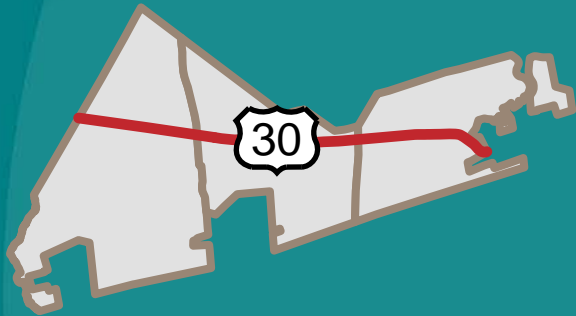


Managing Access along US 30 in Western Chester County





The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

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Executive Summary

This access management case study addresses the emerging US 30 corridor in West Sadsbury, Sadsbury, and Valley Townships, Chester County. US 30 is bypassed in all of Valley Township and much of Sadsbury Township. Where bypassed, the study is concerned with US 30 – Business.

Highway access management techniques were assembled into a conceptual plan for the corridor to improve safety and mobility, and to prolong highway serviceability in light of ongoing regional growth and development. The work was performed by DVRPC staff in support of Pennsylvania Department of Transportation's (PennDOT's) effort to promote wider planning for and application of access management procedures within the Commonwealth. The procedures are applicable to both state and local highways, and the strategies are most effectively delivered through municipal ordinances that govern the land development design, application, review, and approval process. As such, principal guidance for developing the plan work was obtained from PennDOT's publication *Access Management Model Ordinances for Pennsylvania Municipalities Handbook*.

The US 30 corridor has seen an influx of recent development, and the development trend is expected to continue. The timing is right for the corridor's municipalities to adopt access management regulations. Implementing good access management now is much simpler than correcting poor access management practice in the future.

To that end, a conceptual access management plan for the corridor was developed with municipal, county, and PennDOT staff input. The conceptual access management plan focuses on the interconnection of the new roads, essentially promoting a grid system. The conceptual access management plan is represented on **Figures 8–13** and may be used as input for, or adopted as official maps.

In addition to providing conceptual access plans, the study provides an assessment of the existing access management-related regulations and enabling devices (comprehensive plan, zoning ordinance, and subdivision and land development ordinance), and analyzes traffic safety at key intersections. All current ordinances and plans were reviewed for each municipality and where needed, recommendations to fill in regulatory gaps are presented.

A plan implementation matrix is presented in **Chapter 8**. The matrix identifies specific tasks that need to be accomplished to implement the access management plan and related recommendations that resulted from this study.

Introduction

Prevention is cheaper than the cure.
– Frederick Law Olmstead

Highway access management is one of many strategies available to prolong and/or improve the function of a state or local roadway. The methods employed in access management seek to identify corridor needs, optimize the existing transportation infrastructure, and accommodate eventual change. Access management strategies generally work toward eliminating turning movements at driveways, reducing through travel interruptions, and making vehicle entrances and exits to/from driveways and roadways more predictable.

Because access management is closely related to land development, and land use and development are municipal responsibilities, implementation can most effectively be achieved through the practices, plans, and ordinances which guide and support the municipality's land development design, application, review and approval processes (e.g., the official map, the comprehensive plan, the zoning ordinance and the subdivision and land development ordinance). In turn, formal placement and design of new intersecting streets and driveways along important state and municipal highways within its jurisdiction can be regulated by the municipality. Where state highways are involved, formalized access management plans can also be supported by PennDOT's highway occupancy permitting process. The plan's successful outcome, for both highway systems, very often hinges upon early and frequent communication, coordination and cooperation between the developer, the municipality, and PennDOT (where state highways are involved).

Access management can be a relatively low cost means of reducing congestion and increasing both the efficiency and safety of a roadway if implemented through the land development design and approval process. Access management techniques can be introduced on a case-by-case basis by retrofitting access at individual parcels along developed highway corridors or incrementally along growing corridors. The key to each is to have a defined plan of approach and the legal basis for requiring compliance.

According to the *Access Management Manual* the goals of access management are accomplished by applying the following principles:

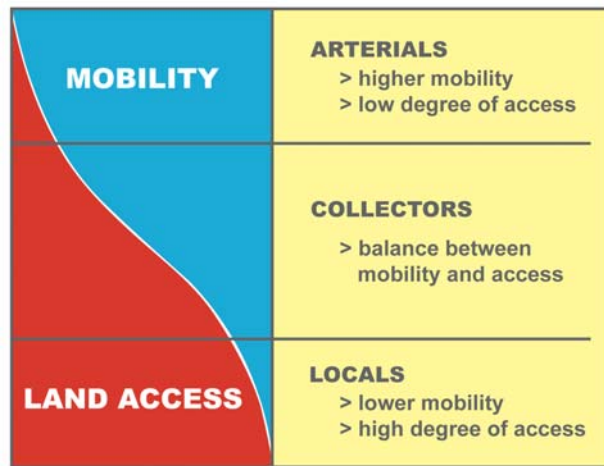
1. Provide a specialized roadway system – design and manage roadways according to the transportation function they are expected to serve.
2. Limit direct access to major roadways – limiting points of interruption favors travel mobility.
3. Promote intersection hierarchy – transitions between differing highway classes should be logical and efficient.
4. Locate traffic signals to favor through movement – long, uniform spacing between signalized intersections is more amenable to coordinated traffic control systems that provide for continuous traffic movement at desired speeds.
5. Preserve the functional areas of intersections and interchanges – areas within an intersection where deceleration and maneuvering decisions are made, as a result of the intersection’s design/control, should remain free of external, extraneous influences.
6. Limit the number of conflict points (places where the paths of vehicles intersect) – to simplify the driving experience, and reduce decision making and the chances for making mistakes that can lead to collisions.
7. Separate conflict areas – provide sufficient distance and time for decision making.
8. Remove turning vehicles from through traffic lanes – separate/protect turning vehicles with lanes that accommodate deceleration and storage to reduce stopping interruptions and conflicts along the main thoroughfare;
9. Use nontraversable medians to manage turning movements – effective for improving roadway safety.
10. Provide a supporting street and circulation system – networks of local and collector streets which accommodate development, and unify property access and circulation systems are highly desirable for dispersing traffic demand and eliminating local travel from higher order highways. Interconnected streets, sidewalks and trails also provide alternate routes for bicyclists and pedestrians.

National studies indicate that where access management techniques are consistently implemented along a highway corridor, collisions can be reduced by as much as 50 percent, capacities increased between 23 and 45 percent, and travel times and delays reduced as much as 40 to 60 percent versus highway segments with un- or under-regulated access management practices (*NCHRP Report 420*). Other studies have concluded that increasing driveway interferences (e.g., conflict points) from 10 to 20 per mile can result in a 30 to 40 percent increase in crashes along a highway (*Access Management Manual*).

Highway functional classification is a term that implies the hierarchy and interconnectivity of a highway network. Typically, freeways, expressways, and arterial highways provide for through travel and mobility over longer distances. Local travel, composed of shorter trips, is served by collector roads and local streets. More often than not, trips include both local and longer distance

elements, hence the importance of interconnectivity and continuity of the system to serve all highway trips. Functional classification is an important parameter in determining the extent to which access management strategies should be applied, besides defining a network of highways that are most important locally, regionally, and nationally. Highways designated in the system may also be eligible for federal funding assistance when transportation improvement projects are contemplated.

The relationship between mobility and land access represented by a highway's functional classification is conceptualized in the mobility curve graphic below. With the exception of limited access highways (e.g., expressways, where movements to and from the highway occur only at interchanges) and some principal arterial highways, properties abutting highways are legally entitled to access. Proper emphasis of the highway's main purpose can be achieved through recognition and definition—to carry traffic or serve abutting property—and design. Access management plans/designs supported by ordinances reinforce the desired purpose of the highway.



FHWA Mobility Curve

FHWA, 1992

A foundation for understanding the hierarchy of roads is represented by the federal aid highway classification system. Typically, functional classification maps and highway designations are also found in municipal comprehensive plans. Highway design standards, contained in PennDOT manuals and municipal ordinances, reinforce the intended function of a highway. PennDOT's *Access Management Model Ordinances for Pennsylvania Municipalities Handbook* also arranges its guidelines in relation to a highway's functional classification.

DVRPC's access management work program was created to promote and support PennDOT's Model Access Management Ordinance project with the participation of the membership and the municipalities. DVRPC's access management planning methodology draws from the region's federally mandated Congestion Management Process (CMP), which aims to minimize congestion and enhance the mobility of both people and goods along a defined network of

highways. The CMP acts as a connection between the region's Long Range Plan and the region's Transportation Improvement Program (TIP) to ensure that appropriate strategies are applied to improve regional transportation facilities. An initial step in the CMP was to define congested corridors throughout the Delaware Valley. The process then considered characteristics within each corridor and preliminarily identified strategies—including access management techniques—to mitigate congestion. Consequently, with the direct participation of the local municipality in the case study evaluation, DVRPC's access management corridor approach provides a more detailed evaluation than the CMP's general recommendation and a sounding board for its acceptance.

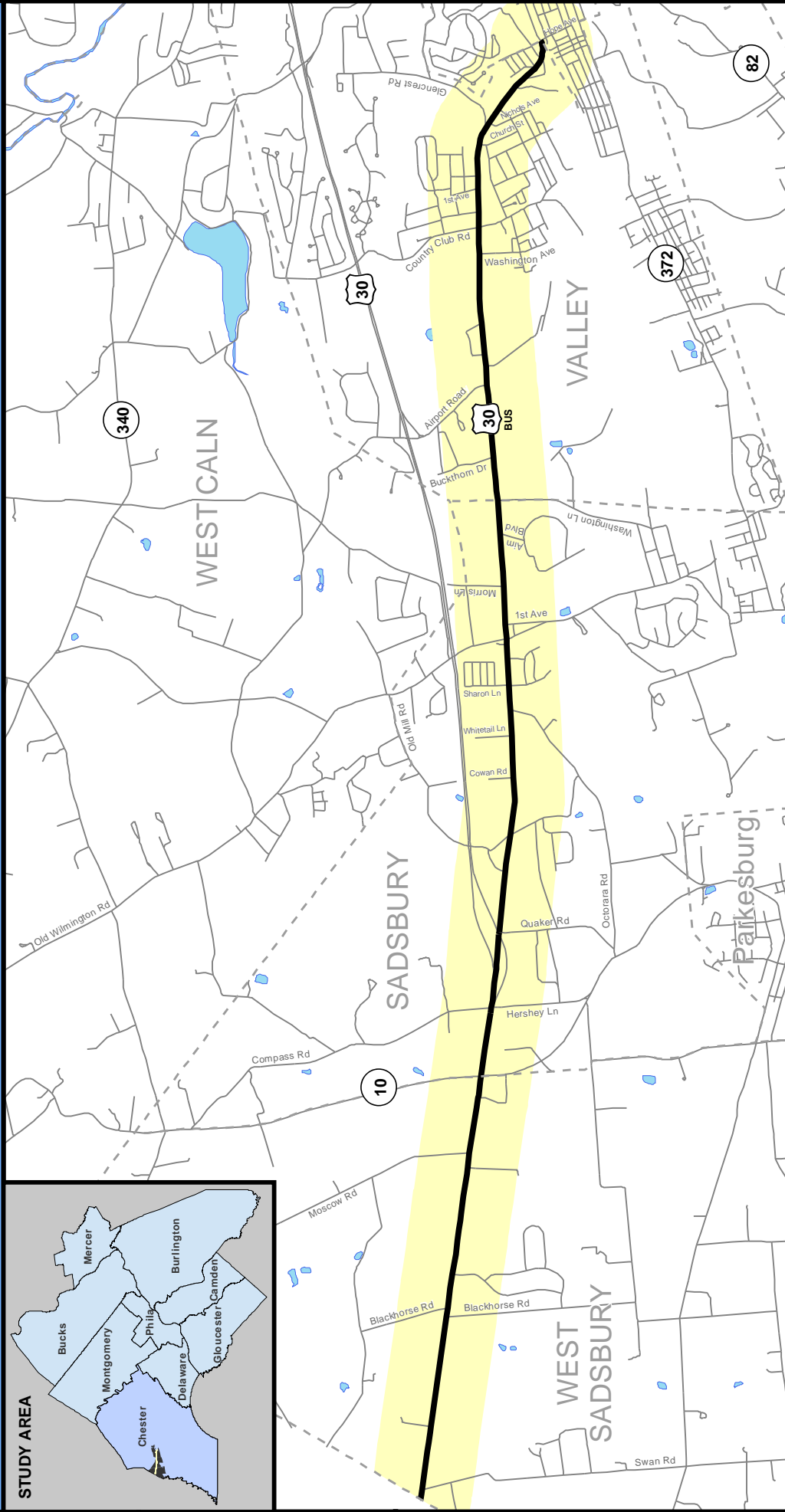
In January 2009, an Access Management Task Force meeting was held at DVRPC to select corridors for access management case studies. Representatives of each Pennsylvania county in the DVRPC region, PennDOT Engineering District 6-0, and SEPTA were on hand for the selection process. The long list of potential corridors was drawn from the region's CMP, and from task force participant suggestions. Further discussions narrowed the list to a few selected corridors. This corridor was nominated by Chester County due to its status as an emerging corridor.

Usually, the "host" steering committee member (Chester County for this study) participated in working meetings with the local municipalities. Municipal representatives that participated in the planning exercises were also given the opportunity to review and make comments on the draft report.

The corridor subject to this case study evaluation is the Lincoln Highway (US 30) in West Sadsbury, Sadsbury, and Valley Townships, Chester County. The corridor stretches approximately seven miles between Lancaster County and Coatesville City. The study corridor is shown in a regional setting on **Figure 1**.

The access management assessment conducted in this study is comprised of two facets: the geographic specific assessment, and a review of the municipal enabling ordinances. The primary goal of this study, and of the access management program as a whole, is to educate the municipal representatives to the benefits of access management and for access management to be included in future municipal transportation related decision making.

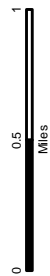
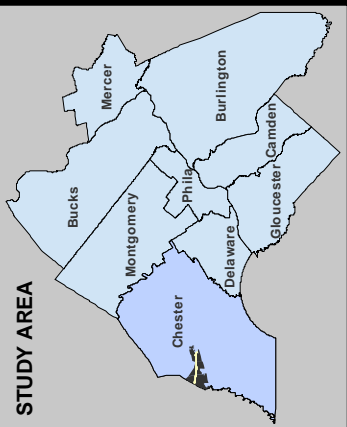
Figure 1: Study Corridor Overview



Map Features

- Municipal Boundary
- Local Road Network
- US 30 - Study Corridor

STUDY AREA



September 2010

Study Area Transportation Facilities

Study Area

This study is concerned with US 30 within the limits of West Sadsbury, Sadsbury, and Valley Townships. Through all of Valley Township and the majority of Sadsbury Township, US 30 is complemented by a bypass. The study corridor extends approximately seven miles between Lancaster County and Coatesville City. Much of the corridor is composed of rolling hills typical of the piedmont region. East to west the corridor gains approximately 350 feet in elevation as it exits the Delaware Valley Region.

Existing Conditions

The study corridor is at the outer reaches of both the Philadelphia and Lancaster metropolitan areas. The City of Lancaster is approximately 25 miles west, and Philadelphia is approximately 45 miles east of the center of the corridor. Additionally, the corridor is convenient to Great Valley employment centers. With red light free travel between the corridor and employment centers in Great Valley and Philadelphia, residential growth can be expected.

The study corridor (US 30 Business, US 30 west of the bypass) is not expected to have any major transportation improvements in the foreseeable future. This includes projects identified in the Transportation Improvement Program (FY 2009–2012), PennDOT's Twelve Year Transportation Program, and the regional Long Range Plan which identifies federally-supported projects to 2035. Transportation improvements will likely be either privately funded or locally funded. Access management can be used to improve and/or maintain existing levels of mobility.

The regional Long Range Plan identifies one project that will have an impact on the study corridor. The US 30 Bypass is slated to be reconstructed, including the completion of the partial Airport Road interchange. The completed interchange may reduce truck traffic on US 30 Business through Sadsbury Township. Chester County noted that the interchange project is expected to occur around 2030.

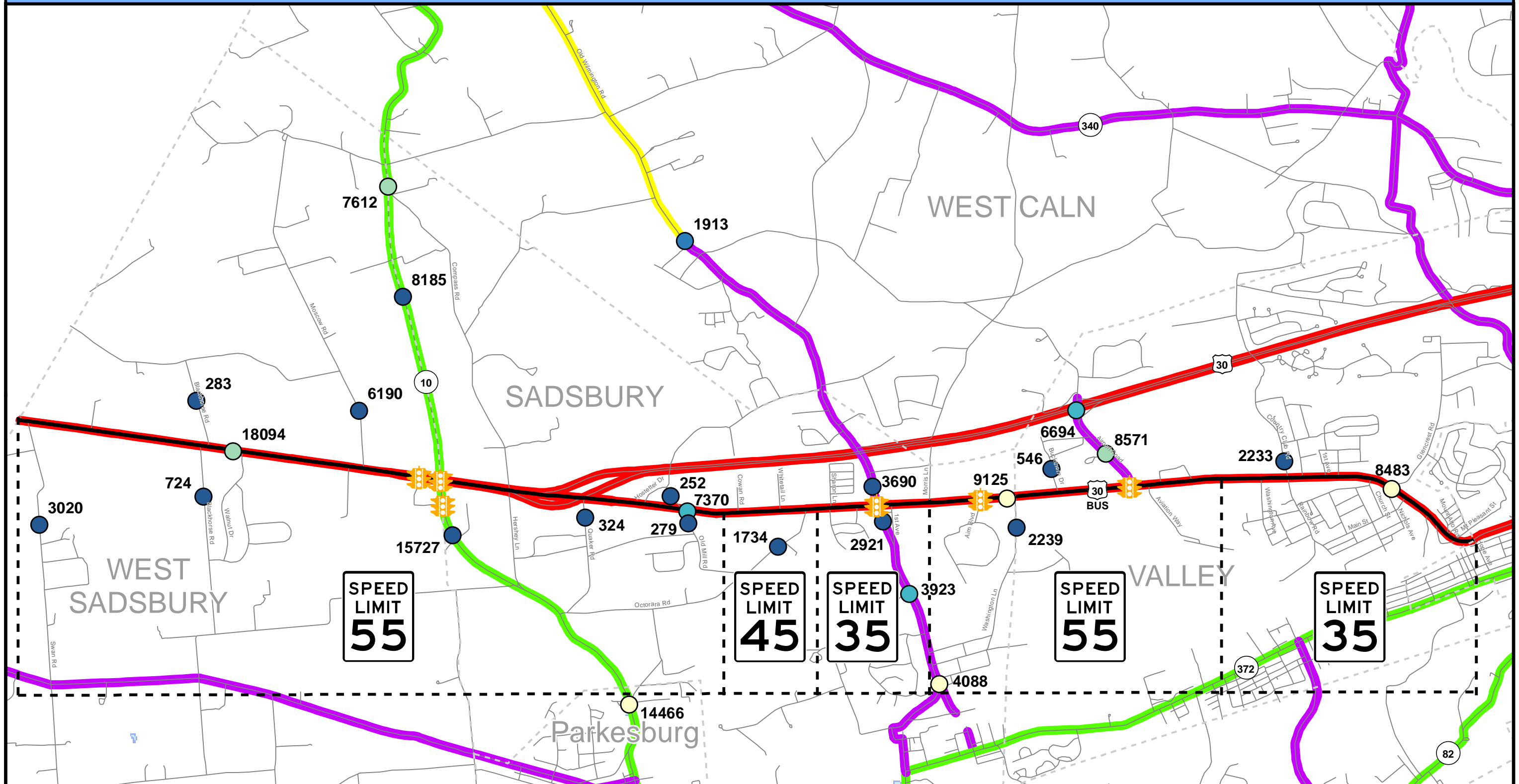
Roadway Characteristics

US 30 is functionally classified as a principal arterial highway. Approximately 8,000 vehicles per day use the bypassed portion of US 30, and nearly 20,000 vehicles per day use US 30 west of the bypass termination (see **Figure 2**). The study corridor has varying characteristics, including;

- ◆ Between Lancaster County and just east of Moscow Road, US 30 has a three lane cross section with the third lane being a center turn lane.
- ◆ West of the PA 10 intersection, US 30 becomes a four lane facility with several auxiliary turning lanes. This continues through the PA 10 intersection, though a concrete median separates the east and westbound traffic between PA 10 and through the bypass interchange. Where the concrete center median is present, several cuts to allow for left turns are present, though without left turning lanes.
- ◆ East of the US 30 bypass interchange, US 30 returns to a three lane cross section with a center turn lane. This configuration remains consistent until just east of the US 30 and Airport Road intersection. Several newer developments along this segment have auxiliary turning lanes.
- ◆ In Valley Township, a segment approximately one-quarter mile west of Washington Avenue has a three lane cross section with the third lane being a second westbound travel lane.
- ◆ Between Washington Lane and Main Street the three lane cross section with a center turn lane is present.
- ◆ Between Main Street and the eastern end of the study corridor a three lane cross section with two westbound travel lanes is present. The second westbound travel lane accommodates slow vehicles due to the steep grade.

Most of US 30 in the study corridor has speed limits posted at 55 miles per hour. A small portion of US 30 in Sadsbury Township is posted at 45 miles per hour, and sections in both Sadsbury and Valley townships have posted speed limits of 35 miles per hour. **Figure 2** displays the posted speed limits.

Figure 2: Study Corridor Road Network



0 0.4 0.8
Miles



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Federal Aid Highway Functional Classification System

- Principal Arterial Highway
- Minor Arterial
- Major Collector
- Minor Collector

Average Annual Daily Traffic (AADT) by Year

- 2009
- 2008
- 2007
- 2006
- 2005

Map Features

- Municipal Boundary
- US 30 - Study Corridor
- Local Road Network
- ⚡ Signalized Intersection

Other Important Roads in the Study Corridor

- ◆ PA 10 (SR 0010) – Octorara Trail – PA 10 intersects the unbypassed portion of US 30 at the border of West Sadsbury and Sadsbury townships. To the north, PA 10 connects with the Pennsylvania Turnpike in Morgantown (exit 298) and continues to Reading, paralleling I-176. To the south, PA 10 traverses Parkesburg Borough, connects with US 1, and terminates in Oxford Borough in southern Chester County. PA 10 is functionally classified as a minor arterial. Approximately 8,000 vehicles north of, and 16,000 vehicles south of US 30 were counted using PA 10 during a recent daily traffic count.
- ◆ US 30 Bypass (SR 0030) – The US 30 Bypass extends from western Sadsbury Township to US 202 in West Whiteland Township. It is a limited access freeway functionally classified as a principal arterial highway. Traffic counts from 2002 showed approximately 20,000 vehicles per day travelling on the US 30 Bypass near its western extent.
- ◆ Old Wilmington Road (SR 4001) – Old Wilmington Road is a state maintained road which extends from PA 372 in the south to PA 340 in the north, approximately 4.5 miles. The majority of the road is functionally classified as a major collector, though the furthest north segment is classified as a minor collector. Old Wilmington Road intersects US 30 in eastern Sadsbury Township. Recent traffic counts show approximate volumes of 3,700 vehicles north of, and 2,900 vehicles south of US 30 per day.
- ◆ Airport Road (SR 3097) – Airport Road is a state maintained major collector in western Valley Township. Only the segment between US 30 Business and US 30 Bypass is a major Collector. North of the bypass it is a local road which terminates when meeting Old Wilmington Road. Airport Road has a partial interchange with the bypass. The possible movements to/from the bypass include eastbound entry, and westbound exit.

A collection of recent traffic counts for roads intersecting US 30 in the study corridor is summarized in **Appendix A**.

Public Transit Service

Fitting with the rural and suburban character of the corridor, public transit services do not play a large role in the area. There is a single bus route operating in the study corridor, the Coatesville Link. In addition, both SEPTA's Paoli/Thorndale Line and Amtrak's Keystone Line are within reasonable distance of the corridor.

- ◆ Coatesville Link – The 'Link' is a local circulator shuttle operated by the Transportation Management Association of Chester County (TMACC), and supported by Parkesburg Borough and Coatesville City. Its primary purpose

is to connect Parkesburg and Coatesville residents with the area's major employment centers. The Link provides service six days a week between 6 a.m. and 8 p.m. with approximately one-and-a-quarter-hour frequency. The route operates on US 30 between PA 10 and the Coatesville City line in the corridor. The Sadsbury Commons shopping center and the Highlands Business Park are both served.

While fixed route transit services are minimal in the corridor, there are several transit options in the vicinity of the corridor. Krapf's Route A terminates in Coatesville and serves destinations along the US 30 corridor east of Valley Township. Amtrak has a station in Parkesburg which allows for travel to both Harrisburg and Philadelphia, and destinations beyond. Planning efforts to reopen the Coatesville Amtrak station are ongoing. Finally, SEPTA's Paoli/Thorndale Line, Thorndale station is approximately seven miles east of the center of the corridor. SEPTA's Paoli/Thorndale Line offers commuter rail service to Philadelphia, intermediate points, and service beyond.

A license plate survey conducted by DVRPC in 2005 found 23 vehicles belonging to residents of the study municipalities parked at stations along SEPTA's Paoli/Thorndale Line.

Land Use, Human, and Natural Environments

The relationship between land use and transportation facilities is central to any traffic study. The use of the land – where people live, work and play – and its intensity is responsible for trip generation and its magnitude. The geographic distribution of the uses and the transportation facilities connecting or serving these uses are responsible for how trips are made (e.g., by highway, transit, walking, etc.).

Natural and cultural resources sustain environmental functions, provide recreational opportunities, and enhance the quality of life for local residents.

Sadsbury and West Sadsbury Townships make efforts to preserve the rural character of their townships. The balance between residential land uses and agriculture is a measure of the rural character for a given geographic area.

Table 1 shows the change in these two land uses between 1970 and 2005.

Table 1: Land Use Change (1970 – 2005)

	Residential*			Agriculture*		
	1970	2005	% change	1970	2005	% change
West Sadsbury	0.6	1.0	66.7%	6.7	6.2	-7.5%
Sadsbury	0.5	0.9	80.0%	3.4	2.9	-14.7%
Valley	0.8	1.1	37.5%	1.6	1.1	-31.3%
Study Municipalities	1.9	3.0	57.9%	11.7	10.2	-12.8%

*Land area in square miles
DVRPC, 2010

Land Use

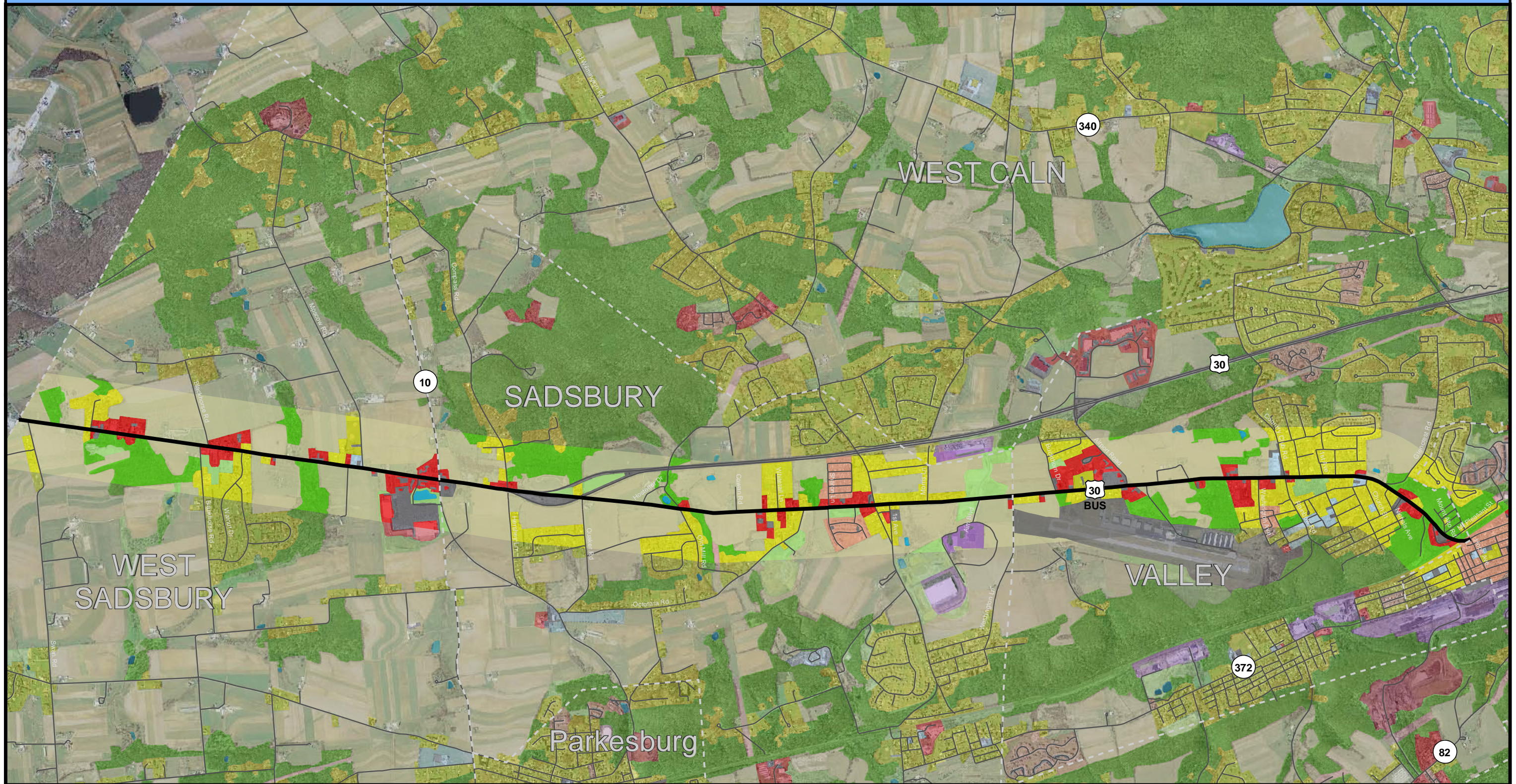
Figure 3 displays the categories and distribution of land uses in 2005 for the study corridor municipalities. **Table 2** further breaks down land use cover by type, area, and percentage of total. Though related to zoning, land use in this study’s context refers to the actual condition on the ground in 2005. DVRPC’s land use data files are updated every five years.

Table 2: Summary of Land Use (2005)

Land Use (2005)	West Sadsbury		Sadsbury		Valley	
	Township Acres	Study Corridor Percent	Township Acres	Study Corridor Percent	Township Acres	Study Corridor Percent
Agriculture	3,957	59%	1,843	47%	694	18%
Commercial	111	2%	69	2%	115	3%
Community Services	23	0%	28	1%	30	1%
Manufacturing	97	1%	32	1%	145	4%
Mining	23	0%				
Parking	45	1%	19	0%	48	1%
Recreation	8	0%	10	0%	30	1%
Residential	840	12%	764	19%	995	26%
Transportation	52	1%	42	1%	242	6%
Utility	21	0%	13	0%	25	1%
Vacant	163	2%	171	4%	266	7%
Water	21	0%	0	0%	13	0%
Wooded	1,401	21%	963	24%	1,208	32%
Total	6,761	100%	3,955	100%	3,811	100%

Study corridor is 0.25 miles north and south of US 30
 Values are rounded to the nearest whole number
 DVRPC, 2010

Figure 3: Study Area Land Use



0 0.5 1
Miles



September 2010



Land Use (2005)			
 Agriculture	 Residential: Multi-Family	 Mining	 Vacant
 Commercial	 Transportation and Parking	 Utility	 Water
 Residential: Single Family	 Manufacturing	 Recreation	 Wooded

Map Features

Local Road Network	Municipal Boundary
US 30 - Study Corridor	

Land use change has occurred in the past and will occur in the future. Considering that the question is not *if* land use will change, land use management is the best way to steer eventual change in line with municipal goals. One method of managing land use is through the protection of land – protection against development. Currently much land within the corridor’s municipalities is protected.

- ◆ West Sadsbury – 955 protected acres, 14% of the township’s total land area.
- ◆ Sadsbury – 862 protected acres, 22% of the township’s total land area.
- ◆ Valley – 256 protected acres, 7% of the township’s total land area.

Following is a list of known proposed developments, and developments completed since the most recent aerial photographs were taken in 2005. These developments are highlighted on **Figures 8–13**.

- ◆ The Mast Property – a proposed large-scale shopping center in the northwest quadrant of the US 30 and PA 10 intersection in West Sadsbury Township.
- ◆ The Hershey Property Town Center development – proposed in the southeast quadrant of the US 30 and PA 10 intersection in Sadsbury Township.
- ◆ Medical facility – Lancaster General Hospital has proposed building a 43,000 square foot medical facility abutting the Hershey Property Town Center development.
- ◆ ‘Arcadia’ Residential development – proposed south of US 30 between Octorara Road and Old Wilmington Road in Sadsbury Township.
- ◆ Sadsbury Township Building – constructed new township building along US 30, opposite Morris Lane.
- ◆ Industrial development – new industrial development along US 30 near Independence Way and Aim Boulevard in Sadsbury Township.
- ◆ Expanded airport runway – the Chester County Airport proposes to extend its existing runway west into Sadsbury Township, 400 feet in each direction.
- ◆ Residential development – a large-scale residential development has been completed in the northwest quadrant of the US 30 and Buckthorn Drive intersection.
- ◆ Realigned road – the Chester County Airport has proposed to move its entrance road to intersect with US 30 opposite Airport Road.
- ◆ Valley Township Building – a proposed new township building northeast of the US 30 and Airport Way intersection.

- ◆ New school – a proposed new school adjacent to the proposed Valley Township Building.

In an effort to ensure the transportation network in Sadsbury Township keeps pace with development, the township recently implemented an Act 209 Impact Fee ordinance. Future development in the township must contribute to defined transportation improvement projects.

Population and employment growth in the study municipalities has shaped the existing land use patterns. Continued population and employment growth will shape the future land use patterns. **Table 3** contains past, present, and future demographics. Each of the three municipalities' rates of growth is expected to outpace that of Chester County.

Table 3: Population and Employment (1970, 2005 and 2035)

	1970	2005	2035	2005 – 2035	
				Change	% Change
Chester County					
Population	277,746	473,880	622,498	148,618	31%
Employment	n/a	253,628	337,093	83,465	33%
West Sadsbury Township					
Population	1,189	2,499	3,360	861	34%
Employment	n/a	950	2,094	1,144	120%
Sadsbury Township					
Population	2,103	3,236	4,743	1,507	47%
Employment	n/a	492	1,474	982	200%
Valley Township					
Population	3,791	6,042	8,917	2,875	48%
Employment	n/a	1,966	3,797	1,831	93%
Study Municipalities					
Population	7,083	11,777	17,020	5,243	45%
Employment	n/a	3,408	7,365	3,957	116%

DVRPC, 2010

Human and Natural Environments

To the degree that federal funding might be involved in any aspect of developing or implementing recommendations from this study, it deserves mention that some advance inventorying work was performed in identifying human and natural environments in the study area. As projects are developed, the information may be helpful in engaging selected, targeted residents; helping identify avoidance steps; and/or preparing for the eventuality of compliance with the requirements of federal mandates.

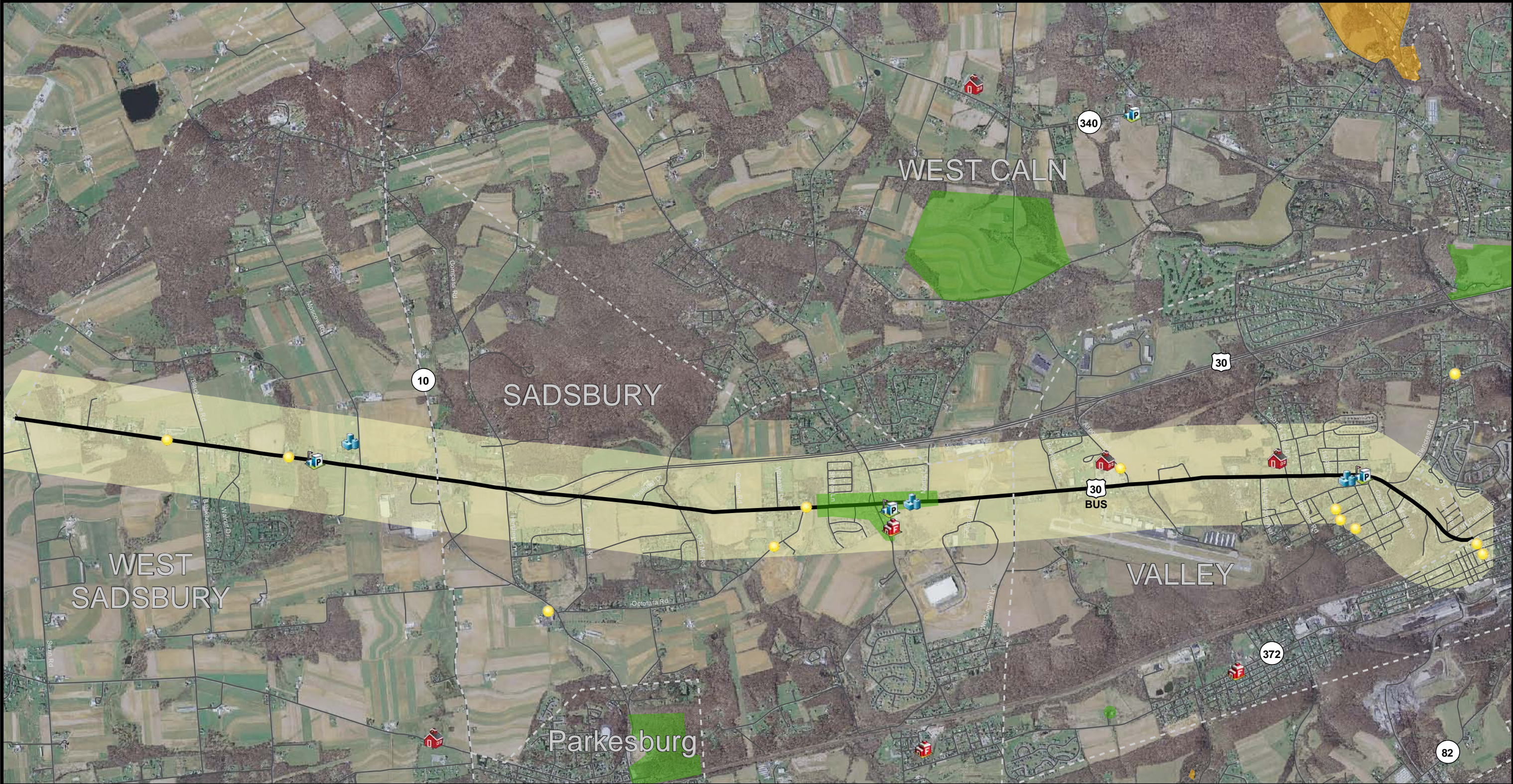
Federal law states that no person or group shall be excluded from participation in, or denied the benefits of any program or activity utilizing federal funds. Each federal agency is required to identify any disproportionately high and adverse health or environmental effects of its programs on minority and low income populations. In turn, Metropolitan Planning Organizations (MPO), as part of the United States Department of Transportation's certification requirements, are charged with evaluating their plans and programs for environmental justice sensitivity, including expanding their outreach efforts to low income, minority or other disadvantaged population groups.

As the MPO for the Philadelphia metropolitan region, DVRPC's "Degrees of Disadvantage" process was applied to the study municipalities using data from the 2000 Census. The finding of the process indicated that Valley Township houses elderly and African American populations in excess of the regional average (seven and 24 percent respectively). Valley Township is comprised of a single census tract. Planning efforts that may result in projects requiring federal funding should reach out to these populations. Reaching out to these populations might involve advertising planning open houses and charrettes at nursing homes, churches, and with community groups that represent the disadvantaged populations.

Cultural landmarks and historic resources in the study corridor include schools, parks, historic sites, municipal service buildings, and places of worship. Those identified within the study corridor are shown on **Figure 4**. Special consideration may need to be given to transportation and land use projects that impact these locations.

Natural features in the study corridor are illustrated on **Figure 5** and include floodplains, protected lands and wetlands.

Figure 4: Cultural and Historic Features



0 0.5 1
Miles





September 2010



Cultural Features

-  Place of Worship
-  School
-  Municipal Building
-  Fire Department
-  Police Department

Historic Districts

-  Listed on the National Register of Historic Places
-  Eligible for Listing on the National Register of Historic Places

Map Features




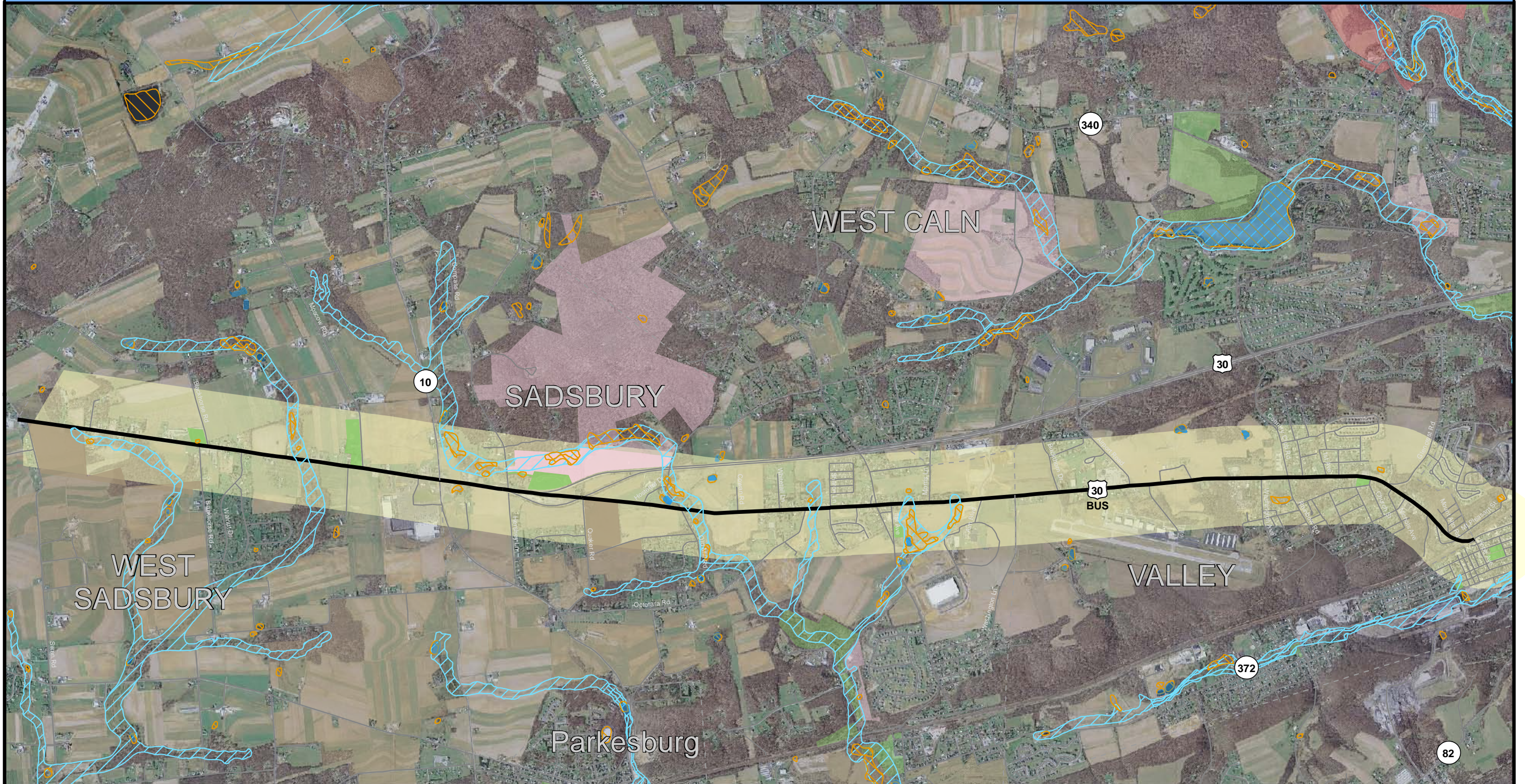
-  Municipal Boundary
-  Local Road Network
-  US 30 - Study Corridor

Figure 5: Environmental Features



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Miles



September 2010



Protected Lands

- State
- County
- Municipal
- Preserved Farmland
- Land Trust

Hydrographic Features

- Water Features (Normal Conditions)
- USFWS Wetlands
- FEMA Floodplains

Map Features

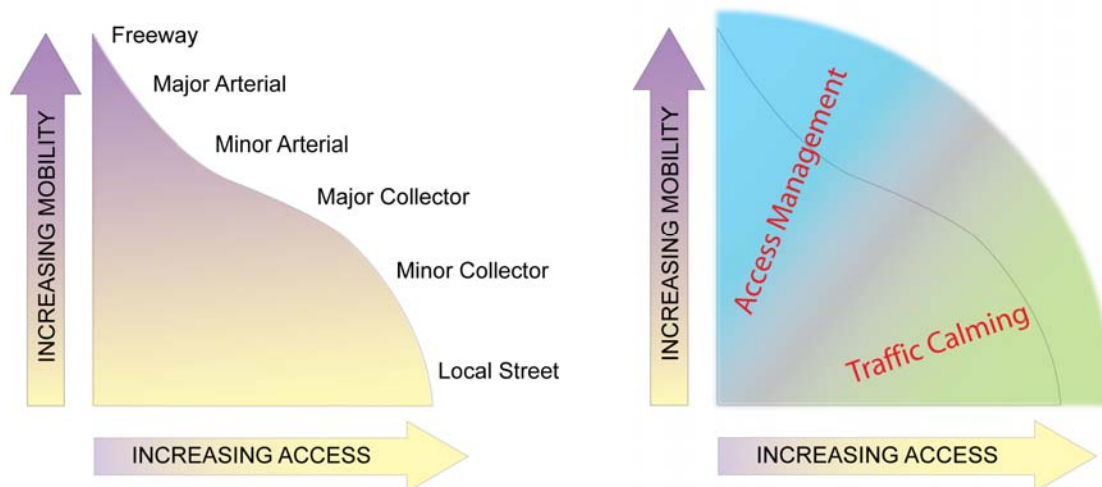
- Municipal Boundary
- Local Road Network
- US 30 - Study Corridor

Access Management: Principles, Practices and Observations

Access Management: Principles and Practices

Access management is the lesser known and understood big brother of traffic calming. They are related due to their application to roadways – traffic calming to lower order roadways; access management to higher order roadways. However there is one big difference: **if UZjWUa]b[** is often **fYUWj Y**, but **UWVgg a UbU[Ya Ybh** works best when **dfcUWj Y**.

Roadways are commonly classified according to their respective function. In Pennsylvania, PennDOT classifies roadways in accordance with the American Association of State Highway Transportation Officials (AASHTO) *A Policy on the Geometric Design of Highways and Streets (Green Book)*. These classifications range from principal arterial to local road. US 30 is classified as a principal arterial. Many counties and municipalities often build on this functional classification system with a classification system of their own, usually contained in the comprehensive plan. Limited access freeways would be classified above principal arterials, and they assist in the understanding of access management. A limited access freeway has severely restricted access, the only access allowed is at interchanges. No driveways are found on these facilities. This roadway design is used to provide the greatest levels of mobility possible. Conversely, local roads may have many driveways. Mobility on local roads is of secondary importance to providing access to abutting commercial and residential properties. In fact, if mobility on local roads is too high, traffic calming measures may be requested/employed to decrease mobility. Access management works the other way. If access is hampering mobility, highway access management techniques may be appropriate. It is also appropriate to preserve mobility before undue access creates an actual problem. The graphic on the next page provides a visual representation of the access/mobility relationship.



Mobility Curve

Source: DVRPC, 2008

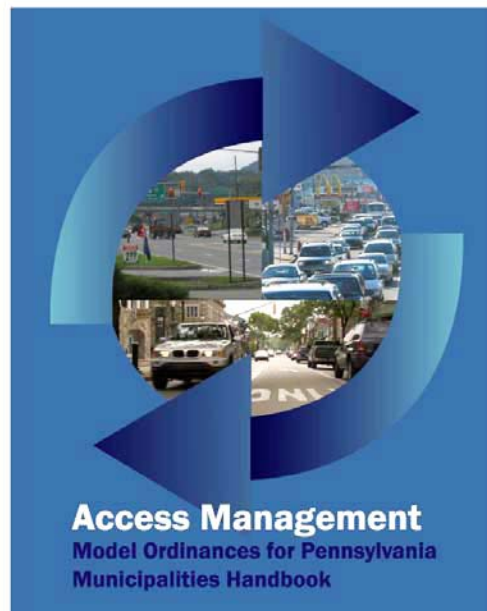
The graphic shows the role that access and mobility play in relation to the various functions of roadways. Access management and traffic calming become appropriate when roadways begin to stray from their intended function, a skewing of the curve. When skewing occurs, the purple portions of the curve may require access management and the yellow portions may require traffic calming. Again, both access management and traffic calming may be used to prevent the curve from becoming skewed in the first place.

The *Smart Transportation Guidebook: Planning and Designing Highways and Streets that Support Sustainable and Livable Communities* was published in March 2008. The document was a collaborative effort between the Pennsylvania and New Jersey DOTs, and its concepts have since been adopted by PennDOT. According to the guidelines in the *Smart Transportation Guidebook*, US 30 is considered a regional arterial, with the exception of in Sadsburyville where it is a community arterial. By distinguishing classifications beyond *principal arterial highway*, roadway treatments more in line with the surrounding land use context may be utilized.

Safety is also compromised by a skewed mobility curve. Access points create turbulence on the roadway. When poor access management is in place, too many conflict points (turbulences) are present and are disorderly in nature, resulting in less predictable driver behavior and ultimately increased crashes.

With safety and mobility in mind, the *Access Management Manual* notes that “The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.” Access management is not about putting undue requirements on developers and businesses, rather it is concerned with preserving mobility and improving safety on regional roads.

Access management in Pennsylvania has historically been the responsibility of PennDOT. However a court case in 1997 established legal precedence for municipal-level access management ordinances. The case, *Ice v. Cross Roads Borough* (York County) found that property developers are required to satisfy the access requirements of both the local municipality and PennDOT, even if the local municipality's requirements are more thorough than those of PennDOT. PennDOT fully supports municipal access management regulations. *Pennsylvania Code, Title 67, Chapter 441* defines the access management regulations employed by PennDOT. The regulations were developed as a generic set of regulations that may be applied to the Commonwealth as a whole, and by no means reflect the context of any particular municipality. Enacting local access management ordinances is a means to tailor regulations to be more fitting to the unique situations of a municipality, and to provide access management planning coverage to non-state owned roads. *Chapter 441* explicitly states that municipalities may enact ordinances that are more stringent than the Pennsylvania Code regulations. Essentially, the access management regulations identified in *Chapter 441* act as a default, but municipalities are free to enact their own if they are more thorough.



The PennDOT Access Management Handbook was developed to assist municipalities adopt access management ordinances and was a key resource for this study.

Just as there are numerous traffic calming techniques, there are various methods used to accomplish access management. Municipal ordinances only establish the legal basis for employing the methods. *PennDOT Planning Services and Implementation, Work Order 7, Task 4* provides a comprehensive list of access management techniques categorized by purpose:

- ◆ Highway access management techniques to limit conflict points:
 - Installing a median barrier with no left turns at the median openings.
 - Installing raised median dividers with a left turn deceleration lane.
 - Installing one way operations.
 - Installing traffic signals at high volume driveways.
 - Channelizing median openings to restrict left turn ingress or left turn egress.
 - Median closure to eliminate left turn ingress and egress.
 - Installing a division island to control entry into a left turn bay.
 - Installing a physical barrier to prevent uncontrolled access along property frontage.
 - Installing median channelization to control merger or left turn egress vehicles.
 - Offsetting opposing driveways, maintaining spacing requirements.

- ◆ Highway access management techniques to separate basic conflict areas:
 - Regulate the minimum spacing of driveways.
 - Regulate the distance between a crossroad intersection and the nearest driveway.
 - Regulate the minimum property clearance.
 - Regulate the maximum number of driveways per property frontage.
 - Consolidate access for adjacent properties.
 - Buying properties that abut highway improvements.
 - Denying access to small frontages.
 - Consolidating existing access.
 - Designating the number of driveways to each existing property and denying additional driveways regardless of future subdivision of that property.
 - Requiring access on a collector street in lieu of driveways on a major highway.

- ◆ Highway access management techniques to limit deceleration requirements:
 - Restricting parking on the roadway next to driveways to increase driveway turning speeds.
 - Installing visual cues of driveways.
 - Improving sight distance.
 - Regulating minimum sight distance.
 - Optimizing driveway location in the permit authorization stage.
 - Increasing the effective approach width of the driveway.
 - Improving the profile of the driveway.
 - Installing a right turn acceleration lane.

- ◆ Highway access management techniques to remove turning vehicles from through lanes:
 - Installing continuous two way left turn lanes.
 - Installing alternating left turn lanes.
 - Installing an isolated median and deceleration lane to shadow and store left turn vehicles.
 - Installing left turn deceleration lanes to remove turning vehicles from the through lane.
 - Installing medial storage for left turn egress vehicles.
 - Increasing the storage capacity of existing left turn deceleration lanes.
 - Constructing a local service road.
 - Constructing a bypass road.

Observations: the Good, the Bad, and the Ugly

Providing local examples of actual practices in highway access management is helpful in illustrating the benefits of access management.



DVRPC, 2009

The Good

The US 30 Center Lane – The majority of the study corridor has a center left turning lane. The lane allows for left turning vehicles to be removed from the through travel lanes; improving safety and enhancing mobility.

New Developments – The new residential and commercial developments have much better access considerations compared to their older counterparts. Developments such as Sadsbury Commons and the Airport Shopping Center have left and right turning lanes, and serve multiple businesses via few access locations.



DVRPC, 2009

The Bad

Offset Intersections – Swan Road/County Line Road and North and South Blackhorse Road have offset intersections where they cross US 30. Offset intersections create unpredictable turning movements and decrease safety.

Oblique Angle Intersections – Several intersections in the study corridor intersect US 30 at less than ideal angles, most notably being the US 30 and Glencrest Road intersection. Oblique angle intersections may cause sight distance concerns and cause turning vehicles to slow more than might be predictable.



DVRPC, 2009

The Ugly

Left turns to and from Compass Road – Compass Road intersects the four lane, 55 mile per hour, concrete center median portion of US 30. There are no turning lanes to remove turning vehicles from the travel lanes.

Access management, if implemented can have a profound positive effect on the safety and mobility of roadways. Correcting existing access management deficiencies is a slow process that takes place during change of use and redevelopment, yet benefits may still be realized.

Beyond efficiently managing access, providing complete streets and the ability for travel via multiple modes will assist in improving the quality of life for residents and reducing vehicular traffic. Whether utilitarian or recreational, each pedestrian and each bicyclist equals a vehicle that is not on the road. Efforts should focus in Sadsbury Township on connecting Sadsburyville to the commercial developments in the US 30/PA 10 intersection area with a multi-use trail or sidewalks and bike lanes. Efforts in Valley Township should focus on connecting Coatesville with Sadsburyville. To this end several promising developments have occurred:

- ◆ Recent developments, such as the Cowan Estates have constructed sidewalks along US 30 Business.
- ◆ Sadsbury Township has received a grant for the Sadsburyville Village Enhancement Plan and will construct sidewalks along the north side of US 30 Business. Other aspects of the plan include gateways, trees, and traffic calming measures.
- ◆ The proposed development of Sadsbury Commons on the Hershey Tract includes pedestrian connections to nearby residential areas.
- ◆ Valley Township noted that the new school and municipal building along US 30 Business will include pedestrian facilities.
- ◆ The proposed Arcadia development in Sadsbury Township will include sidewalks, and a planted center median in several locations along US 30 Business.

Traffic Safety and Recommendations

Crash Analysis

Crash data for US 30 was evaluated for the years 2006 through 2008. PennDOT's database of reportable crashes (bodily injury and/or tow away) occurring on state highways is confidential and was used in a general fashion to assess relative traffic safety conditions along the corridor. Organizing traffic crashes by location and type is a logical way of assessing traffic safety at a particular location or throughout a corridor. In turn, numbers of crashes, patterns of crashes, and related causation factors can be determined. General countermeasures can be identified where concerns exist.

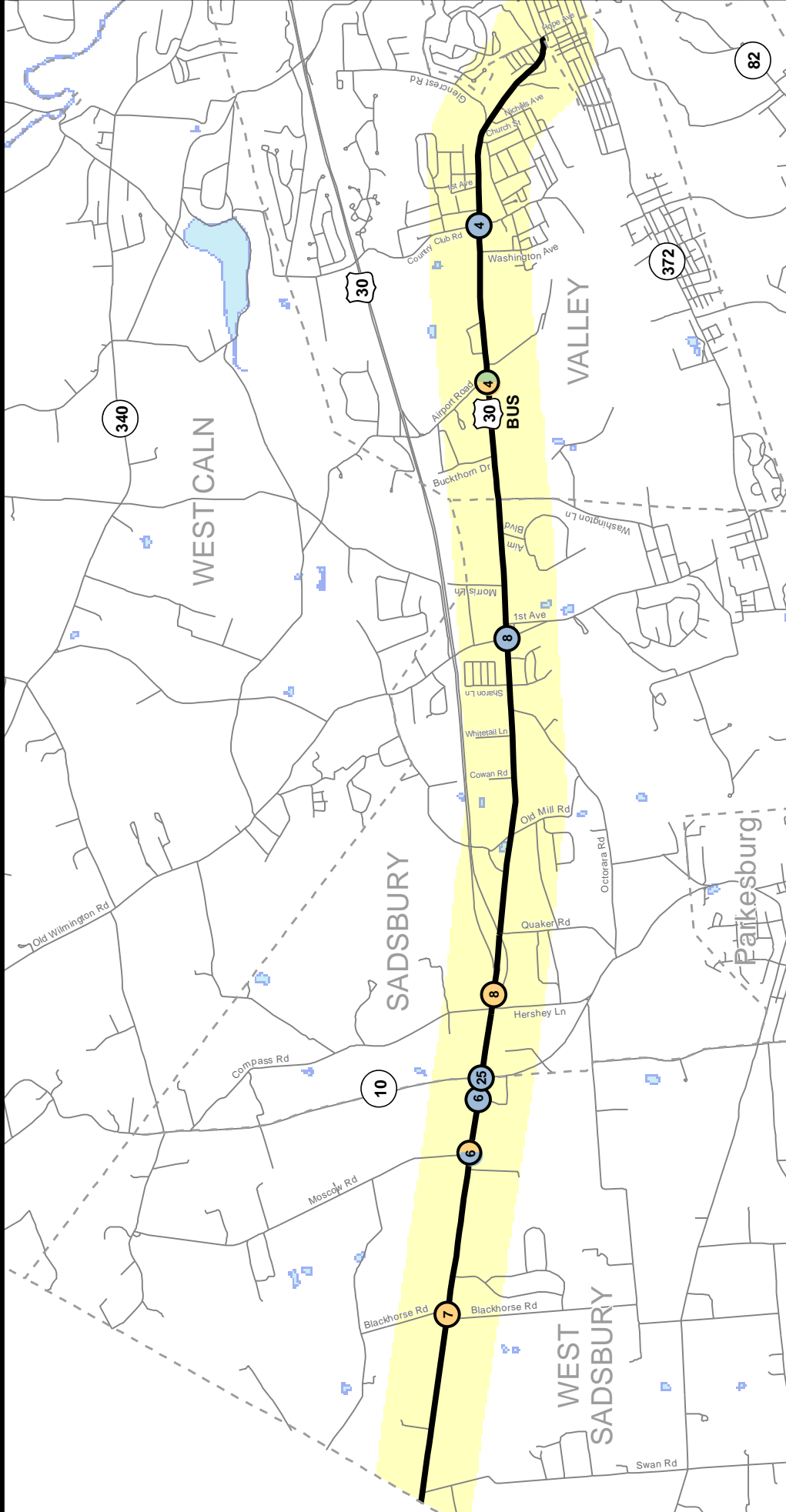
Figure 6 displays the spatial distribution of crashes across the study corridor. The study advisory committee decided that four crashes at any one particular location over the three year period warrant an analysis. Eight intersections met the four crash threshold. Potential access management-related improvement strategies are listed as appropriate. These improvement strategies are ideas that should be further studied prior to implementation.



US 30 and Blackhorse Road

Seven crashes over the three year period occurred at this intersection. The predominant crash type was rear end. The Blackhorse Road intersection with US 30 is offset – South Blackhorse Road is approximately 200 feet west of North Blackhorse Road at its US 30 intersection. Ideally the intersection would be reconfigured to remove the offset. North of US 30, vacant land exists, though a retention pond would likely impact the realignment. The speed limit along US 30 is 55 miles per hour.

Figure 6: Crashes



0 0.5 1 Miles

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Predominant Crash Type

- Right Angle
- Rear End
- Side Swipe

○ Total # of Crashes (3 yrs. 2006-2008, Minimum 4 Crashes)

Map Features

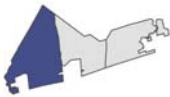
- Municipal Boundary
- Local Road Network
- US 30 - Study Corridor

Observations:

- ◆ There are driveways on Blackhorse Road near the intersection both north and south.
- ◆ Both north and south Blackhorse Road intersect US 30 at oblique angles requiring left turning vehicles to slow more than they would if the intersection were right angled.
- ◆ Due to the offset, dedicated left turn lanes are not possible because they would overlap.
- ◆ Westbound traffic crests a hill approximately 500 feet prior the intersection.
- ◆ The township noted that vehicles in the vicinity of this intersection use the center turning lane to pass slower moving vehicles.

Potential Improvement Strategies:

- ◆ Realign North Blackhorse Road to intersect US 30 opposing South Blackhorse Road.
- ◆ Conduct a speed study for the segment between the bypass ramps and Lancaster County.
- ◆ Close or consolidate driveways on both facilities in the vicinity of the intersection.
- ◆ Post an 'Intersection 500 feet' sign for westbound traffic east of the intersection. (MUTCD signs: W2-7R, W16-2P)
- ◆ Construct center median islands in select locations in the vicinity of this intersection to prevent the center lane from being used as a passing lane.



US 30 and Moscow Road

Six crashes occurred at this intersection over the three year period. The predominant crash type was split between rear end and right angle. Moscow Road intersects US 30 with a 'T' intersection. Moscow Road does not exist south of US 30. The speed limit along US 30 is 55 miles per hour.

Observations:

- ◆ Westbound traffic crests a hill several hundred feet east of the intersection.
- ◆ A center turning lane is present, as well as an oversized shoulder on the westbound side.
- ◆ There are several driveways on to US 30 in the direct vicinity of the intersection.

Potential Improvement Strategies:

- ◆ Conduct a speed study for the segment between the bypass ramps and Lancaster County.
- ◆ Post an 'Intersection 500 feet' sign for westbound traffic east of the intersection. (MUTCD signs: W2-2, W16-2P)
- ◆ Close or consolidate driveways on both facilities in the vicinity of the intersection.



US 30 and Commons Drive

This signalized intersection provides access to the large Sadsbury Commons Shopping Center south of US 30 and the Wawa north of US 30. All approaches have left turn lanes except for the Wawa exit. There were six crashes over the three year period with the predominant type being right angle. The speed limit along US 30 is 55 miles per hour.

Observations:

- ◆ There is a left turn signal phase for westbound US 30 traffic, but not one for eastbound US 30 traffic.

Potential Improvement Strategies:

- ◆ Disallow right turns on red [revise signal heads when the Mast Property is developed to phase out the conflict]
- ◆ When the Mast Property is developed, have the Wawa entrance improved.
- ◆ Conduct a speed study for the segment between the bypass ramps and Lancaster County.



US 30 and PA 10

This signalized intersection had the greatest number of crashes, 25, during the three year period. Right angle is the predominant crash type. US 30 has four travel lanes through the intersection, left turn lanes for both directions, and a right turn lane for eastbound traffic. PA 10 has two travel lanes through the intersection, left turn lanes for both directions, and a right turn lane for northbound traffic. The speed limit along US 30 is 55 miles per hour, and along PA 10 it is 40 miles per hour for northbound traffic, and 45 miles per hour for southbound traffic.

Observations:

- ◆ There are several driveways in the vicinity of the intersection.

- ◆ West Sadsbury Township noted that horse and buggies occasionally travel through the intersection.
- ◆ There is a left turn signal phase for all approaches.
- ◆ Southbound queuing at the PA 10/Commons Drive intersection can back into the US 30/PA 10 intersection.
- ◆ The left turn lane to serve westbound US 30 to southbound PA 10 traffic has been noted as having insufficient capacity.
- ◆ The business in the northeast corner of the intersection has a driveway on each road, both in the functional area of the intersection.

Potential Improvement Strategies:

- ◆ Conduct a speed study for all intersection approaches.
- ◆ Ensure sufficient green and yellow signal time exists for the turning movements and US 30 through traffic.
- ◆ Disallow left turns except during protected signal phase.
- ◆ Reconfigure driveway access for the commercial property in the northeast corner of the intersection.
- ◆ Close the Wawa driveway nearest the intersection on PA 10.
- ◆ Ensure significant green signal time for PA 10 traffic through the PA 10/Commons Drive intersection.
- ◆ Add capacity to the westbound US 30 left turn lane.
- ◆ Create an inter-municipal PA 10 planning committee to coordinate land use and transportation planning along the shared highway.



High traffic volumes, high speeds, and many possible movements contribute to the US 30 and PA 10 intersection being the most crash prone in the corridor. DVRPC, 2009



US 30 Business, US 30 Bypass and Compass Road

This location is the western US 30 Bypass termination. Westbound bypass traffic merges with the US 30 Business traffic, and eastbound US 30 traffic splits between the two routings. Complicating this location is the 'T' intersection of Compass Road meeting US 30. Compass Road is aligned north of US 30. There were eight crashes over the analysis period with the predominant type being rear end. The speed limit along US 30 is 55 miles per hour.

Observations:

- ◆ There is a median opening for left turn access to and from Compass Road, though there are no turning lanes present.
- ◆ Sadsbury Township noted this as being an area of concern.

Potential Improvement Strategies:

This area was discussed on several occasions throughout the course of the study. Numerous improvement strategies were proposed. Although the improvement strategies listed here represent those, many are not compatible with one another and should be considered as independent options.

- ◆ Conduct a speed study for US 30 and US 30 Bypass ramps.
- ◆ Reconfigure eastbound US 30 to have the right lane bypass only and the left lane to serve bypass and US 30 Business. Close the Compass Road median access.
- ◆ Reconfigure eastbound US 30 to have the right lane bypass only, the left lane US 30 Business only, and install a left turn lane to serve Compass Road traffic.
- ◆ Reconfigure westbound US 30 Business to a single lane through the bypass interchange, providing a dedicated travel lane for both the exiting bypass traffic and US 30 Business traffic. Prohibit right turns onto Compass Road for US 30 Business traffic.
- ◆ Close the Compass Road median opening on US 30 to make the Compass Road intersection with US 30 right in, right out only. Other traffic may access compass road via the Compass Road/PA 10 intersection.
- ◆ Add a right turn, deceleration lane on westbound US 30.
- ◆ Reconfigure Compass Road to be one way, southbound only.
- ◆ Construct a connector road between Compass Road and PA 10, close the Compass Road/US 30 intersection.
- ◆ Conduct a sign audit to ensure that all required and appropriate signs are in place.



US 30 and Old Wilmington Road

This intersection is in the heart of Sadsburyville. It is signalized with left turn lanes for both directions along US 30. There are two through lanes for both US 30 and Old Wilmington Road. Over the three year analysis period, there were eight crashes at this intersection with the predominant being right angle. The speed limit along US 30 is 35 miles per hour.

Observations:

- ◆ There are no driveways in the direct vicinity of the intersection.

Potential Improvement Strategies:

- ◆ Add a protected only or protected/permitted left turn signal phase for US 30 traffic.
- ◆ Consider Smart Transportation methods to calm traffic through the village, i.e., narrow travel lanes, gateway treatments, etc.



US 30 and Airport Road

This intersection provides access to the US 30 Bypass via Airport Road. It is configured as a 'T' with Airport Road north of US 30, however there is a private business driveway opposite Airport Road. US 30 has two through lanes, left turn lanes for both directions, and a right turn lane for westbound traffic. Airport Road has two travel lanes and a left turn lane. The Chester County Airport plans to realign its access road opposite Airport Road. There were four crashes during the analysis period, split between rear end and sideswipe. The speed limit along US 30 is 55 miles per hour.

Observations:

- ◆ Though signalized and with left turn lanes, there is not a left turn signal phase.
- ◆ With regards to the principles of access management, the intersection is well designed.
- ◆ A new grocery store may increase turning traffic into and out of the Airport Shopping Center.

Potential Improvement Strategies:

- ◆ Conduct a speed study for all intersection approaches.
- ◆ Reconstruct the intersection and update the signal when the airport access is realigned to intersect opposed Airport Road.



US 30 and Country Club Road

Valley Township noted that this intersection was recently improved. A crash analysis should be conducted when three years of post-improvement data is available to determine if additional countermeasures are needed. There were four crashes during the analysis period, with the predominant type being right angle.

Access management improves safety by creating a more predictable driving environment and removing turning vehicles from through lanes. Every intersection listed in this chapter would benefit from better access management practice.

The crash data used in this report was provided by Pennsylvania Department of Transportation for DVRPC's traffic safety related transportation planning and programming purposes only. The raw data remains the property of PennDOT and its release to third parties is expressly prohibited without the written consent of the Department.

Conceptual Plans

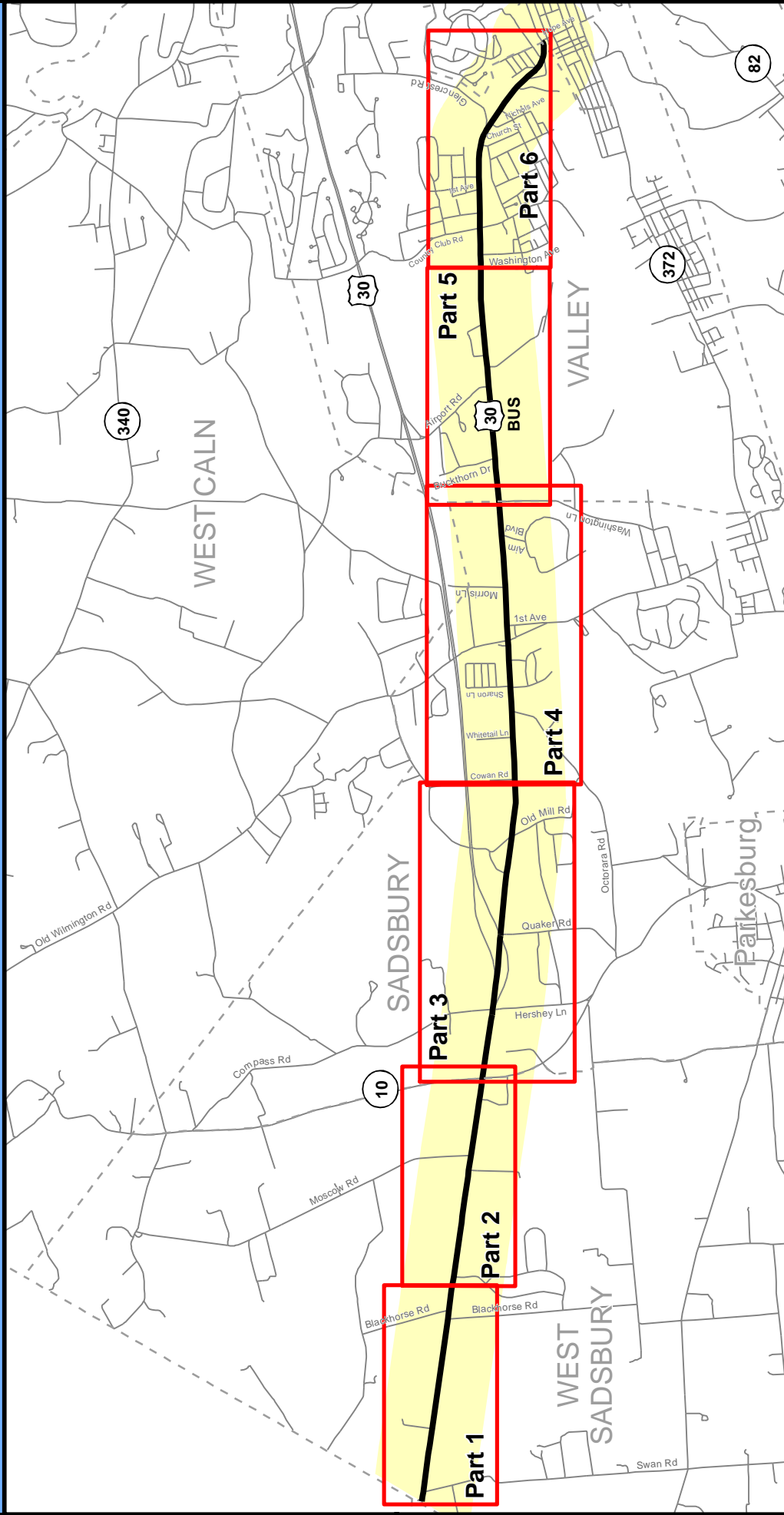
PennDOT's publication *Access Management Model Ordinances for Pennsylvania Municipalities Handbook* was the prime resource used in generating recommendations in the study corridor. Access management strategies and applications within the model ordinances are structured in three tiers in which varying techniques are applied over different physical limits or geographic areas. The first tier focuses on applications suitable for individual parcels (i.e., number, placement, and design of driveways serving a parcel). The second tier addresses techniques for roadways (i.e., provisions for separate turning lanes along, and driveway placement within, a given roadway segment; traffic signal spacing). The third tier applies more comprehensive considerations of traffic and land use planning practices (i.e., zoning overlay districts, official maps, continuous two way left turn lanes, nontraversable medians, etc.).

This study corridor is approximately seven miles long and largely undeveloped. There are existing accesses that could be improved, though the greatest access management benefit will come from properly controlling new access locations and interconnecting local roads. The access recommendations are on a macro scale and relate to the micro-scale traffic safety recommendations of the previous chapter. Much of the conceptual plan shown in **Figures 8–13** may be used as input for official maps.

An official map is a planning tool that municipalities may use to ensure development occurs in an orderly manner. The official map, in the case of this study corridor, can be especially useful in illustrating desired connectivity between adjacent developments and existing arterial highways. Essentially the goal is to promote a roadway network where not every trip must use US 30. An official map can be limited to geographic areas smaller than entire municipalities, and does not require the services of a professional cartographer to complete. The standard process of adopting a municipal ordinance must be undertaken to make the map official. Article IV, Sections 401–408 of the *Pennsylvania Municipalities Planning Code* contains further details.

Figures 8–13 contain the conceptual access management plan for the corridor. The plan focuses on interconnectivity and orderly connections with US 30. Interconnectivity between neighboring developments is key to the plan. The ability to disperse traffic through multiple arterial connections will assist in preserving the long term highway capacity of US 30 in the study corridor.

Figure 7: Conceptual Access Plan Tile Index



- Map Features**
- Municipal Boundary
 - Local Road Network
 - US 30 - Study Corridor

Tile Index

0 0.5 1 Miles

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Figure 8: Conceptual Access Plan (Part 1)







Conceptual Design: Not to Scale
Aerial Imagery: 1 inch = 370 feet



September 2010 (Aerial Imagery: DVRPC, 2005)

Access Management

-  Potential Accessway (Full Movements)
-  Potential Accessway (Restricted Movement: right in, right out only)

-  Potential Connection (alignment is conceptual)
-  Potential Signal Location

Map Features

-  Municipal Boundary
-  Protected Land
-  Parcel Boundary
-  Signalized Intersection

Figure 9: Conceptual Access Plan (Part 2)





Conceptual Design: Not to Scale
Aerial Imagery: 1 inch = 370 feet



September 2010 (Aerial Imagery: DVRPC, 2005)

Access Management

-  Potential Accessway (Full Movements)
-  Potential Accessway (Restricted Movement: right in, right out only)



Potential Connection (alignment is conceptual)



Potential Signal Location

Map Features

-  Municipal Boundary
-  Protected Land
-  Parcel Boundary
-  Signalized Intersection

Figure 10: Conceptual Access Plan (Part 3)





Conceptual Design: Not to Scale
Aerial Imagery: 1 inch = 500 feet





September 2010 (Aerial Imagery: DVRPC, 2005)

Access Management

-  Potential Accessway (Full Movements)
-  Potential Accessway (Restricted Movement: right in, right out only)



-  Potential Connection (alignment is conceptual)
-  Potential Signal Location

Map Features

-  Municipal Boundary
-  Protected Land
-  Parcel Boundary
-  Signalized Intersection

Figure 11: Conceptual Access Plan (Part 4)







Conceptual Design: Not to Scale
Aerial Imagery: 1 inch = 485 feet



September 2010 (Aerial Imagery: DVRPC, 2005)

Access Management

-  Potential Accessway (Full Movements)
-  Potential Accessway (Restricted Movement: right in, right out only)

-  Potential Connection (alignment is conceptual)
-  Potential Signal Location

Map Features

-  Municipal Boundary
-  Protected Land
-  Parcel Boundary
-  Signalized Intersection

Figure 12: Conceptual Access Plan (Part 5)





Conceptual Design: Not to Scale
Aerial Imagery: 1 inch = 400 feet





September 2010 (Aerial Imagery: DVRPC, 2005)



Access Management

-  Potential Accessway (Full Movements)
-  Potential Accessway (Restricted Movement: right in, right out only)



-  Potential Connection (alignment is conceptual)
-  Potential Signal Location

Map Features





-  Municipal Boundary
-  Protected Land
-  Parcel Boundary
-  Signalized Intersection

Figure 13: Conceptual Access Plan (Part 6)



Conceptual Design: Not to Scale
 Aerial Imagery: 1 inch = 400 feet

September 2010 (Aerial Imagery: DVRPC, 2005)

Access Management

<ul style="list-style-type: none"> Potential Accessway (Full Movements) Potential Accessway (Restricted Movement: right in, right out only) 	<ul style="list-style-type: none"> Potential Connection (alignment is conceptual) Potential Signal Location
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Map Features

<ul style="list-style-type: none"> Municipal Boundary Protected Land 	<ul style="list-style-type: none"> Parcel Boundary Signalized Intersection
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Access Management Policy Framework

Introduction

In order to accomplish the physical aspects of access management, the municipal ordinances and comprehensive plan need to be supportive. The role of the comprehensive plan is to highlight the goals, objectives, and policies for the municipality. Access management should be included for the legal soundness of related ordinances. On the ordinance level, access management regulations need to be included in either the subdivision and land development ordinance, or the zoning ordinance, or both. This chapter discusses these aspects of access management, presents a review of the existing framework, and makes recommendations for consideration. Finally, the benefits of an official map are discussed.

Comprehensive Plans

Municipal comprehensive plans are used to state the goals, objectives, and policies of the municipality. They are a requirement of the *Pennsylvania Municipalities Planning Code*. In regards to access management, municipal ordinances must be supported by the goals of the municipality, i.e. in the comprehensive plan. This support must be demonstrated to ensure the legal soundness of the ordinances. Municipalities without a comprehensive plan will be covered by their respective County's comprehensive plan. This applies mostly to rural municipalities.

A review of each township's comprehensive plan was conducted to determine the level of support for access management.



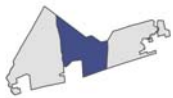
West Sadsbury Township

The West Sadsbury Township comprehensive plan was adopted in 1994. Government Services Incorporated was the planning consultant for the plan's development.

The introduction states: “The Plan establishes a strategy regarding land use, circulation and community facility planning decisions to the year 2010.” A comprehensive plan update should be considered in the near future.

Chapters 7, 8, 9, 10, 11, and 14 contain the framework necessary for the support of access management regulations. The comprehensive plan discusses the benefits, methods, and practices of access management. Chapter 14 recommends that the Township adopt access management regulations.

The next iteration of the Township’s comprehensive plan should continue the support for access management. The Township should request their planning consultant dedicate a portion of the comprehensive plan to access management and refer to it when necessary. The current comprehensive plan thoroughly supports access management, though the support is fragmented throughout.

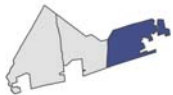


Sadsbury Township

The Sadsbury Township comprehensive plan is the most recent one for the corridor’s municipalities. It was adopted in 2005 and completed with the assistance of The Grafton Association.

The comprehensive plan does not directly address access management. The only statement related to access management is found in Chapter 13 – Implementation. Objective 5 states: “Manage future growth so as to maximize use of current road capacity and avoid creation of additional roads except in cases of failing conditions.” The comprehensive plan also fails to recognize the interconnection between land use and transportation, as they are rarely mentioned relative to one another.

The next comprehensive plan iteration should dedicate a portion to access management. The plan should also consider land use and transportation as being related to one another.



Valley Township

The Valley Township comprehensive plan was adopted in 2003 and completed with the assistance of Pennoni Associates Inc.

The comprehensive plan is supportive of access management, though it does not explain what it is or how it can be employed. A transportation objective on page II-9 states: “...a highway system that ensures the highest degree of mobility and accessibility...” While this objective is accomplished by access management, it may better be stated as achieving a balance between access and mobility that preserves and promotes the desired function of each roadway.

Future iterations of the comprehensive plan should provide more information on access management. The plan should state methods, desired outcomes, and by which means it may be accomplished.

Comprehensive Plan Analysis Conclusion

Access management is the union between land use and transportation. Its purpose is to create that union as organized and mutually beneficial as possible. A subsection dedicated to explaining the benefits and methods of access management should be present in the comprehensive plan. Appropriate references to access management should be present in both land use and transportation sections. An example of a subsection dedicated to explaining the benefits and methods of access management follows.

Access management is employed in the Township to provide for efficient circulation within the limits of the existing transportation system. Access management improves public safety and allows for the utilization of the full capacity of roads within the Township. Ultimately, access management creates a more predictable driving environment. Methods for employing access management include: controlling the number and placement of driveways; the sharing of driveways through joint and cross access, and access to outparcels; ensuring the proper design of driveways; and installing auxiliary turning lanes where necessary, among others. The Township's subdivision and land development ordinance (SLDO) contains access management regulations. In situations where an aspect of access management is not covered in the SLDO, the Township relies on the PennDOT Highway Occupancy Permit process to manage access on state owned roads.

Should an update to the comprehensive plan be in the distant future, this study may be adopted as an addendum to the current comprehensive plan to demonstrate support for access management.

Access Management Regulations

Zoning Ordinance or Subdivision and Land Development Ordinance

Access management regulations may be a part of either a zoning ordinance or a subdivision and land development ordinance (SLDO). Each of the two have benefits, though including access management regulations in the zoning ordinance may be the better fit. Zoning ordinances typically contain regulations which may be complemented by access management regulations; such as parking requirements and setbacks. The downside to placing access management regulations in a zoning ordinance is that the regulations cannot be waived. However, a great benefit of the zoning ordinance is that existing

properties may become nonconforming which enables the future correction of poor access management practice. A compromise may be to place the regulations in the SLDO and have a statement in the zoning ordinance, such as:

Driveways that do not conform to the access management regulations in this ordinance, or in the SLDO Section X.X, and were constructed before the adoption of this ordinance or the SLDO, shall be considered legal nonconforming driveways. However, nonconforming driveway(s) shall be reconstructed to comply with this ordinance, and SLDO Section X.X under all of the following conditions:

1. New driveway permits are requested;
2. modifications to an existing driveway permit are requested;
3. the property owner or applicant applies for a change in property use and the new use will generate more vehicle trips than the existing use; or
4. an expansion of the existing use will result in an increase in trip generation.

The location of the access management regulations should ultimately be determined through a discussion among township officials and their solicitor.

Existing Access Management Regulations

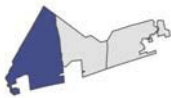
A review of the existing ordinances for each township was conducted. Sadsbury Township's ordinances were reviewed via hard copy, and West Sadsbury and Valley Townships' were reviewed via Ordinance.com. **Table 4** contains a summary of the existing ordinances. The table indicates "yes" or "no" whether a particular aspect of access management is currently covered, without concern for the actual level of coverage. More detail is contained in the subsections for each township.

The review covers the more basic access management regulations. The regulations covered are highly recommended to be adopted and/or updated in the municipal ordinances. Additional access management regulations exist. These regulations will be covered by PennDOT on state owned roads through the highway occupancy permit process. The Townships may consider adopting these additional regulations if needed. They include: safe sight distance, driveway throat length and width, channelizing islands, pedestrian connectivity, signalized intersection spacing, right and left turning lanes, driveway radius, and driveway profile. The ordinance review found that many of these regulations are currently covered. The PennDOT publication *Access Management Model Ordinances for Pennsylvania Municipalities Handbook* contains sample language for these regulations.

Table 4: Summary of Existing Ordinance Regulations

Access Management Category	West Sadsbury	Sadsbury	Valley
Purpose	Yes	Yes	Yes
Applicability	Yes	Yes	Yes
Nonconforming Driveways	No	No	No
Relationship to HOP	No	No	No
Number of Driveways	Yes	Yes	Yes
Driveway Alignment	No	No	No
Driveway Spacing	No	No	No
Corner Clearance	Yes	Yes	Yes
Joint and Cross Access	Yes	Yes	Yes
Internal Access to Outparcels	Yes	No	No

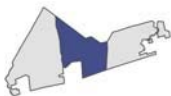
DVRPC, 2010



West Sadsbury Township

Table 4 above notes the existing deficiencies in regulating access management in the Township. There are three areas that would benefit from added coverage: a statement of nonconformity, driveway spacing standards, and driveway alignment. The majority of development is focused along state owned roads meaning that base level access management coverage is done through the highway occupancy permitting process. However, this should not stop the Township from adopting new, or refining existing regulations.

Goals of access management in West Sadsbury Township should be to eventually correct offset intersections and to continue development in an orderly fashion. New developments should be required to connect into existing developments, or leave the possibility of connection to later developments open. The use of cul-de-sacs should be minimized for this reason. Future commercial development in the vicinity of the PA 10 and US 30 intersection should tie into the existing development. New connections to the arterials should be limited to only where using existing connections is not practical.



Sadsbury Township

Most of the major access management techniques are covered in the existing ordinances. Not covered are a statement regarding nonconforming driveways, driveway alignment, driveway spacing, and internal access to outparcels. Additionally, the existing corner clearance regulation is insufficient for major roads. Like all municipalities, restructuring ordinances to centralize all access related regulations into a single subsection would be beneficial in ensuring

coverage, preventing duplicate or contradicting regulations, and ease of comprehension.

Goals of access management in Sadsbury Township should include improving safety at the Compass Road/US 30 intersection, ensuring new development occurs in an orderly manner, and ensuring that a predictable driving environment is available in the denser Sadsburyville.



Valley Township

The access management ordinance coverage for Valley Township is very similar to that of Sadsbury Township. Several core access management regulations are absent: a statement regarding nonconforming driveways, driveway alignment, driveway spacing, and internal access to outparcels. Likewise, the existing corner clearance regulation is insufficient for major roads. Adopting more stringent regulations in the SLDO allows regulations not necessary for certain geographic situations to be waived.

Goals of access management in Valley Township should include connecting Franklin Street to Airport Road, improving the Glencrest Road/US 30 intersection, and continuing development in an orderly manner. Improving existing access deficiencies along US 30 will be beneficial and can be accomplished during changes or expansions of use.

Sample Ordinance Language

Throughout the previous section deficiencies were identified with existing access management related regulations in the municipal ordinances. The following is a proposed set of regulations that may be used in their entirety, or to fill in regulatory gaps. Additional ordinance language is available in the *Access Management Model Ordinances for Pennsylvania Municipalities Handbook* (PennDOT, 2006).

I. Purpose

This ordinance is intended to promote safe and efficient travel within (municipality) by limiting the number of conflict points, providing safe spacing standards between driveways, encouraging shared access between abutting properties, and ensuring safe access by emergency vehicles.

II. Applicability

This ordinance shall pertain to all applications for subdivision and land development approval, or building permits, for lots with frontage along roadways within (municipality).

III. Nonconforming Driveways (locate in zoning ordinance)

Driveways that do not conform to the access management regulations in this ordinance, or in the SLDO Section X.X, and were constructed before the adoption of this ordinance or the SLDO, shall be considered legal nonconforming driveways. However, nonconforming driveway(s) shall be reconstructed to comply with this ordinance, and SLDO Section X.X under all of the following conditions:

1. New driveway permits are requested;
2. modifications to an existing driveway permit are requested;
3. the property owner or applicant applies for a change in property use and will generate more vehicle trips than the existing use; or
4. an expansion of the existing use will result in an increase in trip generation.

IV. Relationship to PennDOT Highway Occupancy Permit

Issuance of a PennDOT Highway Occupancy Permit (HOP) does not guarantee site plan approval by (municipality) nor does it deem the plan in conformance with this ordinance. The HOP submittal to PennDOT should not occur before approval to do so by (municipality). However, upon request of the applicant or request of (municipality), PennDOT may be brought into the review process to reconcile site design and access issues.

V. Number of Driveways

1. One driveway shall be permitted per property. Additional driveways shall be permitted if the applicant demonstrates that:
 - a. For land uses other than individual residences, the design is in the best interest of efficient traffic operations on the site, including but not limited to reducing delays at a single access point that would otherwise operate at worse than a Level of Service 'C' in rural areas and Level of Service 'D' in urban areas, and can improve safety.
 - b. The frontage of the property is sufficient width to permit multiple driveways in accordance with the spacing requirements of Section X.
 - c. For land uses other than single residences all driveways on the property will be interconnected with an internal circulation network. For single residences, multiple driveways shall not be interconnected.
 - d. The Township may restrict additional access to right turn ingress and/or egress only.
2. If the Township anticipates that a property may be subdivided and that subdivision may result in an unacceptable number or arrangement of driveways, or both, the township shall require the property owner to enter into an access covenant to restrict future access.

VI. Driveway Alignment

Access driveway approaches used for two way operation shall be positioned at right angles, that is, 90 degrees, to the roadway or as near thereto as site conditions permit.

When two access driveways are constructed on the same property frontage and used for one way operation, each of these driveways may be placed at an angle less than a right angle, but not less than 45 degrees to the roadway.

VII. Driveway Spacing

1. Driveway spacing is measured from the end of one driveway radius to the beginning of the next driveway radius.
2. The following driveway spacing standards are desirable for arterial highways and major collector roads:
 - a. Principal arterial: 600 feet
 - b. Minor arterial: 400 feet
 - c. Major Collector: 200 feet.
3. Driveways shall be aligned with other driveways and roadways on the opposite side of the intersecting roadway on arterials and major collector roads in order to meet spacing requirements. If alignment is not possible, the intersections shall be offset at least 200 feet measured from the centerline for major collector street and 300 feet for arterials.
4. In no case shall left turns into the driveway be made across a left turn lane serving another driveway or street on the opposite side of the roadway.
5. If these driveway spacing standards cannot be met, a system of joint or cross access driveways, frontage roads, or service roads may be required.

VIII. Corner Clearance

1. Corner clearance shall meet the following driveway spacing standards that are desirable for arterial and major collector roads:
 - a. Principal arterial: 600 feet
 - b. Minor arterial: 400 feet
 - c. Major collector: 200 feet.
2. Access shall be provided to the roadway where corner clearance requirements can be achieved.
3. If the minimum driveway spacing standards cannot be achieved due to constraints, the following shall apply in all cases:
 - a. There shall be a minimum 10 foot tangent distance between the end of the intersecting roadway radius and the beginning radius of a permitted driveway.

- b. The distance from the nearest edge of cartway of an intersecting roadway to the beginning radius of a permitted driveway shall be a minimum of 30 feet.
 - c. Access shall be taken from the intersecting roadway with the lesser functional classification.
4. If no other reasonable access to the property is available, and no reasonable alternative is identified, the driveway shall be located the farthest possible distance from the intersecting roadway. In such cases, directional connections (i.e., right in/right out only, right in only or right out only) may be required.
5. The municipality shall require restrictions at the driveway if the municipal engineer determines that the location of the driveway and particular ingress or egress movements will create safety or operation problems.

IX. Joint and Cross Access

1. The municipality may require a joint driveway in order to achieve the following driveway spacing standards that are desirable for arterial and major collector roads:
 - a. Principal arterial: 600 feet
 - b. Minor arterial: 400 feet
 - c. Major collector: 200 feet.
2. Adjacent nonresidential properties shall provide a joint or cross access driveway to allow circulation between sites wherever feasible along roadways classified as major collectors or arterials in accordance with the functional classification contained in the municipal comprehensive plan. The following shall apply to joint and cross access driveways:
 - a. The driveway shall have a design speed of 10 mph and have sufficient width to accommodate two way traffic including the largest vehicle expected to frequently access the properties.
 - b. A circulation plan that may include coordinated or shared parking shall be required.
 - c. Features shall be included in the design to make it visually obvious that abutting properties shall be tied in to provide cross access.
3. The property owners along a joint or cross access driveway shall:
 - a. Record an easement with the deed allowing cross access to and from other properties served by the driveway.
 - b. Record an agreement with the municipality so that future access rights along the driveway shall be granted at the discretion of the municipality and the design shall be approved by the municipal engineer.

- c. Record a joint agreement with the deed defining the maintenance responsibilities of each of the property owners located along the driveway.

X. Internal Access to Outparcels

For commercial and office developments comprised of more than one building site and under the same ownership at the time of application and consolidated for the purposes of development, (municipality) shall require that the development including all outparcels, be served by an internal drive that is separated from the main roadway. Outparcel access shall demonstrate safe, efficient ingress and egress and avoid queuing across other driveways and parking aisles.

Official Map

None of the studied municipalities currently have an official map. The *Pennsylvania Municipalities Planning Code* states that an official map “may show appropriate elements or portions of elements of the comprehensive plan...” (Section 401). If the comprehensive plan thoroughly covers access management, an official map is a useful implementation tool.

The official map may be used for the ‘bigger’ access management practices. For this study corridor, an official map would be useful for identifying locations where roads associated with new developments will intersect existing roads. It could also re-enforce desired connectivity between neighboring developments. Finally, it can be used to illustrate the municipalities desire to correct offset intersections, such as with the North and South Blackhorse Road intersections with US 30 in West Sadsbury Township.

An official map need not cover an entire municipality. It may cover a single corridor, or a combination of corridors.

An official map would be most beneficial for West Sadsbury and Sadsbury Townships. Each of the two have considerable amounts of undeveloped land. The official map can be a tool to ensure development occurs in an orderly fashion. **Figures 8–13** on pages **39 – 44** can be used as inputs for the creation of an official map.

Conclusion and Implementation

This access management case study addresses an emerging corridor in western Chester County. Municipalities along this US 30 corridor include West Sadsbury Township, Sadsbury Township, and Valley Township. US 30 serves as both a regional arterial and a main street for the corridor's municipalities.

Highway access management techniques were assembled into a conceptual plan for the study corridor to improve safety and mobility and to prolong highway serviceability in light of ongoing regional growth and development. The work was performed by DVRPC staff in support of PennDOT's effort to promote wider planning for and application of access management procedures within the Commonwealth. The procedures are applicable to both state and local highways, and the strategies are most effectively delivered through municipal ordinances that govern the land development design, application, review, and approval process. As such, principal guidance for developing the plan work was obtained from PennDOT's publication *Access Management Model Ordinances for Pennsylvania Municipalities Handbook*.

Opportunities to correct access management deficiencies are present during redevelopment and changes of use with the proper enabling ordinances enacted. Appropriately designed access for new development is a simpler task to accomplish, but both developed and developing parcels need to be recognized and addressed in the vision, to effect a comprehensive improvement for the study corridor. Before any physical access management improvements can be made or implemented, access management regulations need to be adopted by the township.

The recommendations of this study are summarized in **Table 5**, Plan Implementation Matrix. The Plan Implementation Matrix is a list of tasks needed to implement municipal access management regulations, as well as some of the other recommendations that resulted from this study.

Ultimately, this study sought to accomplish three tasks: *Educate* municipal officials to the benefits of access management; *Encourage* corridor municipalities to adopt enabling ordinances; and *Enable* corridor municipalities to proactively shape access along US 30 to be safe and efficient.

Table 5: Plan Implementation Matrix

Priority	Plan Aspect	Notes	Responsible Party	Township	Task(s)
ACCESS MANAGEMENT					
1	Comprehensive Plan	Must support municipal goal of managing access on all roads with in the township	Township	W. Sadsbury Sadsbury Valley	Conduct a comprehensive plan update. Adopt this study as an addendum. Adopt this study as an addendum.
2a	Zoning Ordinance	May contain all, some, or no access management regulations	Township	All	Remove existing access related regulations. Adopt a statement of nonconformance applicable to all zoning districts. Direct all zoning districts to follow access regulations found in the subdivision and land development ordinance.
2b	Subdivision and Land Development Ordinance	May contain all, some, or no access management regulations.	Township	All	Remove existing access related regulations. Use sample ordinance language to create an access management subsection for adoption. Create references to subsection throughout SLDO as needed.
2c	Official Map (optional)	Can be used to show desired road connectivity and access locations	Township	All	Adopt Conceptual Access Plans, or consultant developed maps as official maps as related to desired connectivity and access locations. Must be supported by a municipal ordinance.
3	PennDOT Coordination	As the HOP reviewer, coordination with PennDOT is important	Township PennDOT	All	Keep PennDOT informed of current access management regulations.
4	Practice	Ongoing practice of access management	Township PennDOT Developers	All	Ensure planning commission members and township engineers are aware of existing access management regulations.
TRAFFIC SAFETY / MULTI-MODAL CONNECTIVITY / OTHER					
1	Speed Study	To determine ideal speed limit along US 30	PennDOT	All	Contact PennDOT District 6.0 Traffic Engineer to request a speed study. The entire study corridor, sans Sadsburyville should be subject to the speed study.
2	Municipal Coordination	Coordinate land and transportation planning	Sadsbury, W. Sadsbury	Sadsbury, W. Sadsbury	Create an inter-municipal PA 10 planning committee to coordinate land use and transportation planning along the shared highway.
3	Signal Timing	Ensure adequate time is available for turning and through traffic	Sadsbury, W. Sadsbury	Sadsbury, W. Sadsbury	Have township engineer(s) assess the US 30/PA 10 and PA 10/ Commons Drive traffic signals for proper signal timing. Consider left turns during protected signal phase only. Adjust as necessary.
4	Compass Road intersection	Improve safety	Sadsbury, PennDOT, Developers	Sadsbury	Sadsbury Township should work with PennDOT to find and implement traffic safety mitigation measures for the US 30/ Compass Road intersection.
5	Bike/Ped. Connectivity	Provide multi-modal transportation options	Sadsbury, Valley, Developers	Sadsbury, Valley	Continue efforts to connect by sidewalks and bike lanes, or multi-use trails Coatesville and PA 10. This will primarily occur through development though townships may be needed to fill gaps.
6	US 30/PA 10 Intersection Relief Routes	Enable local travel not reliant on the US 30/ PA 10 intersection	Sadsbury, W. Sadsbury	Sadsbury, W. Sadsbury	As the US 30/PA 10 intersection area continues to develop ensure ring roads, such as Commons Drive are included in planning efforts. This will provide relief to the US 30/PA 10 intersection.
7	Sign Audit	Ensure proper signage is in place	W. Sadsbury, Sadsbury, Valley, PennDOT	All	Conduct a sign audit for the US 30 study corridor to ensure proper signage is in place. Particular attention should be paid to safety related signage.

Acknowledgments and References

Acknowledgments

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- ◆ Mr. Barry Edwards – West Sadsbury Township
- ◆ Mr. Jim Landis – West Sadsbury Township
- ◆ Ms. Stephanie Silvernail – Sadsbury Township
- ◆ Mr. Walter Pietschmann – Valley Township
- ◆ Mr. Wes Bruckno – Chester County Planning Commission
- ◆ Mr. Kevin Meyers – Chester County Planning Commission
- ◆ Mr. Randy Waltermeyer – Chester County Planning Commission
- ◆ Mr. Francis Hanney – PennDOT Engineering District 6-0
- ◆ Mr. John Otten – PennDOT Engineering District 6-0

The study team kindly thanks Ms. Stephanie Silvernail and Sadsbury Township for their gracious offering to host all study advisory committee meetings.

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APPENDIX A



Summary of Intersecting Road Traffic Counts

Township	Road	Between	2-way AADT*	Hourly Traffic Volume (hour beginning)																							
				12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
West Sadsbury	County Line Rd	US 30	822	4	1	2	7	34	45	49	50	34	40	44	39	49	61	62	59	63	64	47	34	26	18	19	
	Swan Rd	US 30	3,020	20	9	9	31	137	212	234	171	165	134	153	155	149	184	223	250	276	195	115	104	77	48	57	
	S Black Horse Rd	US 30	724	1	2	2	17	29	52	55	51	30	38	32	44	35	46	55	57	73	42	32	23	16	9	8	
	N Black Horse Rd	US 30	283	2	0	0	2	12	28	15	11	21	18	18	21	16	30	20	23	27	11	10	6	5	3	2	
	Moscow Rd	US 30	619	5	2	4	3	22	20	25	53	44	34	49	48	40	42	50	55	48	41	24	20	9	8	11	
West Sadsbury/Sadsbury	PA 10	US 30	8,185	43	38	38	25	96	205	428	530	474	492	526	474	498	502	617	671	663	538	325	236	193	100	75	
	PA 10	Leike Rd	15,727	75	60	53	58	144	393	722	1,016	988	884	904	981	992	957	1,152	1,259	1,382	1,371	1,089	732	478	400	236	153
Sadsbury	Old Mill Rd	US 30 Bus	279	2	1	0	0	1	6	25	15	23	14	3	10	13	13	34	21	30	25	21	4	10	5	3	
	Quaker Dr	US 30 Bus	324	0	1	3	0	4	7	14	17	27	7	9	27	27	17	27	27	29	21	10	12	4	5	2	
	Old Mill Rd	US 30 Bus	252	2	0	3	2	0	3	11	13	15	16	15	21	14	11	19	25	22	17	16	12	10	5	4	
	Octoraro Rd	US 30 Bus	1,734	21	6	2	4	12	51	105	154	104	69	81	90	124	88	109	155	161	129	115	69	68	43	19	
	Old Wilmington Rd	US 30 Bus	2,921	26	7	5	0	11	51	138	221	196	145	120	132	148	168	168	243	271	290	233	164	133	82	60	
	Old Wilmington Rd	US 30 Bus	3,690	29	7	8	8	24	136	235	246	218	178	155	178	205	190	270	325	371	314	237	167	143	105	57	
	Washington Ln	US 30 Bus	2,239	33	18	32	21	76	110	95	113	120	71	93	156	131	110	145	146	164	125	89	63	106	57	42	
Valley	Buckthorn Dr	US 30 Bus	546	2	4	0	0	1	11	22	35	31	28	23	45	66	37	40	32	39	50	34	22	15	17	10	
	Country Club Rd	US 30 Bus	2,233	13	2	5	2	5	29	97	185	177	104	110	90	139	117	141	171	154	227	197	131	91	61	38	

*The AADT is the result of a seasonal correction factor being applied to the counted volume
 All AADTs resulted from traffic counts conducted in October and November 2009
 DVRPC, 2010

Publication Title: Managing Access along US 30 in Western Chester County

Publication Number: 10026

Date Published: September 2010

Geographic Area Covered: Sadsbury Township, Valley Township, and West Sadsbury Township, Chester County, Pennsylvania

Key Words: Highway access management, congestion management, traffic safety, crash mitigation, corridor planning, model ordinance, growth management

Abstract: The evaluations summarized in this report were performed in support of PennDOT's statewide effort to promote the establishment of formal access management ordinances for state and local highways. A case study of US 30 (business route where applicable) in western Chester County was conducted and a conceptual plan prepared for the study corridor as a tangible illustration of the benefits of planning and implementing access management strategies, and as a means of combating congestion and enhancing traffic safety.

In addition to providing a conceptual plan for the study corridor, the study also analyzed the existing access management regulation in each of the township zoning and subdivision and land development ordinances. Where regulatory gaps were found, recommendations with sample ordinance language were provided.

Staff Contact: Michael Becker
Transportation Planner
☎ (215) 238-2834
✉ mbecker@dvrpc.org

Delaware Valley Regional Planning Commission
190 N. Independence Mall West, 8th Floor
Philadelphia PA 19106
Phone: (215) 592-1800
Fax: (215) 592-9125
Internet: www.dvrpc.org

