix H** and the pedestrian delay calculations are included in **Appendix I**.

TABLE 13
PHASING ALTERNATIVES SUMMARY – WEEKDAY P.M. PEAK HOUR ANALYSIS

	Phasing Alternative	Average Pedestrian Delay	Longest Pedestrian Delay	Average Vehicular Delay
1	Existing Signal Phasing (Actuated Exclusive Pedestrian Phase)	40 seconds	90 seconds	26 seconds
2	Reduce Cycle Length During Peak Periods (70 Second Cycle Length During PM Peak Period)	30 seconds	70 seconds	29 seconds
3	Pedestrian Phase Each Cycle (No Actuation)	34 seconds	80 seconds	31 seconds
4	Pre-Timed/Coordinated Phasing (Every Phase Occurs During Each Cycle)	34 seconds	80 seconds	30 seconds
5	Two Exclusive Pedestrian Phases Per Cycle (May Occur After Market St. or Minor St.)	19 seconds	50 seconds	51 seconds
6	Exclusive and Concurrent Pedestrian Phases (Pedestrians May Cross with Parallel Traffic)	8 seconds	46 seconds	29 seconds
7	Eliminate Exclusive Pedestrian Phase (Add Leading Pedestrian Interval)	13 seconds	45 seconds	15 seconds

The phasing alternatives are described in more detail below:

1. Existing Signal Phasing

Currently the pedestrian phase and the minor street green phase are both actuated phases. The pedestrian phase only occurs when a pedestrian pushes the button and the minor street green phase only occurs when a vehicle is waiting at the stop bar. The green phase on Market Street may be extended if the pedestrian phase is skipped or the green phase may start early if the minor street phase is skipped or ends early. The cycle length during the weekday P.M. peak hour is 90 seconds. Due to the pedestrian signal delay described above, pedestrians may choose to ignore the signal and cross if and when there is a gap in traffic. This lack of compliance can negate the safety benefits of this pedestrian signal phasing.

The implementation of extended vehicle change and clearance intervals as recommended above would reduce conflicts at the start of the exclusive pedestrian phase. For consistency purposes, the

phase order at the intersection of Market Street & Seventh Street could be revised so that the pedestrian phase follows the Market Street green phase.

2. Reduce Cycle Length

The existing cycle length is 70 seconds from 6:00 A.M. to 10:30 A.M. and from 7:30 P.M. to 8:00 P.M. However, from 10:30 A.M. to 7:30 P.M. the existing cycle length ranges from 80 to 90 seconds. Reducing the cycle length to 70 seconds at the four signalized intersections during all daytime hours would reduce pedestrian delay by providing more frequent pedestrian phases.

3. Pedestrian Phase Each Cycle

The exclusive pedestrian phase would be called during each cycle. Pedestrians would no longer have to push the button to actuate the pedestrian phase. This would reduce the average pedestrian delay and ensure that no pedestrians have to wait through multiple Market Street green phases. It may be possible to alter the recall mode so pedestrians need to push the button during late night hours, along with a reduced cycle length to minimize pedestrian delay. It should be noted that this alternative would increase vehicular delay on the Corridor, as the exclusive pedestrian (all-red) phase would occur even when no pedestrians are present.

4. Pre-Timed/Coordinated Phasing

Under pre-timed operation the pedestrian and minor street phases occur at a fixed length during each cycle, even when there is no demand. As a result, the coordinated system could provide a green phase on Market Street at a more predictable interval, which can create a more noticeable "green wave" for traffic in one direction. The average delay for motorists would increase because the minor street phase and exclusive pedestrian phase would occur during each cycle.

5. Two Exclusive Pedestrian Phases Each Cycle

The exclusive pedestrian phase could be called after either the Market Street phase, the minor street phase, or both. Further research is needed to confirm that this phasing is feasible with the existing traffic signal controller. The average delay for motorists would increase significantly, which may result in excessive queuing throughout the corridor.

6. Exclusive and Concurrent Pedestrian Phases

TPD analyzed an alternative where pedestrians would receive a "walk" signal during the exclusive pedestrian phase as they do under existing conditions, but would also receive a "walk" signal concurrently with the parallel green light. Further research and discussion with PennDOT is needed to evaluate the feasibility of this phasing and investigate potential safety concerns. This phasing would be unconventional and may result in a pedestrian misinterpreting a "walk" signal.

7. Replace Exclusive Pedestrian Phase with Leading Pedestrian Interval

The exclusive pedestrian phase would be eliminated. Pedestrians would receive a "walk" signal concurrently with the parallel green light. The cycle length could be reduced to 65 seconds during most of the day. A six-second leading pedestrian interval (LPI) would be added at the start of each signal phase. The leading pedestrian interval (LPI) would give pedestrians the opportunity to begin crossing Market Street before vehicles on the minor street are given a green indication. The Federal Highway Administration (FHWA) has identified LPIs as a proven safety countermeasure, as they increase the visibility of crossing pedestrians and increase the likelihood of motorists yielding to pedestrians. By allowing pedestrians to cross with parallel traffic and reducing the cycle length, this

combination of treatments would significantly reduce the delay for pedestrians crossing the street. Vehicular delay would also be reduced.

Based on this analysis, Alternative 2 and Alternative 7 provide the best balance between minimizing pedestrian delay and minimizing vehicular delay. Alternative 2 focuses on iterative improvements to reduce pedestrian delay while retaining the exclusive pedestrian phase, and may be implemented in conjunction with longer all-red clearance intervals and other minor changes.

Alternative 7 would further reduce delays for both pedestrians and motorists by replacing the exclusive pedestrian phase with leading pedestrian intervals (LPI). The existing exclusive pedestrian phases allow pedestrians to cross without any conflicts with turning vehicles, but delays in excess of 30 seconds may reduce pedestrian compliance. Leading pedestrian intervals have been endorsed by the FHWA as a proven safety countermeasure, and the reduction in pedestrian delay may improve pedestrian compliance. This change would require an educational campaign for both motorists and pedestrians to avoid any unexpected conflicts.

TPD recommends that the Borough implement Phasing Alternative 2 and monitor the impact on pedestrian and vehicular delay. If the phasing change does not achieve the Borough's goals for reduction in delay then Phasing Alternative 7 should be considered.

Off-Peak Vehicle Progression and Speed

Each of the four traffic signals are semi-actuated, and the recall mode is set so that the side street phase and all-pedestrian phase are called only when actuated. The signals operate in "Free Mode" after 8:00 P.M. on weeknights. As a result, residents report that the signals primarily dwell in the green phase on Market Street during overnight hours. Vehicles passing through the Corridor, including heavy truck traffic, are able to pass through the entire Historic District at elevated speeds without stopping. TPD considered a few phasing alternatives to alleviate this issue.

The first alternative considered was utilizing flashing operation of signals during the overnight period. The intent of providing a flashing yellow signal to Market Street traffic and a flashing red signal to minor street traffic would be to slow the travel speeds of traffic passing through the Historic District. An initial assessment found that the traffic volumes are generally within the range that PennDOT would consider flashing operation. However, there are two potential concerns with this approach. First, pedestrians would no longer receive a 'walk' phase to cross Market Street during this period. Second, motorists approaching the minor street approaches would need to wait for a gap in traffic as if they have a stop sign. The sight distance at many of the minor street approaches may be limited by on-street parking and buildings.

A second alternative would be to adjust the phasing during overnight hours to create a coordinated "green band" as a desirable travel speed. This would require changing the recall mode for the minor street from non-locking to minimum recall, so that a short side street phase is called up each cycle. The exclusive pedestrian phase would be called up upon actuation.

TPD recommends the second phasing alternative, which has the potential to discourage excessive speeding during off-peak hours while still accommodating minor street traffic and pedestrians. Based on daily traffic trends TPD recommends implementing this phasing from 9:00 P.M. to 5:00 A.M., seven days a week. The timing should be set to achieve a "green band" for vehicles traveling approximately 20 mph.

NOISE LEVEL AND VIBRATION DATA ANALYSIS

Noise Level Study

Terra-Mechanics, Inc. conducted noise level monitoring along the Market Street Corridor from April 8, 2019 through April 10, 2019. The study included sound level measurements at ten (10) pre-determined monitoring locations. The noise monitor receptor locations are illustrated in **Figure 14** below. Terra-Mechanics, Inc. documented the precise locations of each receptor in the noise level report, which is included in **Appendix J**.

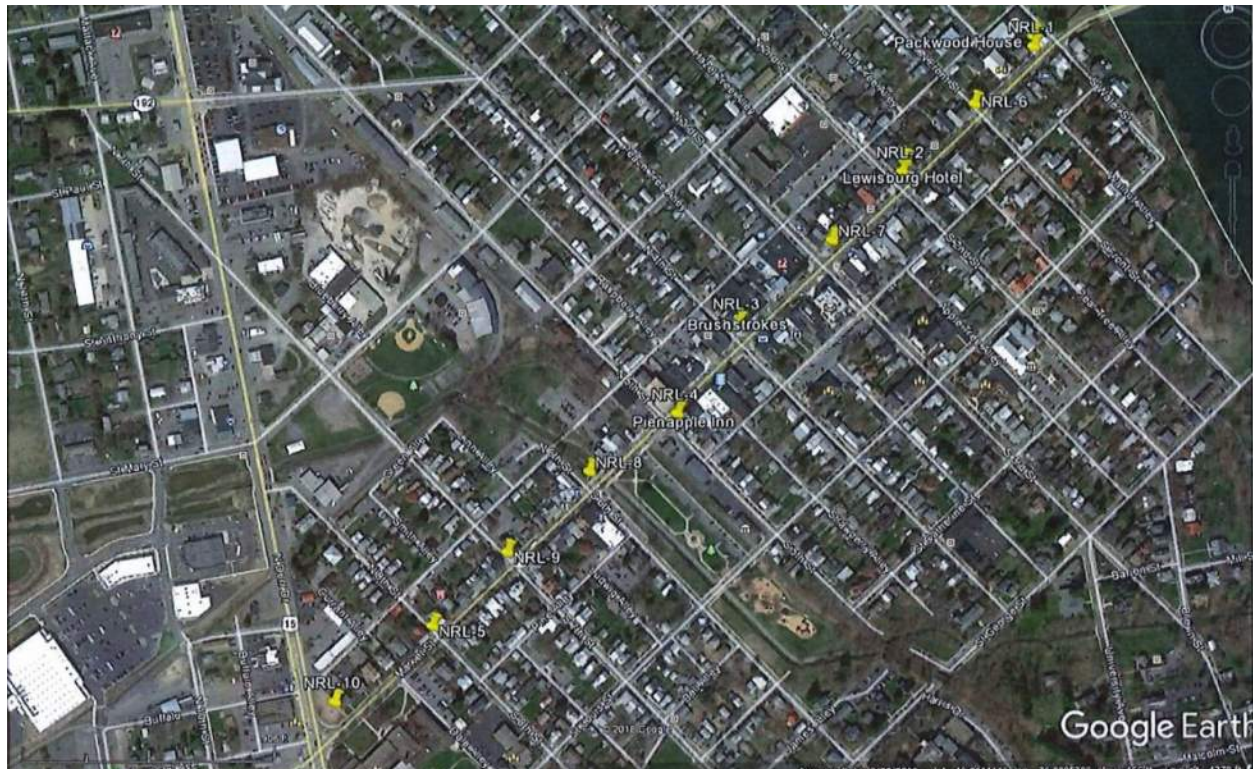


Figure 14: Location of noise monitor receptors, see yellow push pins

Terra-Mechanics, Inc. provided the following summary of their findings (emphasis added):

***“Overall, for the four (4) longer duration and the overnight data collection periods, the L_{max} levels were quite high and were overall much higher than most of the PennDOT ambient background construction studies we have worked on in the past. The L_{10} levels were also higher than many of the previous PennDOT background studies we have worked on. For example, on a recent PennDOT project, the L_{10} levels were in the range of 64.7 to 76.9 for the 7PM to 10PM period or approximately 7-11% less than in the Market Street study and for the 10PM to 7AM period the levels were around 55.2 or 19-24% less. For the same comparison study L_{max} level was 91.7 or 18% less than the maximum L_{max} for the Market Street study. The noise levels in this study were for the most part much higher than typically observed for a PennDOT construction project ambient background study.*”**

"Also, it appears that for the structures in this study, **the noise levels appear to be causing some noise-induced vibrations inside the buildings**. One example of this appears to be for 130 Market Street location, second floor — we observed vibration readings of 0.052 in/sec and 0.050 in/sec, refer to the appendix — event reports for 4/13/19 and 4/14/19.

"For comparison purposes, although there may be some data collection variables, a comparative chart of noise levels is attached in the appendix of this report (Appendix D). The maximum noise levels recorded in this study were in the range of 94-110 dBA."

The comparative chart of noise levels referenced in the findings above is shown in **Figure 15** below.

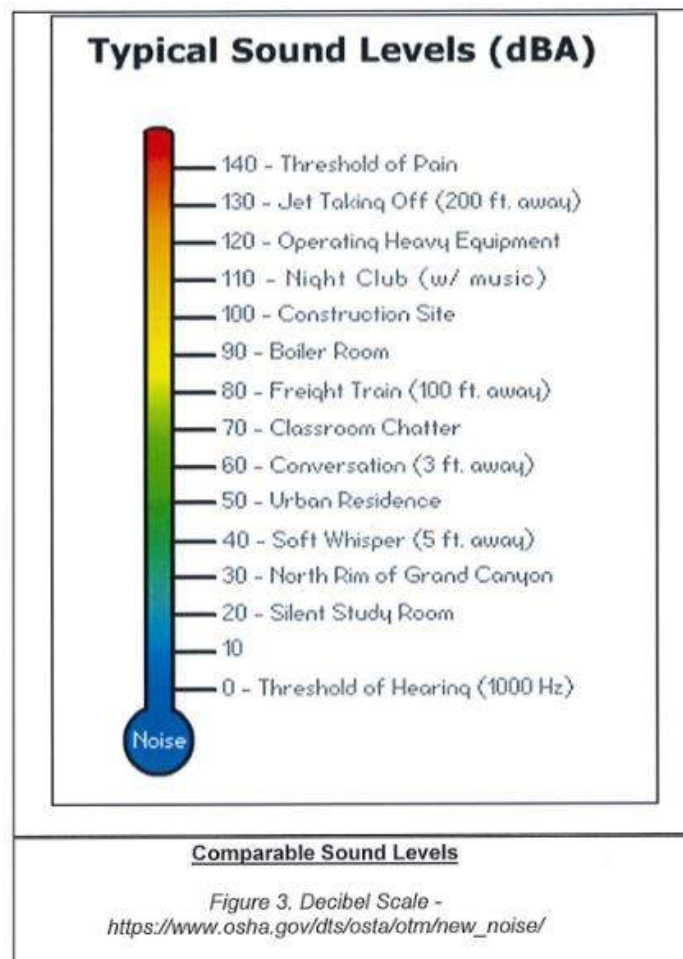


Figure 15: Comparative chart of noise levels

Overall, these findings – that the everyday noise levels in the community are similar to a typical construction site – is reflected in the comments received from the community. One resident commented that

"It can be so loud that we cannot hear conversations inside our house over the noise from the street. It also means we never open our windows or use our front porch (which is one of our favorite parts of our house)."

Several business owners expressed that the constant noise of the truck traffic is negatively impacting their business:

"Our B&B guests, no long will stay in the beautiful bedrooms that face onto Market Street, which used to be the most desirable, due to the constant noise (day and night) from heavy freight vehicles. Thus, in addition to all the above-mentioned costs, we lose revenue every day, because we no long can rent our prettiest rooms along what used to be lovely Market Street, in Lewisburg, PA."

The full noise level report is included in **Appendix J**.

Vibration Monitoring

Terra-Mechanics, Inc. (TMI) conducted traffic vibration monitoring along the Corridor from April 8, 2019 through April 17, 2019. TMI collected data at eleven (11) locations within buildings along Market Street. The seismograph locations are illustrated in **Figure 16** below. Terra-Mechanics, Inc. documented the precise locations of each seismograph in the full vibration data report, which is included in **Appendix J**.

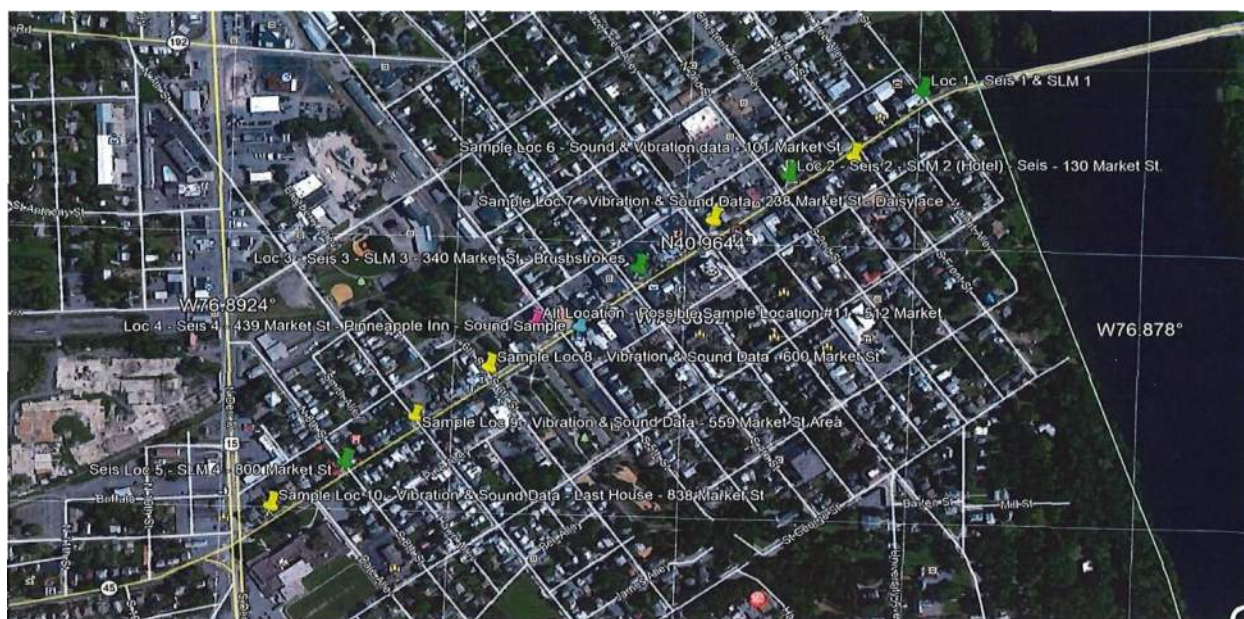


Figure 16: Location of seismographs, see yellow push pins

In summarizing their findings, Terra-Mechanics, Inc. noted that "The vibrations in this case would have been in the perceptible level at almost all the recording locations." Their report also note that vibration levels were higher on the upper floors of the buildings and in the sidewalks closer to the traffic. Residents submitted comments reflecting this concern:

"The vibrations from the traffic- The vibrations are so bad that our house often shakes when trucks wiz by, and we are concerned about what it will do to our historic house, which was not built to withstand that type of wear"

The data collected by Terra-Mechanics, Inc. indicates that vibrations would be perceptible by people on the street and inside adjacent buildings. This is consistent with the daily experience of those who live and work in the Historic District. Vibration levels are particularly high on the upper floors, where residents sleep. This

has a major impact on quality of life, because homes and businesses in the Historic District are located immediately adjacent to the street.



Homes and businesses in the Historic District are located immediately adjacent to the street.

The full vibration data report is included in **Appendix J**.

Pavement Condition

Based on the core boring samples taken along the Market Street Corridor by Stahl Sheaffer Engineering, LLC., TPD evaluated the condition of the Market Street pavement to identify any existing deficiencies and the potential for longer term damage due to current traffic conditions. The Market Street corridor consists of an approximately 4"-5" concrete subbase, with a 4" brick base and asphalt base and wearing courses that vary from 3.5" to 5.5" for a total pavement thickness of 8.5"-13". It should be noted that according to PennDOT records, the concrete and brick courses were installed in the early 1900's.

Based on the average pavement course thicknesses, TPD evaluated a 12-inch pavement section consisting of 4-inches of concrete, 4-inches of brick, and 4-inches of asphalt. Traffic counts conducted immediately west of Water Street on April 11, 2019 show that heavy vehicles account for approximately nine percent (9%) of traffic on Market Street. The preliminary pavement evaluation indicates that the current levels of heavy vehicle traffic may shorten the life of the existing pavement structure. The base materials present in the pavement structure, including the brick and concrete, were installed at a time when the roadway loads that are experienced today did not exist.

Pavement reconstruction and rehabilitation projects have a significant negative impact on the surrounding business community. Due to Market Street's important role as a regional "Main Street", there is a major economic benefit to reducing the duration and frequency of roadway maintenance projects. Reducing the number of heavy vehicles on the roadway may extend the life of the existing pavement structure, allowing PennDOT to redirect resources to other critical needs and minimizing the impact to local businesses. When pavement rehabilitation is necessary, the Borough should coordinate with PennDOT to identify the least impactful resurfacing techniques.



Collapsed manhole repairs, due to heavy vehicles, Market & Third Streets, Spring 2019.

PUBLIC SAFETY

Concerns of Emergency Response Professionals

TPD spoke with local leaders and first responders to better understand how increased freight traffic on the Market Street Corridor through the Historic District affects public safety. TPD received feedback from the William Cameron Engine Company, Union County Emergency Management, and the Buffalo Valley Regional Police Department, as well as from members of the community. The following concerns were raised:

Constrained Width of Corridor

The width of the travel lanes on Market Street ranges from 10 to 14 feet through most of the Historic District, and these lanes are immediately adjacent to heavily used on-street parking on one or both sides of the street and busy sidewalks. In addition, the narrow width of the Borough's perpendicular streets and tight curb radii make it impractical and potentially dangerous for trucks to turn off of Market Street onto Borough cross streets. Therefore, most trucks continue straight through the entire nine blocks of the Market Street Corridor in the Historic District.

"As the primary fire and emergency services agency for the Greater Lewisburg Area, we have experienced significant challenges accessing emergency scenes on and around Market Street. The increased truck traffic has impacted our ability to rapidly respond to and mitigate emergencies as well as places our department's members along with the community at increased risk.

"Traversing Market Street has become hazardous and virtually impossible to navigate due to increased truck traffic." - James J. Blount III, Fire Chief, William Cameron Engine Company

Smaller passenger cars are able to pull over and allow emergency vehicles to travel down the center of the street, but large vehicles have great difficulty turning onto a side street or pulling over to create adequate room for emergency vehicles to pass safely. During periods of high volume traffic, community statements and photos show that EMS vehicles can even become trapped within the Corridor or blocked from providing rapid, life-saving responses to emergencies.

James J. Blount, Fire Chief of the William Cameron Engine Company in Lewisburg expressed the following concerns in a letter to TPD:

"The truck traffic is causing a delay in emergency response and placing the lives of first responders at unnecessary risk. Our department responds to approximately 50 calls a year on Market Street. Recently we have had mirrors knocked off emergency vehicles due to the large trucks trying to pass. We also have experienced delays in traveling down Market Street due to the trucks not having room to allow emergency vehicles to pass. Responding to the

Lewisburg Bridge, which normally takes less than 2 minutes, took 17 minutes due to the trucks blocking the roadway. Unfortunately, these trucks then take side streets that create additional concern since they can't navigate the tight spaces."

Chief Blount also expressed concern about how large vehicles could obstruct an evacuation route, whether in the case of flooding or for some other issue, such as a large fire:

"The large trucks also disrupt the evacuation routes in downtown Lewisburg. Understanding the downtown Lewisburg area is prone to flash flooding, the large trucks block the evacuation routes of those individuals trying to escape the rising flood waters."

Market Street is located within the 100 year floodplain and the floodway between 5th Street and 7th Street where Market Street crosses Limestone Run. Flash flooding has occurred at this location in the past.



EMS vehicle blocked by truck traffic on Market Street (photo: Winter 2018-2019).



Sheetz fuel truck traveling along Market Street, in front of the historic Art Deco Campus Theater (NRHP), April 12, 2019.

Flammable/Hazardous Materials

Emergency response leaders also expressed concerns about the types of materials that are being transported through the middle of a dense neighborhood. Chief Blount articulated these concerns in meetings and in his letter:

"During this observation, I observed commodities such as gasoline, kerosene, diesel fuel, propane, as well as heating oil being transported along Market Street."

"Due to the density and age of the buildings, trucks carrying highly flammable liquids are extremely concerning. Any rupture or release of the product that ignites or leaks into the waterway could be catastrophic to the downtown Lewisburg area."

The full letter from Chief Blount to TPD is included in **Appendix L**.

Pedestrian and Bicycle Safety

There are high rates of pedestrian activity throughout the study area. At the intersection of Market Street & Fourth Street, the project team recorded 1,552 pedestrian crossings over 24 hours at a single intersection. Therefore, the safety of pedestrians, bicyclists, and other vulnerable road users is a critical concern. Several marked crosswalks within the Historic District are unsignalized and rely on vehicles seeing pedestrians on the corner and yielding appropriately. Large trucks require a longer stopping distance and can obstruct sight distance for vehicles following them.

In 2018, the U.S. Department of Transportation published a report titled *Optimizing Large Vehicles for Urban Environments*. The authors of the report found that “nationally, large trucks comprise 4% of the U.S. vehicle fleet, yet are involved in 7% of pedestrian fatalities, 11% of bicyclist fatalities, and 12% of car and light-truck occupant fatalities.” During the public outreach process, many residents and business owners expressed concerns about pedestrian safety on Market Street.

“We regularly walk up and down Market Street and are constantly worried about our safety and our children’s safety crossing the street (but also even on the sidewalks).”
- Reggie Gazes, Market Street Resident

The U.S. Department of Transportation’s Volpe Center has conducted research and produced policy recommendations on safety technology for pedestrians, bicyclists, and other vulnerable road users. Their research on the effectiveness of Truck Side Guards noted that “crashes involving large trucks are more likely to result in a pedestrian or bicyclist fatality than crashes involving passenger vehicles”. Specifically, the research noted that “during a crash with a truck or other vehicle with high ground clearance, vulnerable road users can fall into the exposed space between the front and rear wheels and suffer fatal crushing injuries.”



Children crossing Market Street at Fifth Street, where there is no traffic signal, (photo, Spring 2019)

The U.S. Department of Transportation report *Optimizing Large Vehicles for Urban Environments* notes several other ways that vehicle size can impact traffic fatalities:

1. Large trucks typically have blind spots that are larger than those of the average car, making it harder for truck drivers to see people or objects directly next to or in front of them.
2. Decreased visibility can also cause drivers to react more slowly to impending collisions.
3. The increased weight of large trucks also means that they stop more slowly than cars and, when they hit people, they do so with increased force.
4. The relationship between vehicle size and increasing pedestrian and cyclist fatalities in the U.S. has also been documented beyond trucks. A recent Detroit Free Press report identified the increasing size of vehicles as the main factor in the U.S. rising fatality rate.

Visitors who drive to Market Street and park to access businesses, entertainment, amenities, and community events are also exposed to the heavy freight traffic, as they exit their vehicles adjacent to the traffic lane or cross the street to reach their destination. Several community members reported that side mirrors of parked vehicles have been knocked off or severely damaged by large freight trucks.

Where conflicts exist between pedestrian and bicycle safety and heavy trucks, pedestrian and bicycle safety must be the number one priority.

"Historic downtown Lewisburg, where residents and visitors shop, eat and do business, attracts pedestrians year round and makes our area a special place to live, work and go to school. Indeed, Bucknell points with pride to our charming, vibrant downtown when recruiting prospective students and employees.

"The University believes that the recent increase of vehicular traffic on Market Street threatens the appeal and usability of this distinctive regional asset. We are particularly concerned about the safety of pedestrians, who face an increasing challenge as they attempt to cross streets in our historic area, the scale of which was not designed to support the high volume of cars and trucks seen today. Additionally, the related increase in noise and pollution reduces the quality of life in this neighborhood, which is a designated National Historic District. Taken together, these factors jeopardize the legacy created by generations of Lewisburg residents and downtown business owners."

*- David J. Surgala, Vice President for Finance & Administration,
Bucknell University*

Damage to Community Property

Due to the constrained environment, large freight vehicles periodically damage public and private property within the Historic District. In some instances trucks have damaged the globes on Lewisburg's 1915 signature street lights, which line all Historic District streets.

In the case of some of the narrowest streets, the Borough has had to turn its iconic street light fixtures from a perpendicular position to a position that is parallel to the street, in order to reduce destruction of the white street light globes by large freight vehicles. Borough streets and other Borough infrastructure are also damaged by the wear and weight of heavy freight vehicles.

Large freight vehicles also damage street trees and their limbs, which then may fall into and damage the structure of historic buildings. As the comment below illustrates, these instances impose additional costs and hardships on property owners and Downtown Merchants

There are many examples along the Market Street Corridor of conflicts within a confined space, between large freight vehicles and Borough infrastructure or private property. The cost of damage is paid from public funds, in the case of Borough assets, or private funds, in the case of residential and business property, but not by owners of the vehicles that cause the damage.



Historic District three-globe street light (2018)

The Lewisburg community and the Historic District have already lost one of its National Register buildings as a result of a freight truck crash. On August 19, 2014, a freight truck hit a large double home at 842-844 Market Street that was listed on the National Register of Historic Places. Due to extensive damage, the home had to be demolished, and because of pollutants spilled at the time of impact, the land was subject to a lengthy environmental remediation process.

*"Tractor trailer took down neighbor's tree, damaged my façade, damaged sidewalk, damaged business, killed tree. Police didn't even try to cite the company."
- Market Street Merchant, 2019*

The project team solicited additional input from community members (residents, property owners, business owners, employees, and visitors) through numerous methods to help form a more complete understanding of the various viewpoints of users of the Market Street corridor. The project team solicited feedback via: 1) a public meeting with 135 attendees, who made dozens of comments on "visioning boards," 2) the Market Street Corridor Survey on Safety, which received 230 paper and on-line responses, and 3) the Market Street Corridor Feedback Form, which received 40 responses. The project team also reviewed the results of the Downtown Merchants Survey, which, as detailed in Part 1 of this report, received 33 merchant responses, along with 133 merchant comments. In addition, TPD received the results of a community survey conducted by Bucknell University students with 136 respondents, as well as 16 "Letters of Support," from state offices, regional and local organizations and prominent private institutions.

A public meeting was held on Tuesday, April 23, 2019 to solicit feedback from community members. More than 135 members of the community attended the public meeting and provided extensive feedback to the project team. The sign-in sheet for the meeting is included in **Appendix M**. After a brief presentation, residents were invited to provide written feedback to the following prompts. The results are pictured below. For ease of reading the comments received on the display boards are summarized in **Table 14**.



A BIKE & PEDESTRIAN-ONLY ZONE!

Vision and Local Economy

Green
Lots of Trees

The angle of it can save significantly
Currently the job is messy, traffic road.

A place where we can chill outdoors
45%

Bike & pedestrian friendly

Plant 2 rows
Don't obliterate and obliterate
Make parking meter (or at least one that has cash and coin/credit options)

Sanitary

Make sure build an outdoor seating area - instead of very small tables, umbrellas

A lot for community gatherings

EASY TO CROSS ON FOOT

More Bike-pedestrian friendly

Don't obliterate and obliterate
Make parking meter (or at least one that has cash and coin/credit options)

More Pedestrian Oriented

Make parking meter (or at least one that has cash and coin/credit options)

Sanitary

Make sure build an outdoor seating area - instead of very small tables, umbrellas

A lot for community gatherings

EASY TO CROSS ON FOOT

Quiet

Happy Pedestrians

More Bike-pedestrian friendly

More Pedestrian Oriented

A BIKE & PEDESTRIAN-ONLY ZONE!

Vision and Local Economy

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Lots of Trees

The angle of it can save significantly
Currently the job is messy, traffic road.

A place where we can chill outdoors
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Plant 2 rows
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Sanitary

Make sure build an outdoor seating area - instead of very small tables, umbrellas

A lot for community gatherings

EASY TO CROSS ON FOOT



TRAFFIC PLANNING
AND DESIGN, INC.



BANNING LARGE TRUCKS
 PEDESTRIANS & CYCLISTS ONLY
 CLOSED TO TRAFFIC
 Restricting slow truck and carpool lanes vehicles to not have company vehicles not open about noise and pollution
 Focus on the good points of downtown
 There are MANY good points about downtown!
 Ban truck traffic!
 Enforce Per/Bike Lanes. Car or other lanes
 Restrict trucks to those making local deliveries only.
 ENFORCE
 • FAILURE TO YIELD
 • SPEEDING
 • DISCOVER LOADS
 No CARS - PEDESTRIANS & BIKE PATH!
 Traffic the way it will be during Auto Festival.
 Concerted campaign to let drivers know they must stop at crosswalks & drive more slowly for 1 hour
 Make new 1-way street signs more visible
 Making the streets safer with more sidewalks, pedestrian crossings, more trees, more bike lanes, more green space, more water, more people, more fun.
 Limit to one way solution!!
 Limiting truck traffic
 Limit to one way solution!!



TRAFFIC PLANNING
AND DESIGN, INC.



TABLE 14
SUMMARY OF MARKET STREET VISIONING EXERCISE

Market Street today is....	Market Street "tomorrow" should be...	I would improve Market Street by...
<p>"An Area where <u>you cannot</u> hold a conversation outside"</p> <p>"My home! My sweet, quaint, small-town neighborhood... and its being overrun with traffic!"</p> <p>"Staggering under the weight of traffic"</p> <p>"Noisy, unsafe and dangerous to get out of your parking spaces"</p> <p>"Crowded with truck traffic and other vehicular traffic"</p> <p>"A beautiful street that has become NOISY and very hazardous to pedestrians. It is not a great place to sit outside"</p> <p>"Dangerous to cross as a pedestrian"</p> <p>"Unwelcoming!"</p> <p>"A challenging place to find on-street parking"</p> <p>"Today Market Street is a noisy, unpleasant, ordinary small town business street. In line with its architecture and strong community heritage. It is a huge loss and forfeiture of its potential.</p> <p>"Hostile to peds and cyclists"</p> <p>"Market Street today is a bit boring so many stores are "dated" merchandise is old-fashioned. Not enough variety"</p> <p>"Populated by unique businesses"</p> <p>"Noisy"</p> <p>"Very difficult to ride a bike on!"</p> <p>"Beautiful + historic"</p> <p>"a wonderful feature of our area. Great feel and pedestrian environment. But no essential shopping, hard to bike, and noisy"</p> <p>"Dangerous, a freeway with crosswalks, a deterrent to business and shopping"</p> <p>"loud and dangerous, as someone who is disabled, trying to cross the street is very difficult due to level of speed of truck traffic and the delay between pressing the crosswalk buttons and waiting for all 4 directions to turn red."</p> <p>"deteriorating road surface"</p>	<p>"a place for a beautiful walk, full of art, flowers and preserved history"</p> <p>"quiet"</p> <p>"inviting, comfortable to walkers of all ages and ability... free of 18-wheelers and speeders"</p> <p>"a bike and pedestrian only zone"</p> <p>"have walk signals with audio feedback"</p> <p>"easy to cross on foot"</p> <p>"a hub for community gatherings"</p> <p>"Visitor and local friendly"</p> <p>"Happy pedestrians <3"</p> <p>"more bike and pedestrian friendly"</p> <p>"more accessible to individuals with limited personal ability"</p> <p>"quieter.. restricted to trucks making local deliveries. Where cars drive slowly and appreciate the pedestrian nature of our community"</p> <p>"full of opportunities for youth activities"</p> <p>"more pedestrian oriented"</p> <p>"no parking meters! Or atleast ones that take credit cards or mobile payments"</p> <p>"Market Street should be safer to walk – pavement is very cracked and broken in places"</p> <p>"more beautiful"</p> <p>"Green, lots of trees"</p> <p>"the anchor of our sense of community, its just a noisy, trafficky road"</p> <p>"more vibrant business activity after 5pm"</p> <p>"bike and pedestrian friendly"</p> <p>"a place where we can dine outdoors"</p> <p>"pleasant to have lunch outside and speak with our friends. Be able to shop and park without getting run over. Enjoy art, flowers and the quality of life we once had"</p> <p>"welcoming to all pedestrians, etc without fear of being hit by traffic"</p> <p>"Inviting"</p>	<p>"banning large trucks"</p> <p>"pedestrians and cyclists only, closed to traffic"</p> <p>"<u>Restricting</u> semi-truck and construction vehicles. It is not their community and they do not care about noise and pedestrians"</p> <p>"Pedestrians 1st please"</p> <p>"focus on the <u>good</u> points of downtown"</p> <p>"balance vehicle speed with appropriate flow"</p> <p>"enforce failure to yield, speeding, and discover loads"</p> <p>"light times to favor pedestrians"</p> <p>"no cars – pedestrians and bike path"</p> <p>"traffic the way it will be during the art festival"</p> <p>"Ban truck traffic!"</p> <p>"concerted campaign to let drivers know they must stop at crosswalks and drive more slowly for 9 blocks"</p> <p>"restrict trucks to those making local deliveries only"</p> <p>"making the traffic signal buttons logical! Currently, a pedestrian must wait to a long time until all 4 directions turn red"</p> <p>"we need a store that sells milk and eggs"</p> <p>"banning truck traffic"</p> <p>"enforce ped and bike laws, cross at crosswalks"</p> <p>"remove Rt 45's status, for these 8 blocks, as a state arterial, thus allowing imposed weight and noise limits"</p> <p>"limit to two wheeled vehicles!!"</p>

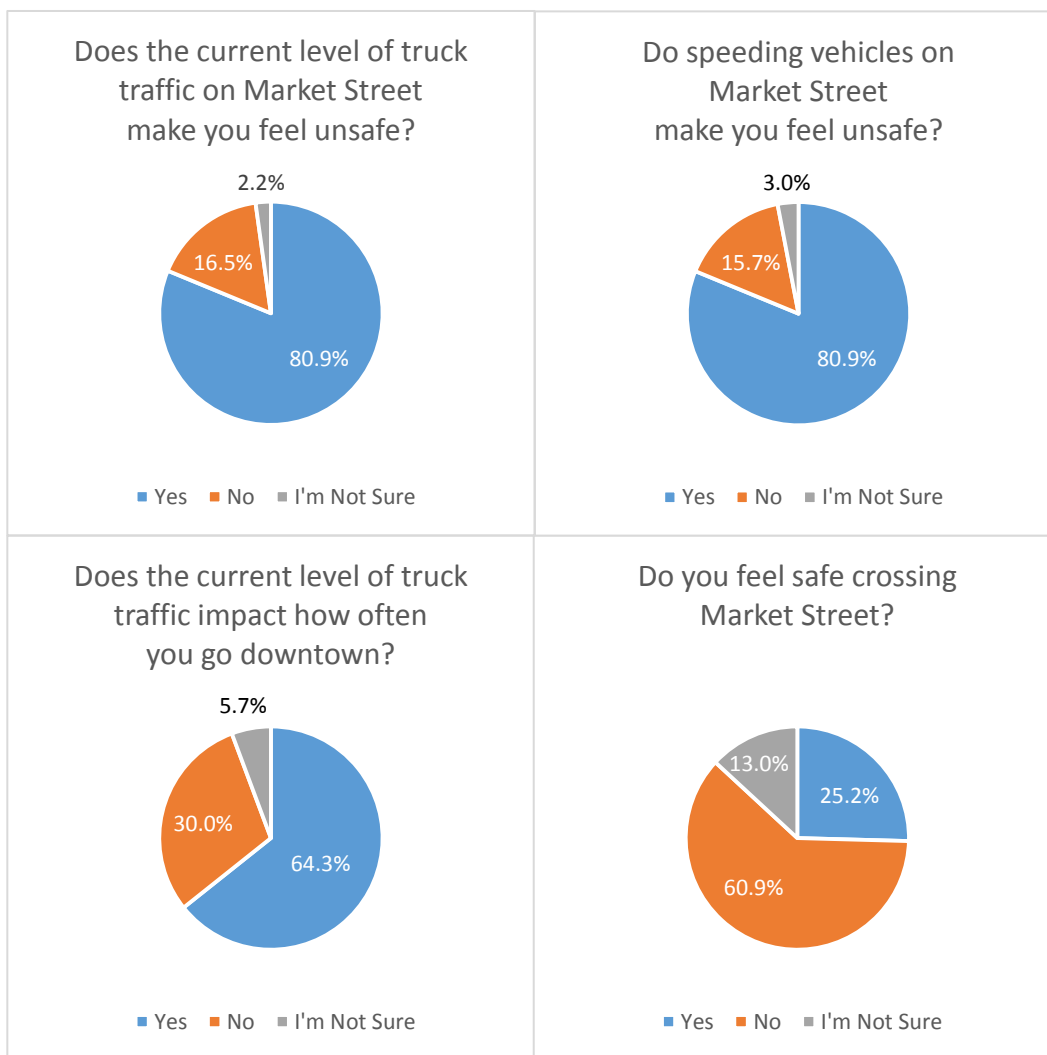
Residents also provided location specific feedback on an aerial photo of Market Street. A copy of the location specific feedback is included in **Appendix M**. The comments are also summarized in **Table 15**.

TABLE 15
SUMMARY OF LOCATION-SPECIFIC FEEDBACK ON AERIAL PHOTO

Western Section (Route 15 to Sixth Street)	Central Section (Sixth Street to Third Street)	Eastern Section (Third Street to Water Street)
<p>Likes: "Love the small town feel that starts here."</p> <p>Concerns: "Cars may turn across Route 15 while people may cross. Dangerous!" "Tree limbs broken by tall trucks"</p>	<p>Likes: "Love the parks on Water and Fifth Street. Love Lewisburg!" "Community Events!" "Hufnagle Park & Kisburg are great (but 6th Street needs a traffic light for safer crossing to parks)" "Sidewalk café eating"</p> <p>Concerns: "Unsignalized crosswalk" (Sixth Street) "Walk not signaled" (Fifth Street) "Hard to cross Market St at 5th Street" "Crosswalk times are too short" (Fourth Street) "Walk signal does not take into account that Fourth Street is southbound one way."</p>	<p>Likes: "Beautiful park greenspace" "Heavily treed sidewalks – charming"</p> <p>Concerns: "Screeching brakes of trucks stopping at the traffic" "Unsignalized crosswalk" (Front Street) "Water Street and Market is a traffic nightmare." "Cars and trucks fly over the bridge in both directions" "Unsignalized crosswalk" (Water Street) "Park under-used by community"</p>

Market Street Corridor Survey on Safety

TPD developed a four-question survey centered around safety related issues along the Market Street Corridor to gauge public perception of traffic related impacts in the study area. In addition to providing the survey to attendees at the public meeting, the Borough also posted the survey on their website for public response. The Borough received a total of 230 responses to the survey, including 62 responses received at the public meeting and an additional 168 responses to the online survey. The results of the survey are summarized below.



As shown in the charts above, a significant majority of respondents indicated that the current volume, speed, and type of traffic creates a negative impact on their use of the Market Street Corridor. More than 60 percent of respondents indicated that they do not feel safe crossing Market Street. The majority of respondents indicated that the current level of truck traffic impacts how often they shop downtown.

The individual Market Street Corridor Survey on Safety responses are included in **Appendix N**.

Market Street Corridor Feedback Form

TPD also developed a feedback form to allow long-form, narrative style responses from stakeholders along the Market Street Corridor. The form provided a uniform method to comment on general concerns or specific incidents relevant to the focus of this study. The electronic form was distributed through the Borough's website and returned to the project team through a project-specific email address. Throughout the comment period, the project team received a total of forty (40) responses. **Respondents who visit downtown eateries noted a hesitation to sit at outdoor restaurant tables due to noise and vehicle emissions, while business and property owners noted a decline in foot traffic through the business district due to noise, emissions, and safety concerns.** Table 16 summarizes the concerns from the feedback forms received. It should be noted that some feedback included more than one topic of concern.

TABLE 16
TOPICS DISCUSSED ON FEEDBACK FORMS

Feedback Topic	Number of Responses
Vehicle Noise	19
Volume of Traffic/Truck Traffic	16
Pedestrian Safety and Visibility	12
Traffic Damage on Buildings	12
Vehicle Emissions	10
Speed	8
Truck Maneuvering at Intersections	4
Impact on Roadway Structure	3
Traffic Blocking Intersections	3
Parking Layout (Pull-In Angle)	3
Intersection Geometry	2
Lack of Bike Lanes	1
Pedestrian Signal Lag Phase	1
Traffic Signal Yellow Times	1
Vehicles Blocking Crosswalks	1
Vehicles Parking on Sidewalks	1
Truck Impact on Emergency Vehicles	1
Truck Breakdowns Blocking Traffic	1

TPD identified recurring topics on the feedback Market Street Corridor Feedback Forms and summarized the common themes expressed by respondents. The feedback is summarized on the following page.

Vehicle Noise

Nineteen (19) responses identified vehicle noise as a concern within the study area. The focus of many of these comments was the negative impact on the shopping and dining experience downtown and the inability to hold conversations due to the noisy street environment. Here are some examples of feedback received from respondents:

- » "Noise is KILLING downtown."
- » "The noise of semitrucks makes it unpleasant to dine outside on Market St. or to come downtown."
- » "I answered question #3 on the survey that the trucks don't curtail my visits downtown, but they curtail the amount of time I spend downtown. I don't like walking around with all the noise and the emissions."
- » "It can be so loud that we cannot hear conversations inside our house over the noise from the street. It also means we never open our windows or use our front porch (which is one of our favorite parts of our house)."
- » "We cannot sit outside to eat or even to converse with others"
- » "I am frequently on Market Street for work and it is virtually impossible to hold a conversation standing on the sidewalk as traffic, particularly truck traffic, is passing you due to the volume of noise."
- » "We have outdoor patio seating for approximately 30, and I feel it personally when my guests' lovely dinners are interrupted by the noise of the truck traffic. I always wish there were something I could do to make it stop!"
- » "Our B&B guests, no long will stay in the beautiful bedrooms that face onto Market Street, which used to be the most desirable, due to the constant noise (day and night) from heavy freight vehicles. Thus, in addition to all the above-mentioned costs, we lose revenue every day, because we no long can rent our prettiest rooms along what used to be lovely Market Street, in Lewisburg, PA."
- » "Trying to be social and visit with friends at the local bar food establishments has also created a hardship. While visiting a friend sitting across the street outside it was annoying and impossible to hold a conversation trying to talk over the truck noise, especially as they come to a quick stop at the red light. They travel way too fast, then use their airbrakes and have to stop quickly at the cross walk. One is taking their own life in their hands at our light crossings."

Volume of Traffic/Truck Traffic

Sixteen (16) responses identified the overall volume of traffic and specifically truck traffic as a concern. The responses included concerns with the amount of time it takes a driver to travel along the Corridor, and the overall capacity of the roadways along the Market Street Corridor. Excessive queueing of vehicles between intersections was noted as a concern for the movement of vehicles and pedestrians through the study area. Here are some examples of feedback received from respondents:

- » "I answered question #3 on the survey that the trucks don't curtail my visits downtown, but they curtail the amount of time I spend downtown. I don't like walking around with all the noise and the emissions."
- » "The constant truck traffic in downtown Lewisburg, especially on Market Street, is eroding the very qualities that make Lewisburg a special town – its historic architecture, the shops that offer alternatives to big box stores and online shopping, and the clean air and quiet ambiance that used to invite you to walk, shop, and eat in Lewisburg."
- » "I now avoid walking Market Street because of the noise, exhaust, and safety issues, and choose to walk at Bucknell instead."
- » "The truck traffic has created a toxic environment on Market Street – speeding, failure to yield to pedestrians, noise affecting retail business, fumes, deterioration of roads and vibrations affecting structures."



Emergency vehicle blocked by traffic.



Truck breakdown blocking Market Street traffic

Pedestrian Visibility at Intersections/Pedestrian Safety

Twelve (12) responses identified pedestrian safety as a concern. The comments related to ability of drivers to see pedestrians at intersections and vice versa due to vehicle queueing discussed above and drivers not yielding to pedestrians within crosswalks.

There were also comments regarding interactions at the two midblock pedestrian crossings. Here are some examples of feedback received from respondents:

- » "My family has almost been struck by trucks going too fast."
- » "We regularly walk up and down Market Street and are constantly worried about our safety and our children's safety crossing the street (but also even on the sidewalks)."
- » "We were walking home from dinner downtown with our children last month when we saw a man struck by a car 20 feet in front of us. Needless to say, that is not the kind of thing children should have to witness in front of their house, at least not on a regular basis."
- » "I am a walker for exercise. For years and years I have walked the same path, as I enter Market Street from the bridge at the end of town, I cannot tell you how many times the trucks come flying off of the bridge entering into the down town. The cross walk is there and never, ever has a truck stopped. It is a state law. I walk daily and at all different times of day. Never once has a truck came off the bridge slow or attempted to stop. Their speed coming into our downtown is concerning. Weis trucks, Coke a Cola trucks and Hub trucks are horrible for this."



Vehicle Crash at Market Street & 8th Street

Traffic Impact on Buildings

Twelve (12) responses identified the impact of traffic on the historic buildings within the Corridor. Numerous examples were provided outlining concerns ranging from stucco falling from facades to the impact of traffic related vibrations on the building foundations and overall structural stability. Here are some examples of feedback received from respondents:

- » "I am also very concerned about what that much heavy traffic is doing to the historic buildings in town, one of the things that makes Lewisburg so special and such an attraction to visitors – and to businesses and residents."
- » "For ten years I was the Educational Coordinator for the Union County Historical Society, and led students on a walking tour of Lewisburg. Greatly interested in architecture, I am concerned with the damage to the foundations and structures of the historic buildings that create the essence of what is "Lewisburg." There must be an alternative to the fact of truck traffic destroying our home town."
- » "The vibrations from the traffic- The vibrations are so bad that our house often shakes when trucks wiz by, and we are concerned about what it will do to our historic house, which was not built to withstand that type of wear."
- » "A college town, to shop, park and walk feeling safe while meandering and strolling thru our town. I would be concerned about the weight of the trucks and how it is affecting my property in regards to structure and if it is being affected by the years and constant weight on Market Street."



Historic Building Damaged by Vehicle Striking Light Post

"Our downtown businesses and overall community livability rely on market Street being a pleasant experience. The noise and sheer scale of these trucks has a significant negative impact on this experience."

- Ted L. Strosser, AIA, Lewisburg Historic Architectural Review Board

Vehicle Emissions

Ten (10) responses identified pollution and vehicle emissions as a concern within the study area. Multiple feedback forms included comments regarding the need to clean storefronts and restaurant tables daily as dirt and emissions from vehicles create a film on outdoor surfaces. Respondents noted the impact to their operations and the time required to complete this additional task that they noted as a new issue caused by traffic changes along the Corridor. Here are some examples of feedback received from respondents:

- » "We have two young children and are concerned about the air quality in our house, yard, and along Market street due to the heavy traffic. The front of our house is constantly covered in a layer of dark dust from vehicle exhaust, and we never open our front windows for fear of that getting into the house and into the growing lungs of our children."
- » "The soot and grease that I clean off of windows and trim on my storefront of my property on a daily basis is unbelievable! I maintain my property and like a clean presentation. I had my front painted before this truck traffic began. Please note: It is my signature color, cream. It always has been since 2000 when I remodeled the storefront. I can't just wipe off the woodwork as it is the diesel fuel which creates a oily film, so I am constantly washing the front down which is creating a hardship raising my water and sewer bills, not to mention all of my time that I should be focused on my business and my art. Our sewer is based off of water consumption, so my sewer bills have become outrageous. If I don't wash the front It looks horrible! All of the years of normal car traffic this was not a daily occurrence, me out washing my front constantly. When I am out front washing and passerby's stop to talk the noise level is deafening, making it very difficult to try to maintain our small town charm which is what has been unique to our area."
- » "While washing my front down the other day, on a Sunday Washing my front down for hours a green Hub truck came flying thru, barely stopping for the light. I watched as he slammed his brakes on missing 2 ladies who just crossed in the cross walk. The reason I saw this was because his speed caught my attention and I turned to look at the driver to shame him."



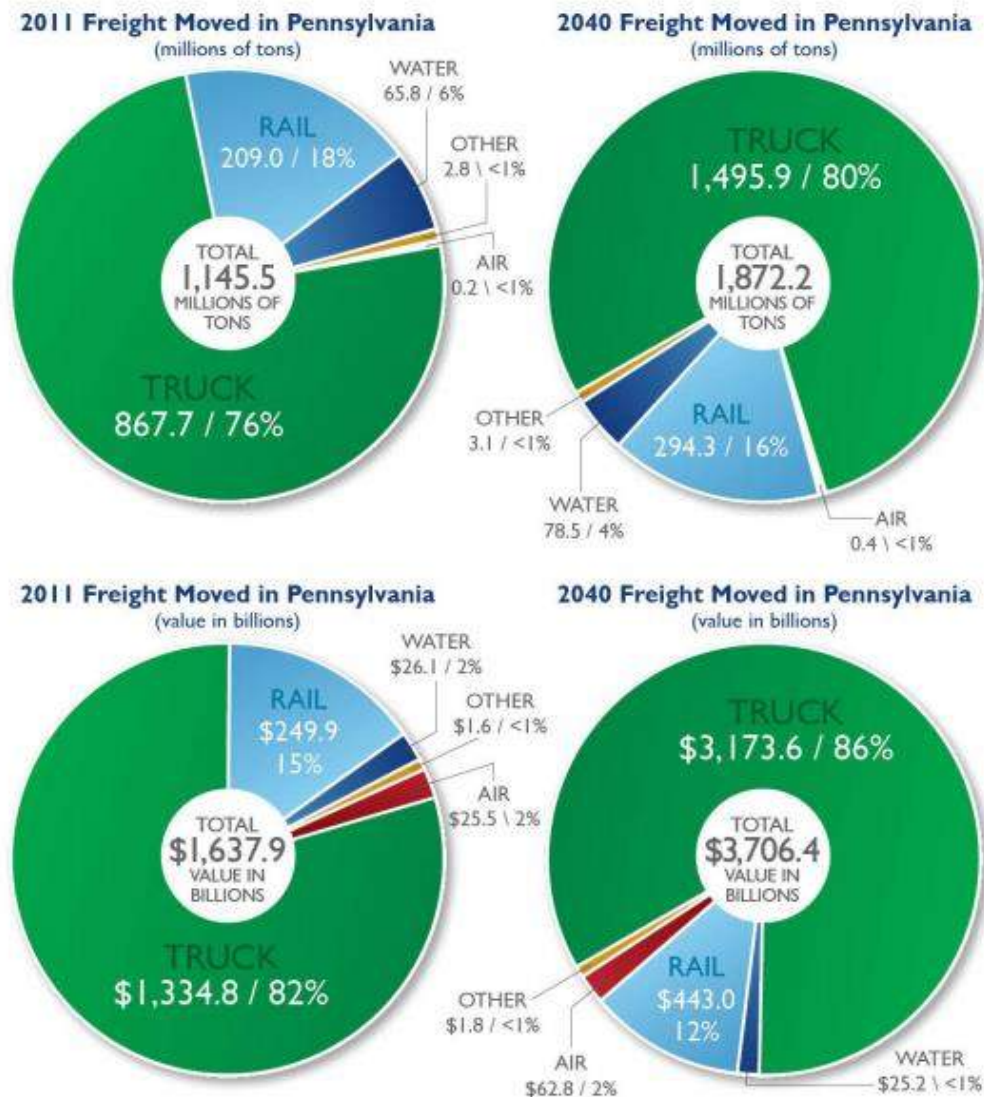
Diesel particulate emissions at the 1795 Packwood House Museum, National Register of Historic Places, located at the corner of Market and Water Streets, April 12, 2019

The feedback forms are included in **Appendix O**.

GROWTH OF FREIGHT TRANSPORTATION AND LOGISTICS LAND USES

Statewide Trends

PennDOT's *Long Range Transportation Plan* projects that by 2040 Pennsylvania's freight volume will increase to almost 2 billion tons with a value of \$3.7 trillion, up from 2011 levels of 1.2 billion tons of goods valued at over \$1.6 trillion. As illustrated in **Figure 17** below, excerpted from the *Comprehensive Freight Movement Plan*, by 2040 trucks are projected to transport 80 percent of freight. Overall, this represents a 72 percent increase in tons of freight being moved by truck between 2011 and 2040.



Source: CDM Smith analysis of 2011 PA Transearch data

Figure 17 – Charts illustrating the projected growth in freight across Pennsylvania. Graphic from Pennsylvania Comprehensive Freight Movement Plan Executive Summary

Regional Impact

The Central Susquehanna Valley, in particular, is located at a key strategic point for freight movement where Interstate 80 intersects with Route 15 and Route 147. The Interstate 80 corridor is a major freight transport route across the state and connects to the ports of New York and New Jersey. Route 15 and Route 147 provide direct high-speed access to I-80 and also northward to New York State and the Port of Buffalo. Route 15 is also a major freight route toward Harrisburg and ultimately the Baltimore and Washington metropolitan areas. Along and at the intersection of these major freight traffic corridors, the region has experienced growth in freight and logistics land uses, and there is the expectation of additional future growth. These significant freight corridors will continue to have an impact on the regional road network, including the Market Street Corridor.

A review of regional planning documents indicates that freight traffic in Central Pennsylvania will continue to grow in coming decades. **SEDA-COG's Long Range Transportation Plan, 2016-2040, Figure 36, forecasts that heavy truck traffic on Market Street through the Lewisburg Historic District will increase by 25 to 50 percent between 2007 and 2040.**

Impact of Central Susquehanna Valley Transportation (CSVST) Project

The Central Susquehanna Valley Transportation (CSVST) project, once completed in 2027-2028, will have a major impact on traffic flow and land use patterns in Central Pennsylvania. The new CSVST bridge over the West Branch of the Susquehanna River, planned for completion in 2022, will provide regional freight traffic with a direct and safe route to cross the river and continue on PA 147 or on US 15. **One of the stated goals of the CSVST project is "To separate trucks and through traffic from local traffic."**

The construction of both the northern and southern sections of the CSVST will also create development opportunities at new and existing interchanges in the surrounding area. It is likely that such increased development along the new highway system will contribute to the predicted increase in freight traffic volumes. In SEDA-COG's "Long Range Transportation Plan, 2016-2040," the assessment of the CSVST includes the following passage:

"The patterns of traffic access at the Montandon-Lewisburg interchange should also receive some attention in the years following completion of CSVST. For example, the redistribution of traffic that will result from the opening of the CSVST roadway could alter the existing main street environment along PA 45 through Lewisburg Borough." (LRTP, "Issues & Implications," p. 99)."

Such changes to Historic Market Street's "main street environment" had been occurring for some time prior to the CSVST project, due to year-over-year increase in truck traffic. Construction of both the north and south sections of the CSVST is years away, and there is no guarantee, even after the CSVST has been fully completed, that trucks will not continue to use Market Street through Downtown Lewisburg.

Efforts are needed to ensure that current and future freight traffic is immediately directed toward the existing regional and interstate freight corridor network (US 15, PA 147, US 11, I-80) and the CSVST, once completed, and is not routed or allowed to travel on Market Street through the Downtown Lewisburg Historic District.

"Our region's prosperity is in large part, contingent on the economic vitality and viability of its communities. Lewisburg is a thriving community with rich traditions. Its community leaders have managed this historic borough and its bustling downtown exceptionally well. This leadership has benefited our entire region in many ways, particularly when it comes to Lewisburg's attractiveness to both visitors and to professionals looking to locate in the Greater Susquehanna Valley due to work assignments. The Chamber with its 700+ members, representing more than 53,000 employees is chagrined at the news of a possible decline in the number of visitors, shoppers and diners in Lewisburg due to parking and pedestrian safety concerns. We find any negative economic impact caused by these concerns on small businesses and residents to be intolerable.

"Please add the Greater Susquehanna Valley Chamber of Commerce to the list of supporters of the Lewisburg Market Street Traffic Study....We believe, now that the Central Susquehanna Valley thruway project is well under construction, it's time to address the concerns of small downtown businesses and of the broader community in an attempt to balance the logistical concerns of everyone involved."

- Susan A. Greene, Chair, GSVCC Board & Joseph McGranaghan, Chair, GSVCC Transportation Committee, Greater Susquehanna Valley Chamber of Commerce

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Part 4

Conclusions and Recommendations

CONCLUSIONS

Based on the extensive data analysis and abundant, clear feedback from local leaders and community members, TPD identified five core concerns facing the community. These concerns all emerge from the incompatibility of heavy truck traffic with a highly pedestrian Downtown residential and business community comprised of well-preserved historic buildings.

Public Health and Safety

The number one concern of local leaders, first responders, the community and the TPD engineering team is the health, safety and welfare of the public. The most direct impact of heavy trucks is the potential increase in crash rate and crash severity. The increased weight of large trucks means that they stop more slowly than cars and, when they hit pedestrians they do so with increased force. The Market Street Corridor was identified in SEDA-COG's Long Range Transportation Plan as a High Crash Location. Further analysis confirmed that the study area has an elevated crash rate, especially for crashes involving pedestrians. During the five-year analysis period, 17 percent of reportable crashes included a pedestrian being struck by a vehicle.

Emergency responders also expressed concern that large freight vehicles have difficulty turning onto a side street or pulling over to create adequate space for emergency vehicles to pass safely, when responding to an accident. The fire department has had recent incidents where their response time was significantly delayed because of freight vehicles blocking access, along the Market Street Corridor. For EMS teams, this loss in response time minutes can easily translate into a loss of life.

The constant presence of heavy truck traffic in the heart of the community has produced noise levels, vibrations, and vehicle emissions that are disrupting the lives of people who live and own businesses in the Downtown Lewisburg Historic District. The everyday noise levels in the community are higher than a typical construction site, and many people expressed that they were unable to hold a conversation on the sidewalk, or enjoy outdoor amenities or events. The seismic study found that the current traffic conditions are producing vibrations that are perceptible indoors throughout the Historic District. Vibration levels are particularly high on the upper floors, where residents sleep, and on sidewalks and front porches. The combination of these factors has a major impact on quality of life, because homes and businesses in the Historic District are located immediately adjacent to the street.

Historic Preservation

The Lewisburg Historic District is an irreplaceable cultural resource. Lewisburg's Historic District, with its 856 contributing buildings (115 of these on Market Street), was included on the National Register of Historic Places (NRHP) in 2004. Through the years, Lewisburg Borough's Historical Architectural Review Board (HARB) has ensured that the District's architecture and historic character has been carefully preserved. The heavy truck traffic in the Historic District creates vibrations, deterioration, dirt, and dust – all factors that increase costly maintenance responsibilities and discourage the ongoing necessary investment in Lewisburg's historic properties. The community relies on hundreds of individual property owners to maintain these irreplaceable buildings, which bring thousands of shoppers and visitors each year into Historic Downtown Lewisburg.

Continued impacts from heavy vehicle traffic will make it difficult for properties to remain attractive both physically and from a real estate standpoint. If these historic buildings are not continually maintained and

preserved, this will deter future property owners and businesses from investing in Downtown Lewisburg.

Economic Viability

The state, along with local stakeholders and community organizations, have invested millions of dollars in preserving and enhancing the Lewisburg Historic District for cultural and economic benefits. Private investment has followed, with more than 154 small businesses operating within the Historic District, including art galleries, specialty retail, antique shops, and restaurants. Major local institutions, including Bucknell University, Geisinger Medical Center, and Evangelical Community Hospital, have supported Downtown Lewisburg and rely on a healthy downtown to attract and retain talented professionals from around the nation.

These investments, as well as the positive experience and enjoyment of visitors and residents, along with the economic viability of Lewisburg's walkable shopping district, are endangered by the truck traffic that damages historic buildings, discourages pedestrian activity, and produces noise levels so high that visitors cannot hold a conversation on the sidewalk or enjoy a meal at an outdoor table. Such impacts undermine the sustainability and vitality of Downtown Historic Lewisburg and the surrounding region. The dirt, residues, and vibrations impose additional expenses on all property owners, at the same time that many downtown businesses are experiencing a reduction in sales and foot traffic. Merchant and customer comments reveal that Lewisburg's "Experience Economy," whereby consumers expect an array of pleasant and inviting shopping and dining experiences, has been negatively impacted by truck traffic through the heart of the Downtown Historic District.

The above factors affect the long-term sustainability of Downtown Lewisburg and the ability to attract and retain vital downtown businesses that serve both the local and the regional economy and communities.

Public and Private Infrastructure

Numerous comments and photos from the Lewisburg Downtown community reveal the costly damage done to historic building facades by truck traffic on Market Street. These comments range from the need for daily exterior and interior cleanings and maintenance to more frequent painting and structural repairs that place an additional burden on property owners and businesses. The Borough's public infrastructure also suffers from direct damages, often to lampposts and globes, and from the excessive wear and tear of heavy trucks on streets maintained by the Borough with local taxpayer funding. Likewise, Market Street, a historic street established in 1785, was not designed to support the excessive weight and constant friction of today's heavy freight trucks. As a result of this persistent stress from heavy truck traffic, Market Street requires all too frequent repairs to the pavement, manholes, and curbs.

Quality of Life

The above four topics—public health and safety, historic preservation of structures and assets, and economic vitality—when combined are essential for evaluating the quality of life in a community. Residents, merchants, businesses, consumers, and visitors have provided ample testimony of a diminished quality of life in Downtown Historic Lewisburg, due to ever-increasing impacts from truck traffic along Market Street. In particular, public comments have described Market Street in Downtown Lewisburg, as "unwelcoming," "too noisy to have a conversation," "hostile to pedestrians and cyclists," and a "huge loss and forfeiture of its future." Impacts from heavy truck traffic suppress social discourse, negatively affect psychological well-being, decrease economic viability, threaten human and environmental sustainability, and, in general, diminish the quality of life that Lewisburg has worked so hard to maintain and enhance over the centuries.

Communities like Lewisburg take pride in their heritage and in their multiple and long-standing contributions to the culture, education, recreation, and commerce of the region and the State.

The safety of the public, the longevity of historic assets, the vitality of economic structures, and the quality of life of the citizens and visitors to Lewisburg's Downtown Historic and Business District all depend on solving this current heavy freight truck problem. The use of Market Street as a regional cut-through route for trucks is not compatible with Lewisburg's vision for the community.

A VISION FOR THE FUTURE OF MARKET STREET

For the future health of the community, the Lewisburg Historic District must remain a hub for community gatherings and a place where people want to live, work, and visit. Market Street needs to remain a destination, not a dangerous, noisy, and unpleasant highway. The needs of the community must be prioritized over freight traffic.

Market Street should be an inviting place where people of all ages enjoy walking and biking. The Historic District should be pedestrian-oriented and green, lined with trees and signature street lights with hanging flower baskets, and natural beauty. The street should be easy to cross on foot, especially for older and younger individuals and those with limited personal mobility. Market Street should be a place for an enjoyable walk, full of art, landscaping, flowers and trees, shops, restaurants, and social activities, carefully preserved historic buildings, and other amenities considered unique to a small historic downtown area.

Lewisburg welcomes people who drive in from surrounding communities, as well as visitors from around the world, but drivers should travel at appropriate speeds and yield to pedestrians along the nine blocks of the Market Street Corridor and throughout the Historic District. Local business owners and residents should be encouraged to continue investing in new storefronts, restoring and preserving historic buildings, and purchasing homes for their families in the center of town. Market Street should be a pleasant place to read a book, chat with friends and family, shop, or dine outside, at all hours of the day or evening.

In the long term, the new CSVT Bridge over the West Branch of the Susquehanna River, once completed will provide regional and interstate freight traffic with a rapid and safe route to cross the river. For the short term, all freight traffic should be removed from the Market Street Corridor and directed to the existing freight network corridors and river crossings (US 15, PA 147, US 11, and I-80).

RECOMMENDATIONS

TPD offers the following recommendations and recommended implementation steps for the Market Street Corridor in the Lewisburg Historic District:

1. The Borough should request technical assistance through the PennDOT Connects initiative and Local Technical Assistance Program (LTAP). PennDOT Connects offers free technical assistance to municipalities to better integrate local land use, development, and transportation goals into the state transportation planning process. This process can provide a framework for mutually beneficial collaboration with PennDOT and SEDA-COG.

Implementation: *Apply for technical assistance through the PennDOT Connects Support Hub.*

2. Prohibit all trucks Class 6 and larger on Market Street between U.S. Route 15 and PA Route 405. Heavy freight vehicles are not compatible with the heavy pedestrian volumes on Market Street within the Historic District. Exceptions should be made for local, state, and federal government vehicles, local deliveries and services, emergency vehicles, utility vehicles, school and university buses, and regional commercial bus carriers.

Implementation: *Complete and submit to PennDOT Traffic Engineering Form TE-109 and TE-114. Upon PennDOT approval, install signage in accordance with this restriction.*

3. Prohibit all trucks Class 6 and larger on Borough streets within the Historic District. The Borough streets are narrow with tight curb radii that cannot accommodate truck traffic. Heavy freight vehicles are not compatible with the high pedestrian volumes throughout the Historic District. Exceptions should be made for local, state, and federal government vehicles, local deliveries and services, emergency vehicles, utility vehicles, school and university buses, and regional commercial bus carriers.

Implementation: *Complete PennDOT Traffic Engineering Form TE-109 to retain in Borough files. Adopt applicable ordinance and install signage in accordance with this restriction.*

4. Implement traffic signal modifications that promote safe travel for all roadway users and prioritize the safety and convenience of pedestrians:
 - a. Revise the vehicle change and clearance (yellow and all-red) intervals at the four signalized intersections to increase the total vehicle change and clearance intervals from 4.5 seconds to 6.0 seconds.
 - b. Incorporate the traffic signal at the intersection of Market Street & 7th Street into the existing signal system with the three intersections to the east.
 - c. Revise the phase order at the intersection of Market Street & 7th Street so the all-pedestrian phase follows the Market Street green phase.
 - d. Reduce the cycle length at the four signalized intersections during daytime hours to 70 seconds. The existing cycle length is 70 seconds from 6:00 A.M. to 10:30 A.M. and from 7:30 P.M. to 8:00 P.M. However, from 10:30 A.M. to 7:30 P.M. the existing cycle length ranges from 80 to 90 seconds.
 - e. For the overnight hours of 9:00 p.m. to 5:00 a.m., seven days a week, adjust the phasing and timing for the four traffic signals to achieve a "green band" for vehicles traveling approximately 20 mph.

Implementation: Pursue funding through Pennsylvania's Municipal Signal Partnership Program, also known as the "Green Light-Go Program". The program provides state funds for the operation and maintenance of traffic signals along critical and designated corridors on state highways. Engage a traffic engineering firm to submit a traffic signal report/design study and revised traffic signal permit plans to PennDOT for review and approval. If the modifications to the pedestrian phasing do not achieve the Borough's goals for reduction in delay then Leading Pedestrian Interval (Alternative 7) should be explored.

5. Reduce the posted speed limits in the study area to create a low speed zone that is more forgiving of driver mistakes in an area with frequent pedestrian activity:
 - a. Reduce the posted speed limit on Market Street to 20 mph.
 - b. Consider reducing the posted speed limits on other Borough streets within the Historic District to 20 mph.

Implementation: Complete PennDOT Traffic Engineering Form TE-101 to document the request for a reduced speed limit on Market Street and submit to PennDOT for review. Upon PennDOT approval the Borough will be responsible for installing the appropriate signage. For Borough-owned streets, following the completion of an engineering and traffic investigation, an appropriate speed limit may be set by ordinance without PennDOT approval.

6. Continue to invest in streetscape improvements to improve safety and pedestrian mobility, enhance the sense of place and provide visual cues to drivers that they are entering a pedestrian-oriented Historic Downtown Business and Residential District that requires different driving behaviors:
 - a. Plant additional large caliper street trees along the Market Street Corridor and along all Borough streets, whenever possible, with the goal of fully restoring the tree canopy to enhance the streetscape, provide an aesthetic and protective barrier between pedestrians and vehicles, and calm traffic.

Implementation: Continue to work with the Shade Tree Commission for implementation. Consideration and care must be taken to ensure that signal heads and regulatory signs are not blocked.

- b. Continue to invest in streetscape enhancements and amenities such as holiday lighting, hanging flower baskets, sidewalk seating, informational kiosks, and public art.

Implementation: Coordinate with the Lewisburg Downtown Partnership Design Committee and other partner organizations. Seek appropriate public and private funding assistance.

- c. Create an enhanced gateway to the Borough Historic and Business District at the intersection of Market Street & Water Street to provide westbound motorists with a visual cue to reduce their speeds as they are entering a built-up community. The gateway may include curb extensions, signage, and landscaping enhancements. Installing curb extensions in place of the existing right-turn lane would reduce the crossing distance for pedestrians and discourage speeding.

Implementation: Seek appropriate funding for assistance and engage traffic engineering firm for analysis and design.

- d. Create an enhanced gateway at the intersection of Market Street & Route 15 to improve safety, slow speeds, and provide a signature entrance to the Downtown Historic District.

Implementation: Seek appropriate funding for assistance and engage traffic engineering firm for analysis and design.

- e. Design and install appropriate wayfinding signs on Market Street and other Borough streets to guide visitors to destinations within the Borough.

Implementation: Coordinate with the Lewisburg Downtown Partnership Design Committee and other partner institutions and organizations. Seek appropriate funding for assistance.

- f. Enhance plantings on existing bump-outs along Market Street

Implementation: Coordinate with the Lewisburg Downtown Partnership Design Committee and engage with a Landscape Architect to design and implement improvements. Seek appropriate funding for assistance. Clear sight lines should be maintained for motorists and pedestrians.

- g. Install bump-outs at the intersection of Market Street and Sixth Street and the intersection of Market Street and Fifth Street.

Implementation: Seek appropriate funding for assistance and engage traffic engineering firm for design.

- h. Conduct an engineering study to assess the potential benefits of a new midblock crosswalk between Fourth Street and Fifth Street.

Implementation: Seek appropriate funding for assistance and engage traffic engineering firm for analysis and design. Complete and submit to PennDOT Traffic Engineering Form TE-113.

- i. Enhance pedestrian connectivity in the Historic District by upgrading key crossings of the Buffalo Valley Rail Trail (BVRT). The Route 15 Trail Crossing has been recently identified by PA DCNR as one of the top 10 trail gaps in the state. The existing trail crossing on Market Street should also be enhanced with bump-outs.

Implementation: The Borough should seek appropriate funding for an enhanced BVRT crosswalk on Market Street and engage a traffic engineering firm for design. In conjunction with other regional partners, including Union County, PennDOT and SEDA-COG, the Borough should seek appropriate funding and engage a traffic engineering firm for design of an appropriate trail crossing on Route 15.

- 7. Evaluate unsignalized intersections on the Market Street corridor in the Historic District to assess potential conflicts involving vehicles entering the intersections from stop-controlled side street approaches.

Implementation: Engage a traffic engineering firm to assess the potential for conflicts and evaluate potential improvements to enhance safety for motorists and pedestrians.

- 8. Review Borough ordinances and revise as needed to address noise levels in the Historic District:

- a. Review the 2005 Borough Brake Retarder Ordinance for any needed changes.

Implementation: If necessary the Borough should refile TE-104 with PennDOT. Upon completion of these tasks the Borough should install signage in accordance with the brake retarder ordinance.

- b. Review the Borough's noise-related ordinances and identify any modifications that should be made to address vehicle-related adverse noise impacts (muffler modifications, loud music, motorcycles, etc.).

Implementation: *Revise ordinances as needed, and post appropriate signage.*

9. Work with the Buffalo Valley Regional Police Department to prioritize enforcement along the Market Street Corridor and throughout the Borough of Lewisburg.

Implementation: *Coordinate with the Buffalo Valley Regional Police Department to ensure that future enforcement efforts specifically target motorist violations that endanger pedestrians, such as speeding, running red lights, distracted driving, and failure to yield to pedestrians in crosswalks.*

10. In accordance with PennDOT Connects' Goals, Objectives and Guidance, partnerships between PennDOT, the Borough of Lewisburg, and SEDA-COG should be reinforced during the pre-planning, planning, design, scheduling, and implementation phases of all improvement projects along Market Street through the Historic District in Downtown Lewisburg – especially in regard to timing, materials, and processes of any resurfacing projects. Enhanced collaboration will help to ensure that adverse impacts related to public health and safety, economic vitality, historic structure integrity, and overall quality of life are kept to a minimum.

Implementation: *Borough to work closely with PennDOT and SEDA-COG to develop and implement mutually-agreeable projects, timelines, and processes for all PennDOT improvement projects on Market Street through the Historic District. Innovative solutions and materials should be considered to minimize impacts, to leverage resources, and to achieve safe and sustainable multi-modal transportation investments.*

The recommendations of this study are intended to protect the health, safety, and welfare of the community by reducing conflicts between transportation modes, calming traffic speeds in a dense urban environment, and protecting generations of public and private investments in the Downtown Lewisburg Historic District.