

O'HARA TOWNSHIP

Comprehensive Development Plan

Chapter 7 - Transportation and Circulation

OVERVIEW

The transportation network in O'Hara Township evolved from access to two (2) regional arterials, PA 28 and SR 1001, Freeport Road, which, in their current configuration, were constructed on the northern shore of the Allegheny River Valley during periods of growth following World War II and again during the 1960's. Four (4) suburban collector roadways owned and maintained by the Commonwealth, Saxonburg Boulevard (SR 1013) and Dorseyville Road (SR 1003 segment maintained by Allegheny County), Kittanning Pike (SR 1003), and Powers Run Road (SR 1009) provide access to the arterial roadways along the southern perimeter of the Township on both the eastern and western areas of O'Hara Township. These suburban collectors in turn distribute traffic to and from local neighborhoods via minor collector streets and local streets designed to provide direct access to developed residential lots.

Both Powers Run Road on the east and Kittanning Pike on the west carry north-south traffic to and from the SR 28 corridor. In addition, Fox Chapel Road, owned and maintained by Allegheny County, intersects with SR 28 at a full interchange west of the link between PA 28 and Freeport Road. Freeport Road also functions as the main street and central commercial corridor through Sharpsburg, Aspinwall and Blawnox Boroughs, with each Borough's northern municipal boundary abutting a portion of O'Hara Township's southern municipal boundary. The Allegheny River corridor that supported commerce regionally in the early years of settlement expansion continued to function as the conduit to developing communities and industries with the introduction of rail lines and later the construction of limited access highways. This development pattern also provided a physiographic buffer between emerging residential neighborhoods on the northern slopes of the Allegheny Valley and the river, rail and highway facilities along the valley floor.

EXISTING TRANSPORTATION INFRASTRUCTURE¹

In 2005, O'Hara Township retained a consultant to prepare a Recreational Trail Feasibility and Planning Study to supplement its Comprehensive Parks, Recreation and Open Space Plan, adopted in 2002, which identifies future recreation needs and opportunities. Part of that study, which is discussed further in Chapter 8, Government

¹ O'Hara Township Trail Feasibility and Planning Project, prepared by PBS&J TriLine, April 2005.

and Community Facilities, included an inventory of transportation corridors with an emphasis on links and origin and destination characteristics. A local transportation network functions on a variety of levels, as discussed, with ownership and maintenance of segments of a network, depending on traffic volumes and connectivity. For example, the Allegheny Valley Expressway (SR 28) provides access to regional destinations, carries high volumes of traffic, and is maintained by the Commonwealth to provide links to regional employment centers and developing areas. Whereas, local streets such as Woodshire Drive and Linwood Avenue provide access to individual residential lots, carry minimum traffic volumes and are maintained by O'Hara Township. Excerpts from the trail feasibility study follow:

MAIN TRANSPORTATION CORRIDORS:

- PA 28 (Allegheny Valley Expressway), built in the 1960's and 70's is a limited access highway from Millvale to Kittanning connecting O'Hara Township to downtown Pittsburgh to the south and the Allegheny River Valley communities to the northeast. The highway also passes the Pennsylvania Turnpike (I-76) at Harmar which provides further connections to eastern Pennsylvania and Ohio.
- PA 8 intersects with PA 28 at Etna. PA 8 provides a connection across the Allegheny River (via 62nd Street Bridge) to the City of Pittsburgh and further to the eastern suburbs. To the north, PA 8 travels to the City of Butler and beyond.
- The Highland Park Bridge spans the Allegheny River between Sharpsburg and Aspinwall. It provides a second connection between PA 28 and PA 8 (Washington Blvd.).
- The main railroad lines through the study area follow the banks of the Allegheny River. On the Township of O'Hara side of the river is an active Norfolk and Southern rail line. Crossing the Allegheny River just upstream of the Highland Park Bridge is a railroad trestle owned by the Allegheny Valley Railroad called the Brilliant Branch Railroad Bridge. Currently it is being rehabilitated for future rail use. Another rail line (CSX) follows PA 8 north along the western edge of the study area.

OTHER IMPORTANT LOCAL ROADWAYS INCLUDE:

- Freeport Road (old PA 28) – Connects Main Street in Sharpsburg. Provides local traffic connections to Aspinwall, Blawnox, Harmar, Fox Chapel, and O'Hara via Fox Chapel Road.
- Fox Chapel Road – A main transportation corridor into Fox Chapel and parts of O'Hara.
- Dorseyville Road – Via Kittanning Street, connects Etna to western O'Hara and on to Fox Chapel and Indiana.
- Kittanning Pike – Connects Sharpsburg and western O'Hara.
- Saxonburg Boulevard – A main transportation corridor in the northwestern part of the study area. It parallels Dorseyville Road from Shaler, through O'Hara, into Indiana.

PROGRAMMED IMPROVEMENTS

Two (2) transportation improvements in O'Hara Township were programmed through the Southwestern Pennsylvania Commission's Transportation Improvement Program, as part of PennDOT's twelve (12) year funding

cycle. Both projects involved resurfacing on SR 28 and the Highland Park Bridge and were completed in 2008. While these improvements were considered rehabilitation projects as opposed to capacity improvements, the work completed provides for the short-term movement of increasing traffic volumes at critical access points. Project descriptions and associated costs follow:

SPC TRANSPORTATION IMPROVEMENT PROGRAM

2005-2008

SR 28 NB/Ravine-Highland			PennDOT 41				
Highway	57698		1006002			RESURFACE	
<i>PROJECT FUNDING:</i>			2005	2006	2007	2008	TOTAL
Construction	Federal	NHS	--	--	--	320,000	320,000
	State	581	--	--	--	80,000	80,000
			--	--	--	400,000	400,000
<i>Source: Southwestern Pennsylvania Commission, 2005-2008 Transportation Improvement Program</i>							

2007-2010

28/SR1009 – Bailey Road			PennDOT 50				
Concrete patch and bituminous overlay the existing lanes, interchange ramps and bridge rehab work (State funds are 876 and additional to the region)							
<i>PROJECT FUNDING:</i>			2007	2008	2009	2010	TOTAL
Construction	Federal	BOO	2,400,000	--	--	--	2,400,000
	Federal	STP	9,800,000	5,102,524	--	--	14,902,524
	Local	Local	5,055,000	--	--	--	5,055,000
	State	185	600,000	--	--	--	600,000
	State	818	1,750,000	--	--	--	1,750,000
			19,605,000	5,102,524	--	--	24,707,524
<i>Source: Southwestern Pennsylvania Commission, 2007-2010 Transportation Improvement Program, adopted July 31, 2006</i>							

It should be noted that O'Hara Township reported revenues and expenditures indicates that between 1998 and 2005, the eight (8) year average annual expenditure for street and road maintenance was a little over 1.5 million dollars or about twenty-two percent (22%) of O'Hara Township's average annual total for expenditures, of slightly less than seven (7) million dollars. As total expenditures grew from 5.7 million dollars in 1998 to 9.8 million dollars in 2005, street and road maintenance increased from 1.4 million dollars in 1998 to a little over 2.0 million dollars in 2005. At present, the Township maintains 40.42 miles of streets and roads, while PennDOT maintains 22.40 miles of road and Allegheny County maintains 3.12 miles of road for a total of slightly less than 66 miles of public transportation facilities. (Source: PennDOT Type V map)

RECENT (AADT) TRAFFIC VOLUMES

The Pennsylvania Department of Transportation collected traffic counts along a number of segments through O'Hara Township in 2007, in anticipation of the two (2) programmed improvements coordinated by the Southwestern Pennsylvania Commission. The characteristics of O'Hara Township's transportation and circulation network have evolved from the natural features and land forms within the municipal boundaries. The primary transportation corridor was the Allegheny River Valley which continued to support local and regional infrastructure components through the latter part of the 20th Century. The rail lines and surface transportation components evolved as the region attracted small businesses, light industrial development, and residential home builders.

With the commercial and light industrial uses developing along road segments with access to Old Freeport and Freeport Roads, the residential neighborhoods developed on the terraces rising from the river valley on the northern side of the Allegheny River. The Kittanning Pike and Dorseyville Road on the west and Powers Run Road on the east function as the primary residential collectors and carry a range of daily traffic 2,000 and 6,000 vehicles. While there is no distinction between pass-through traffic versus primary traffic, given the number of sub-collector residential streets with links to these roads, a high percentage of the traffic volume represents trip ends to and from individual residential lots.

In addition to these residential collector roadways, Saxonburg Boulevard in the northwestern quadrant of the Township carries traffic volumes in the 6,000 to 12,000 vehicle range along different segments. While a higher percentage of pass-through traffic is carried on this collector, Dorseyville Road which carries in the 2,000 to 6,000 vehicle trip range, provides access to residentially developed areas abutting Fox Chapel Borough. Both Field Club Ridge Road, and Field Club Road in the northeast also provide access primarily to residentially developed areas and are locally owned and maintained.

As discussed earlier in this work element, the transportation facilities carrying the highest traffic volumes are all situated along the north shore of the Allegheny River, in the southern tier of O'Hara Township. State Route 28, or the Allegheny Valley Expressway, generally follows the Allegheny River Valley, including the bend on the eastern half of the Township. Through the western and central areas of O'Hara Township this arterial roadway carries a range of between 24,000 and 33,000 thousand average vehicles daily. In the area studied by the Township's Traffic Engineer, where interchanges with Fox Chapel Road, Freeport and Old Freeport Roads occur, most of the trips are pass-through trips with origins and destinations beyond the municipal boundaries. These interchange areas as well as the Highland Park Bridge interchange with Freeport Road account for some of the

highest traffic volumes registered by PennDOT in 2007. The segment of SR 28 on the eastern side of O'Hara Township also provides direct access to a regional employment generator, the RIDC Park.

TRAFFIC AND TRANSPORTATION CIRCULATION ANALYSIS

In order to evaluate current conditions, in the Township's commercial corridors and in order to develop long range planning objectives for transportation oriented land use, redevelopment and infill development, a technical report was prepared by David E. Wooster and Associates, Inc. The report was submitted for review in September of 2009 and the scope of the study included an evaluation of year 2008 traffic conditions, which was supplemented with manual turning movement counts for the a.m. and p.m. peak hours at five (5) key intersections. Further data regarding traffic volumes, vehicle classification and speeds was collected utilizing Automatic Traffic Recorders (ATR's) at six (6) locations in the Freeport Road corridor. This information provided the consultant with options to recommend mitigations or transportation improvements designed to address projected future capacity deficiencies in the most heavily traveled corridor in O'Hara Township.

While the long-range solution to circulation and traffic movements through this area is beyond the ability of the Commonwealth to fund at this point in time, knowledge that a possible solution has been identified will support future decision-making related to PennDOT's twelve (12) year program. A more modest, albeit less systemic solution involves the possible relocation of approximately 750 linear feet of Old Freeport Road to the east of its current intersection with Freeport Road and Fox Chapel Road. With the removal of an approach, and the potential for redevelopment of current underdeveloped parcels, with uncontrolled access abutting the Freeport Road right-of-way, circulation might be significantly improved through this commercial corridor. Further discussion with property owners and stakeholders for this transportation/land use initiative is recommended. A summary of the Wooster and Associates analysis is as follows, including a series of six (6) figures which present a variety of data given certain parameters.

TRANSPORTATION ANALYSIS

David E. Wooster and Associates²

1.0 INTRODUCTION

David E. Wooster and Associates has completed a traffic and transportation circulation analyses as part of the O'Hara Township Comprehensive Plan update. The analyses include an evaluation of the capacity and the operational characteristics at several critical intersections along Fox Chapel Road, Freeport Road, Old Freeport Road, and Zaenger Drive. The critical intersections were evaluated for the following conditions:

- *Existing Year 2008 (projected) Conditions*
- *Projected Design Year 2020 Conditions*
- *Projected Design Year 2020 Conditions With Improvements*

2.0 STUDY AREA

The study area for this project includes thirteen existing intersections along Fox Chapel Road, Freeport Road, Old Freeport Road, and Zaenger Drive. These include:

- *Fox Chapel Road and Route 28 Southbound Ramps*
- *Fox Chapel Road and Route 28 Northbound Ramps / Retail Driveway*
- *Freeport Road and Route 28 Northbound Off-Ramp*
- *Freeport Road and Fox Chapel Road / Old Freeport Road (west)*
- *Freeport Road and South Oak Hill Road*
- *Freeport Road and East Oak Hill Road*
- *Freeport Road and Freeport Road Spur*
- *Freeport Road and Old Freeport Road (east)*
- *Freeport Road and Route 28 On / Off Ramps / Fairview Avenue*
- *Old Freeport Road and Chapel Harbor Drive*
- *Old Freeport Road and Riverfront Drive*
- *Zaenger Drive and Chapel Harbor Drive*
- *Zaenger Drive and Riverfront Drive*

3.0 EXISTING TRAFFIC VOLUMES

In order to establish the Existing Year 2008 Condition traffic volumes, new traffic data was collected at several locations and combined with the traffic data from several recently performed Traffic Impact Studies for proposed developments in the study area.

² All references to Figures and Appendices are in reference to the original David E. Wooster and Associates Transportation Analysis Report.

3.1 New Data Collection

3.1.1 Manual Turning Movement Counts

Manual turning movement counts were performed at the following intersections between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m. These times were chosen because they typically reflect the morning (AM) and evening (PM) peak hours for vehicular traffic. The counts were performed at the following intersections:

- Freeport Road and Fox Chapel Road / Old Freeport Road
- Freeport Road and Route 28 Ramps / Fairview Avenue
- Old Freeport Road and Chapel Harbor Drive
- Old Freeport Road and Riverfront Drive
- Zaenger Drive and Chapel Harbor Drive

Summaries of the manual turning movement counts can be found in Appendix A at the end of this report.

3.1.2 Automatic Traffic Recorders

In addition to the manual turning movement counts, Automatic Traffic Recorders (ATRs) were installed at several locations throughout the study area. The ATRs were programmed to identify volume, class, and vehicular speeds. ATRs were installed at the following locations:

- Freeport Road Eastbound and Westbound – east of Oak Hill Road
- Old Freeport Road Eastbound and Westbound – east of Riverfront Drive
- Freeport Road Spur – east of the split approach to Freeport Road
- Freeport Road Spur – merge to Freeport Road westbound

Summary printouts of the ATR data have been included in Appendix B at the end of this report.

3.2 Data from Previous Studies

In addition to the new traffic data, manual turning movements and traffic projections from the following Traffic Impact Studies were evaluated and utilized to establish the Existing Year 2008 Conditions traffic volumes:

- Revised Traffic Impact Analysis for the Fox Chapel Commercial Development, November 2005 – Prepared by L. Robert Kimball and Associates
- O'Hara Village Traffic Impact Study, March 4, 1994 – Prepared by Trans Associates
- Revised Traffic Impact Study for the Chapel Harbors at the Water Residential Unit Development, March 26, 2002 – Prepared by Trans Associates

As has been described, the new traffic data and data previously collected were utilized to establish the Existing Year 2008 Condition traffic volumes, which can be seen graphically on Figure 1.

4.0 DESIGN YEAR BASE CONDITION TRAFFIC VOLUMES

In order to establish Design Year 2020 Condition traffic volumes, a linear growth rate of 1.2% (obtained from the Southwest Pennsylvania Commission) was applied to the Existing Year 2008 Condition traffic volumes to develop the Design Year 2020 Base Condition traffic volumes, which can be seen graphically on Figure 2.

5.0 DESIGN YEAR 2020 TRAFFIC VOLUME PROJECTIONS

5.1 Approved But Not Yet Completed Developments

In addition to the background traffic growth, additional traffic associated with yet to be completed Chapel Harbor and Yacht Club Village developments was projected and distributed through the study area. Specifically, there are approximately 60 condominium / townhouse units that have yet to be built and occupied within the Chapel Harbor development. The Chapel Harbor Development is located along the Allegheny River, west of the intersection of Zaenger Drive with Chapel Harbor Drive. There are approximately 100 luxury condominium / townhouse units that have yet to be built and occupied within the Yacht Club Village development.

5.2 Trip Generation Estimates

In order to estimate the additional trips associated with the Chapel Harbor and Yacht Club Village developments, the Institute of Transportation Engineer's publication *Trip Generation*, 8th Edition, was utilized. Specifically, ITE Land Use Code 230 (Residential Condominium / Townhouse) and ITE Land Use Code 233 (Luxury Condominium / Townhouse) were utilized. Summaries of the trip generation calculations can be found in Appendix C at the end of this report.

The additional trips associated with these two developments were distributed through the study area using the existing traffic distribution at the intersection of Freeport Road with Fox Chapel Road / Old Freeport Road. The additional traffic from these developments can be seen graphically on Figure 3.

The additional traffic from the Chapel Harbor and Yacht Club Village developments (Figure 3) was then combined with the Design Year 2020 Base Condition traffic volumes to develop the Design Year 2020 Condition traffic volumes, which can be seen graphically on Figure 4.

6.0 CAPACITY ANALYSES

Capacity analyses were performed at the study intersections to determine the existing Level-of-Service and operational characteristics of the intersections. Specifically, the AM and PM peak hour intersection Levels-of-Service were evaluated to determine if any of the intersections currently or are anticipated to operate at poor or failing Levels-of-Service.

Using the traffic volumes developed for each scenario, HCS and Synchro assign a Level of Service (LOS) to each lane group, approach to an intersection, and an overall intersection. These LOS range from "A" to "F", similar to a school's grading system, with LOS A being the best possible traffic operation conditions and LOS F being the worst.

6.1 Existing Year 2008 Conditions

Analyses show that all of the individual lane groups, intersections approaches, and overall intersections currently operate at LOS D or better during both the AM and PM peak hours. Typically, LOS D is considered "acceptable" along arterial roadways and on the State Highway system in urban areas with similar demographics to O'Hara Township. As such, the existing study roadway network provides adequate capacity to accommodate Existing Year 2008 AM and PM peak hour traffic volumes.

Copies of the HCM printouts from Synchro for the Existing Year 2008 Conditions are included in Appendix D at the end of this report.

6.2 Design Year 2020 Conditions

Analyses of the Design Year 2020 Conditions show that several lane groups and approaches are anticipated to degrade to LOS E as a result of background traffic growth as well as the completion of the Chapel Harbor and Yacht Club Village developments. Specifically, the following lane groups / approaches are anticipated to operate at poor or failing Levels-of-Service under Design Year 2020 Conditions:

- *Fox Chapel Road and Route 28 Southbound Ramps*
 - *Eastbound Approach – LOS F*
 - *Northbound Left Turns – LOS E*
- *Fox Chapel Road and Route 28 Northbound Ramps / Retail Driveway*
 - *Eastbound Left Turns – LOS E*
- *Freeport Road and Fox Chapel Road / Old Freeport Road*
 - *Southbound Left Turns – LOS E*

The remaining study intersections are anticipated to operate at LOS C or better under Design Year 2020 Conditions.

Copies of the HCM printouts from Synchro for the Design Year 2020 Conditions are included in Appendix E at the end of this report.

7.0 MITIGATION

Based on the analyses performed, the following intersections within the study area are anticipated to experience continued impacts to traffic operations as a result of general background traffic growth as well as additional development / redevelopment of the land along the Allegheny River and Old Freeport Road corridor:

- *Fox Chapel Road and Route 28 Southbound Ramps*
- *Fox Chapel Road and Route 28 Northbound Ramps / Retail Driveway*
- *Freeport Road and Fox Chapel Road / Old Freeport Road*

7.1 Fox Chapel Road

In order to mitigate the projected operational deficiencies at these three intersections, significant infrastructure improvements would be required. Specifically, Fox Chapel Road would need to be widened to provide an additional travel lane between the Route 28 Southbound Ramps and the Route 28 Northbound Ramps. This widening would require the replacement of the existing bridge structures that carry Route 28 over Fox Chapel Road.

The additional travel lane should be an additional southbound travel lane from the Route 28 Southbound Ramp terminus to the Route 28 Northbound Ramp terminus (where there are currently two southbound lanes). This would permit the inclusion of dual right turn lanes on the Route 28 Southbound Off-Ramp (one exclusive right turn lane and one shared left / right turn lane). At the Route 28 Northbound Ramp terminus, the additional travel lane should be to provide an auxiliary northbound left turn lane for traffic destined to Route 28 northbound and an auxiliary southbound left turn lane onto the Retail Driveway.

7.2 Old Freeport Road

In addition to the widening of Fox Chapel Road, the relocation of Old Freeport Road to a location approximately 750 feet east of Fox Chapel Road might result in a significant benefit to the operation of traffic at the intersection of Freeport Road with Fox Chapel Road. The newly constructed intersection of Freeport Road with Relocated Old Freeport Road could also be projected to operate at acceptable Levels-of-Service with the installation of traffic signal control (to be coordinated with the existing traffic signals along Freeport Road), the construction of an auxiliary westbound left turn lane on Freeport Road, and the construction of an auxiliary eastbound right turn lane on Freeport Road.

Figure 5 depicts the projected redistributed traffic resulting from the relocation of Old Freeport Road to a new intersection approximately 750 east of its current location. The redistributed traffic (Figure 5) was then combined with the Design Year 2020 Condition traffic volumes to develop the Design Year 2020 Adjusted traffic volumes, which can be seen graphically on Figure 6.

7.3 Design Year 2020 Mitigated Conditions Capacity Analyses

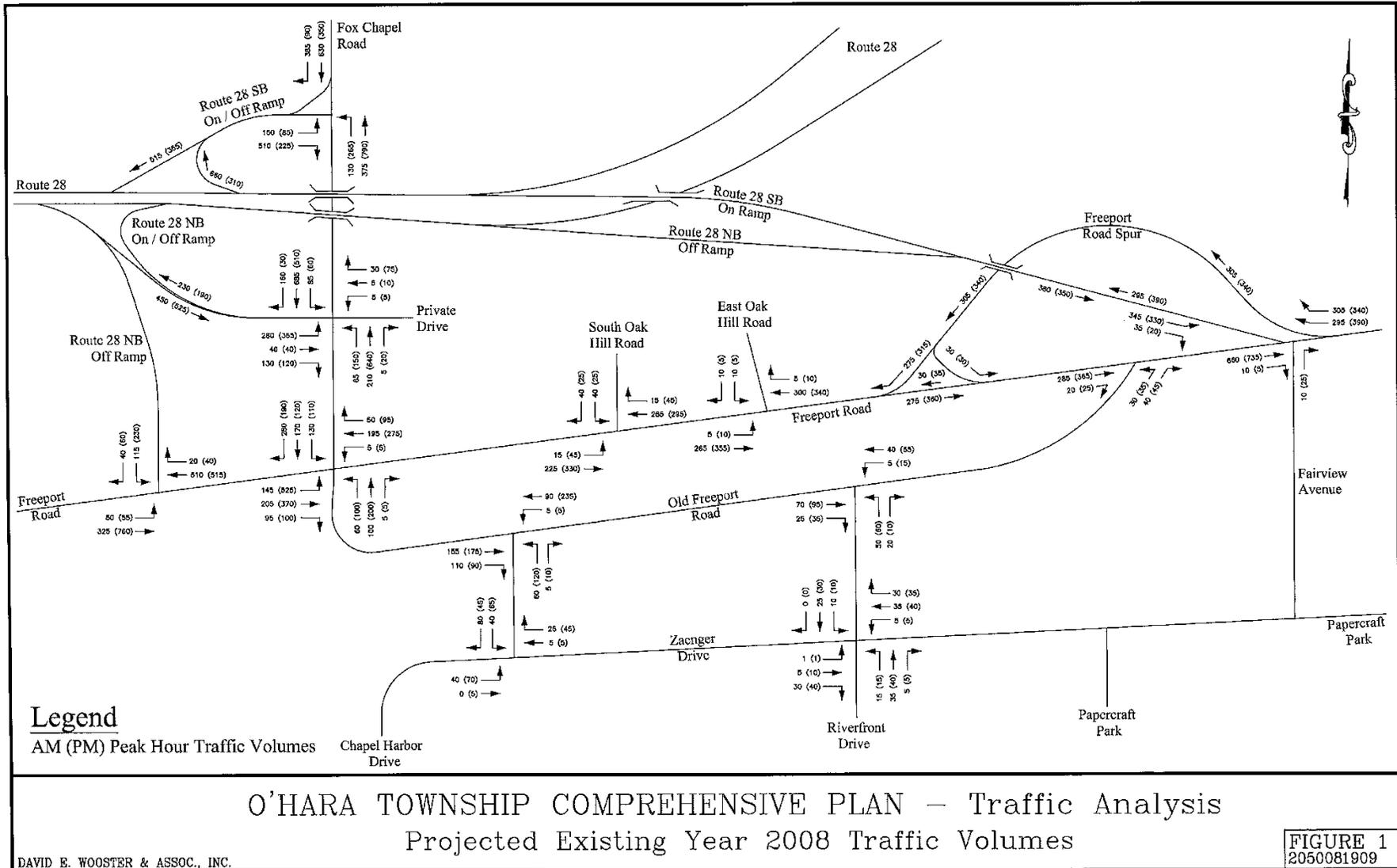
Capacity analyses show that with the implementation of the mitigation measures described in Section 7.2, all of the study area intersections would be anticipated to operate at Level-of-Service D or better. Copies of the HCM printouts from Synchro for the Existing Year 2008 Conditions are included in Appendix F at the end of this report.

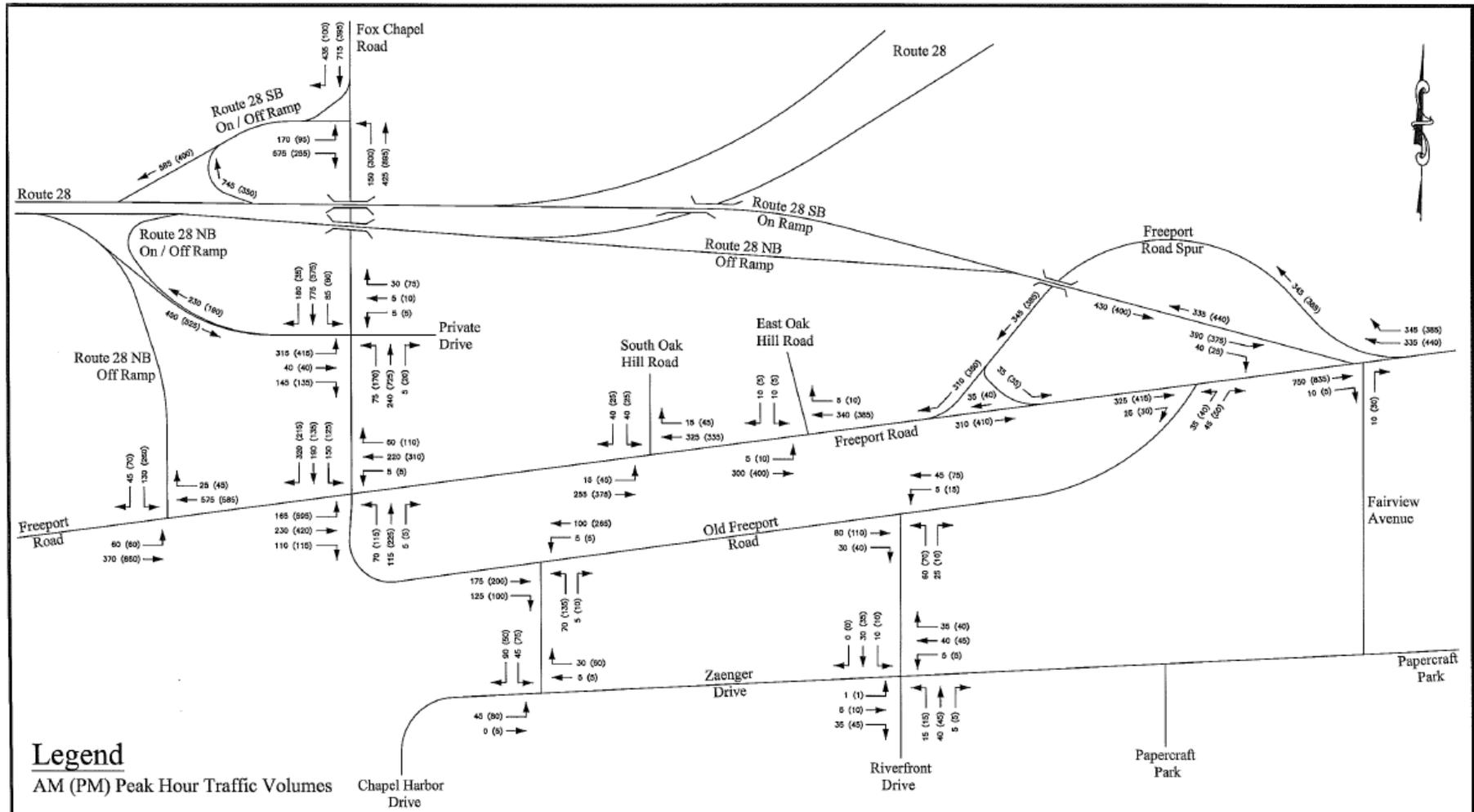
8.0 RECOMMENDATIONS

Given the scope of the improvements that would be required to accommodate the projected AM and PM peak hour traffic volumes throughout the study area, it is recommended that the Township begin seeking possible funding sources for the reconstruction of the Route 28 Interchange with Fox Chapel Road. The reconstruction of the interchange would include the replacement of the existing bridge structures that carry Route 28 over Fox Chapel Road.

The Township should also begin researching the existing structures that carry Route 28 over Fox Chapel Road to establish the structural integrity and adequacy of the structures. If structurally deficient, the Township should seek to establish a project on PennDOT's 12-year Transportation Improvement Plan to assist in the funding of any improvements at this interchange.

Even without the widening of Fox Chapel Road between the Route 28 Southbound Ramps and the Route 28 Northbound Ramps, the Township should begin planning for the relocation of Old Freeport Road to a location approximately 750 feet east of its current location. This relocation might result in a significant improvement to the operations at the intersection of Freeport Road with Fox Chapel Road as a result of removing an approach to the intersection. The closure / relocation of Old Freeport Road could result in the availability of additional and more desirable land to develop along Freeport Road between Fox Chapel Road and relocated Old Freeport Road.

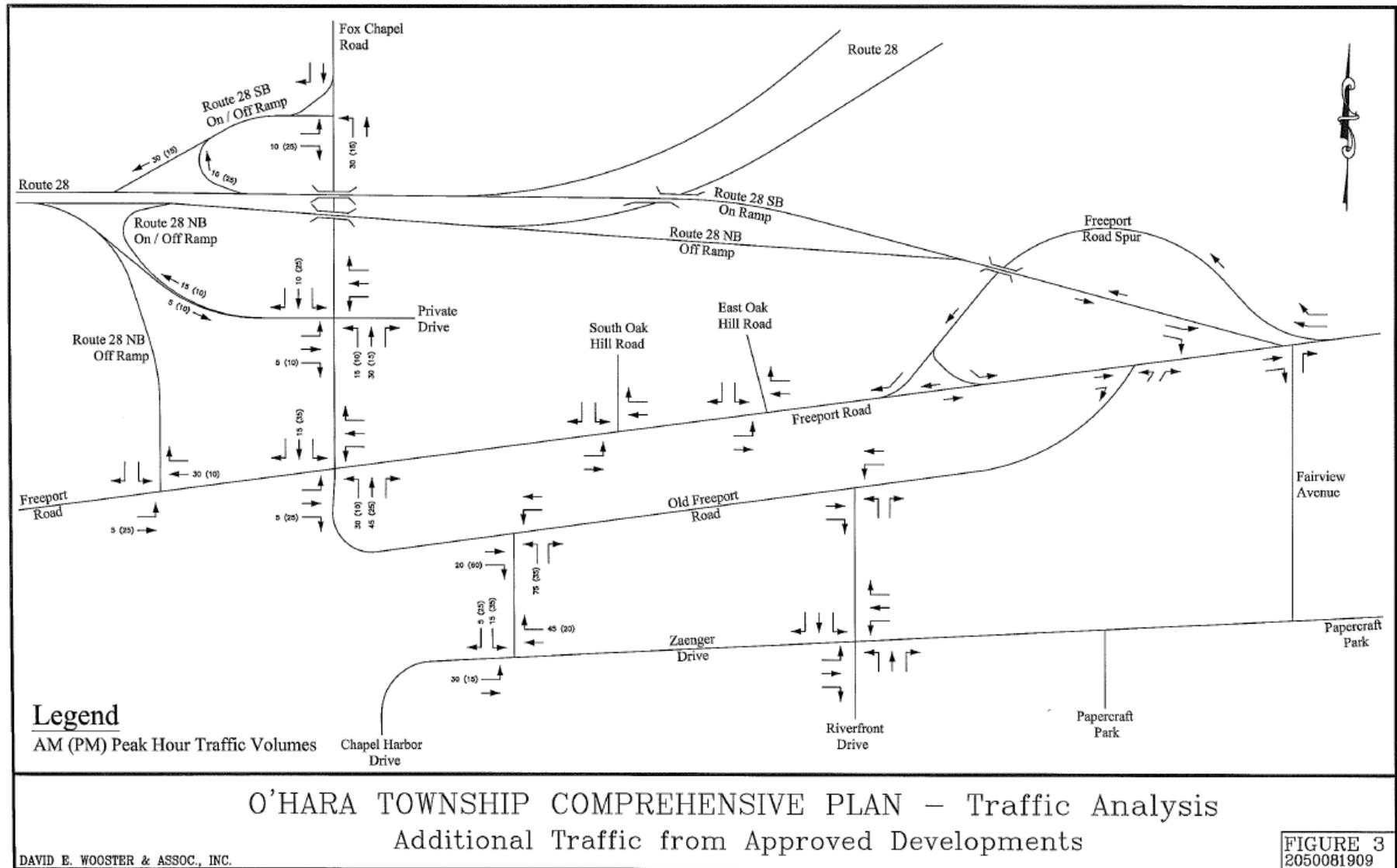


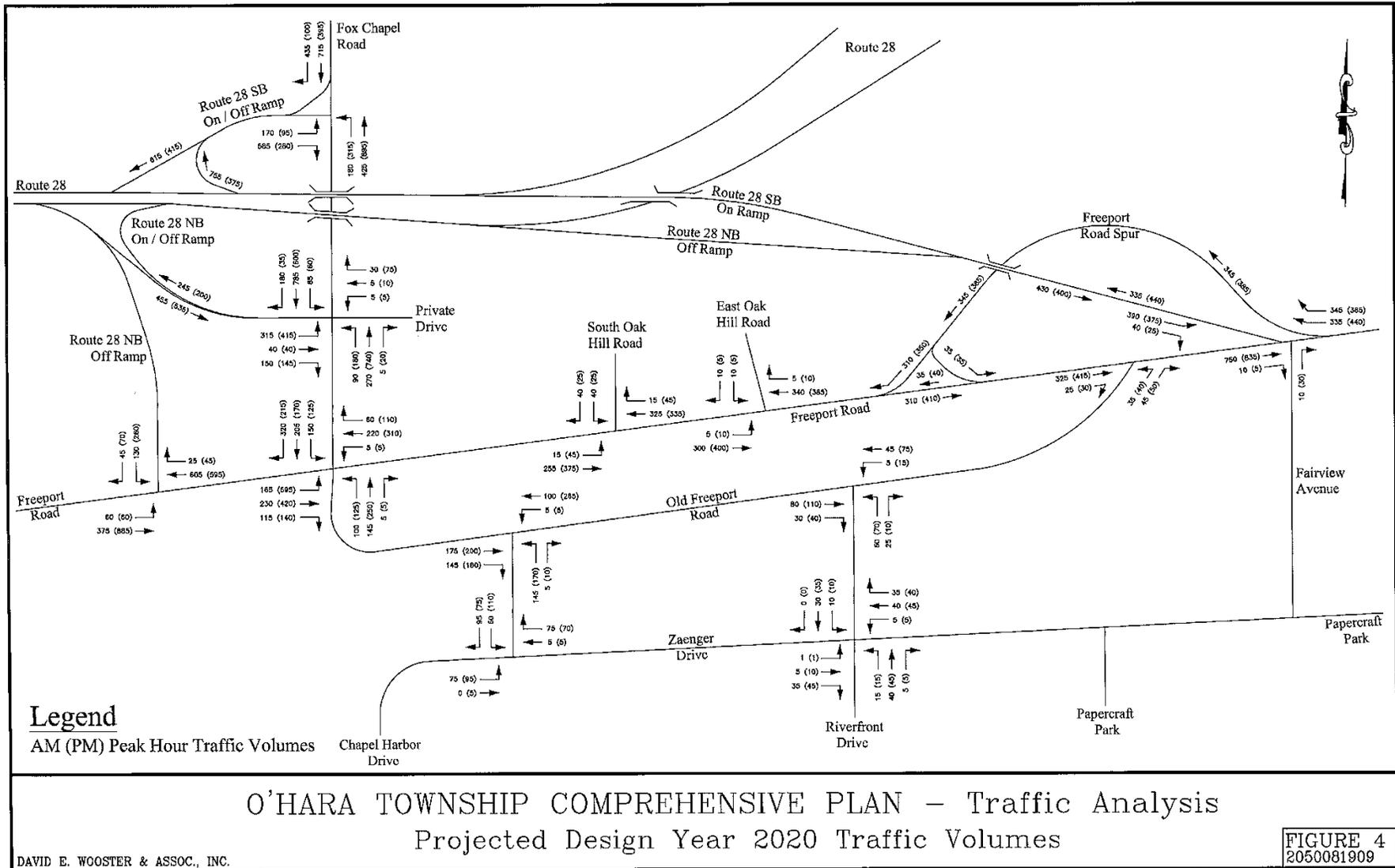


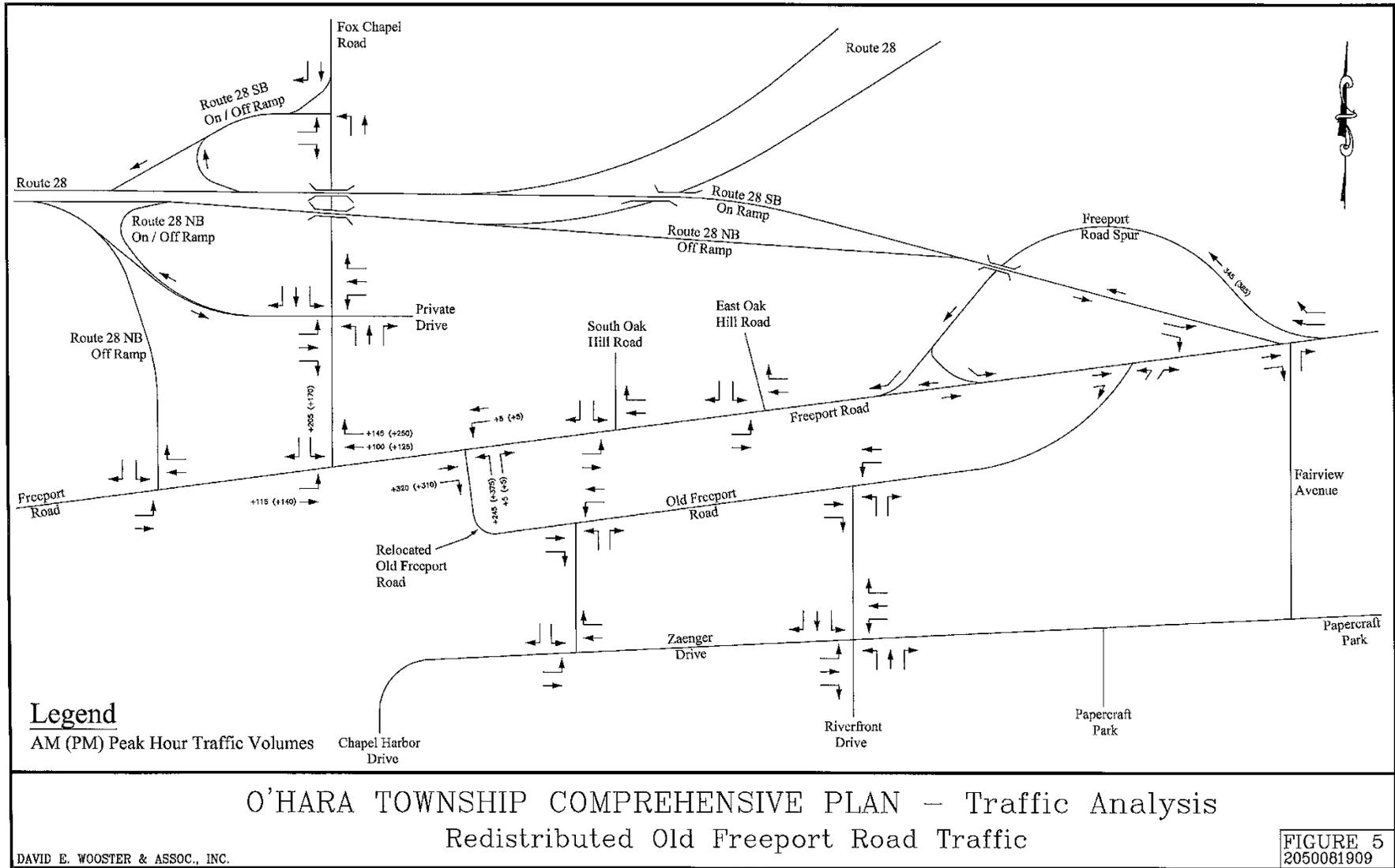
O'HARA TOWNSHIP COMPREHENSIVE PLAN – Traffic Analysis
 Projected Design Year 2020 Base Traffic Volumes

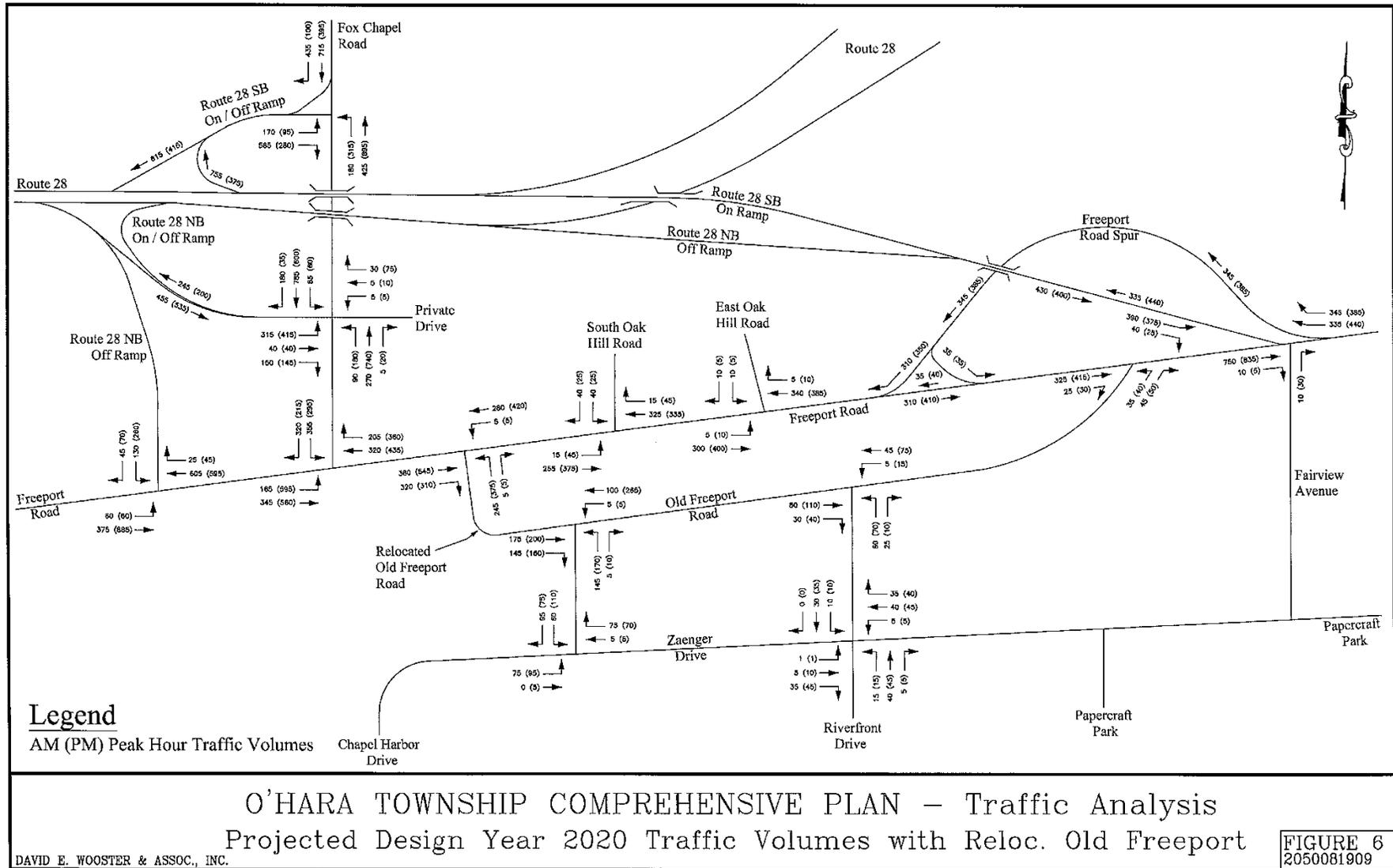
FIGURE 2
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DAVID E. WOOSTER & ASSOC., INC.









INTERGOVERNMENTAL COOPERATIVE AGREEMENT

One of the key components to improving traffic movement and circulation in the Freeport Road corridor evolved from the analysis prepared by Wooster and Associates. Although the proposed relocation of Old Freeport Road is secondary to replacing the bridge structures carrying SR 28 over the Freeport Road right-of-way in order to accommodate an additional travel lane, the scope of that work precludes an immediate solution. As operational levels-of-service at the key intersections studied are projected to decline, the proposed relocation of a segment of Old Freeport Road (as shown on the aerial included in this work element) could buy time to secure long-range funding for the major transportation improvement projects identified. In order to accomplish the planning objective this initiative aims to achieve, an Intergovernmental Cooperative Agreement between Allegheny County and O'Hara Township would need to be discussed and drafted for the vacation of a 750 linear foot segment of Old Freeport Road. All parties to this action would have to agree to criteria established in order for redevelopment to proceed as anticipated, including the installation of a signal at the proposed new intersection of Old Freeport Road with Freeport Road. A review of existing rights-of-way and a PennDOT Highway Occupancy Permit for the signalized intersection will be required. With the Township discussing the preparation of a Specific Plan for the immediately surrounding area, as authorized by Article XI, Section 1106 of the Pennsylvania Municipalities Planning Code, alternative land use options, dimensional standards, flexible development exactions, and review and approval procedures can be adopted to support the achievement of this transportation/land use goal.

SUMMARY

Chapter 7, Transportation, examines:

- Classification and character of existing roadways.
- Existing and projected deficiencies
- Projects to mitigate deficiencies.

Several unique transportation factors exist that pose opportunities and challenges to transportation and overall land use planning in O'Hara Township. Such factors include:

- Presence of a regional employment center (RIDC Park).
- SR 28 as a regional arterial.
- Commercial strip development along Freeport and Old Freeport Roads.
- North-South major collectors that bring regional traffic as well as supply access to local neighborhoods.

Classification and Character of Existing Roadways

1. The transportation network in O'Hara Township evolved from access to two (2) regional arterials, PA 28, the Allegheny Valley Expressway, and SR 1001, Freeport Road, which, in their current configuration, were constructed on the northern shore of the Allegheny River Valley during periods of growth following World War II and again during the 1960's.

2. Four (4) suburban collector roadways owned and maintained by the Commonwealth, Saxonburg Boulevard (SR 1013), Dorseyville Road (SR 1003 segment maintained by Allegheny County), Kittanning Pike (SR 1003), and Powers Run Road (SR 1009) provide access to the arterial roadways along the southern perimeter of the Township on both the eastern and western areas of O'Hara Township. These in turn provide direct access to local neighborhoods or subdivisions in O'Hara Township.
3. At present, the Township maintains 40.42 miles of streets and roads, while PennDOT maintains 22.40 miles of road and Allegheny County maintains 3.12 miles of road.
4. The Kittanning Pike and Dorseyville Road on the west and Powers Run Road on the east function as the primary residential collectors and carry a range of daily traffic between 2,000 and 6,000 vehicles.
5. In addition to these residential collector roadways, Saxonburg Boulevard in the northwestern quadrant of the Township carries traffic volumes in the 6,000 to 12,000 vehicle range along different segments. While a higher percentage of pass-through traffic is carried on this collector, Dorseyville Road which carries in the 2,000 to 6,000 vehicle trip range, provides access to residentially developed areas abutting Fox Chapel Borough. Both Field Club Ridge Road and Field Club Road in the northeast also provide access primarily to residentially developed areas and are locally owned and maintained.
6. As discussed earlier in this work element, the transportation facilities carrying the highest traffic volumes are all situated along the north shore of the Allegheny River, in the southern tier of O'Hara Township. State Route 28, or the Allegheny Valley Expressway, which follows the Allegheny River Valley, including the bend on the eastern half of the Township. Through the western and central areas of O'Hara Township this arterial roadway carries a range of between 24,000 and 33,000 thousand average vehicles daily, and is a major commuting highway.

Existing and Projected Deficiencies

The Township's Traffic Engineer was requested to analyze existing traffic movements within the Old Freeport Road/Freeport Road corridors and linking segments, in order to provide options for future transportation improvements designed to manage traffic movements. As continued development and redevelopment of the Township's commercial corridor occurs, both capacity and safety improvements are necessary.

1. Wooster and Associates utilized existing studies and also assessed the following manual turning movements between 7:00 a.m. and 9:00 a.m. and between 4:00 pm and 6:00 pm:
 - Freeport Road and Fox Chapel Road / Old Freeport Road
 - Freeport Road and Route 28 Ramps / Fairview Avenue
 - Old Freeport Road and Chapel Harbor Drive
 - Old Freeport Road and Riverfront Drive
 - Zaenger Drive and Chapel Harbor Drive

2. In addition to the manual turning movement counts, Automatic Traffic Recorders (ATRs) were installed at several locations throughout the study area. The ATRs were programmed to identify volume, class, and vehicular speeds. ATRs were installed at the following locations:
 - Freeport Road Eastbound and Westbound – east of Oak Hill Road
 - Old Freeport Road Eastbound and Westbound – east of Riverfront Drive
 - Freeport Road Spur – east of the split approach to Freeport Road
 - Freeport Road Spur – merge to Freeport Road westbound
3. Analyses show that all of the individual lane groups, intersections approaches, and overall intersections currently operate at LOS D or better (an acceptable level) during both the AM and PM peak hours. Analyses of the Design Year 2020 Conditions show that several lane groups and approaches are anticipated to degrade to LOS E as a result of background traffic growth as well as the completion of the Chapel Harbor and Yacht Club Village developments. Specifically, the following lane groups / approaches are anticipated to operate at poor or failing Levels-of-Service under Design Year 2020 Conditions:
 - Fox Chapel Road and Route 28 Southbound Ramps
 - Eastbound Approach – LOS F
 - Northbound Left Turns – LOS E
 - Fox Chapel Road and Route 28 Northbound Ramps / Retail Driveway
 - Eastbound Left Turns – LOS E
 - Freeport Road and Fox Chapel Road / Old Freeport Road
 - Southbound Left Turns – LOS E
4. The remaining study intersections are anticipated to operate at LOS C or better under Design Year 2020 Conditions.

Projects to Mitigate Deficiencies

1. The Wooster Report recommended the addition of one lane on Fox Chapel Road to the area between Fox Chapel Road and Route 28 Southbound Ramps and Fox Chapel Road and Route 28 Northbound Ramps / Retail Driveway. The addition of one lane would allow recommended dual turning lanes serving the ramps at the ends of this segment of Fox Chapel Road. The recommended widening would require replacement of the overpass bridge of Route 28. The report suggested that the Township explore State and Federal funding options.
2. The second and more immediate mitigating measure suggested is the possible relocation of Old Freeport Road to an intersecting point with Freeport Road approximately 750 feet east of the current intersection. The elimination of one approach to the Fox Chapel/Freeport Road Intersection could allow that intersection and the new intersection to function at acceptable levels of service. More importantly, abandonment of the segment of Old Freeport Road would encourage redevelopment of the adjoining strip development and may allow for streetscape improvements and limited access along Freeport Road.

Conclusions

1. As operational levels-of-service at the key intersections studied are projected to decline, the possible relocation of a segment of Old Freeport Road (as shown on the aerial included in this work element) could buy time to secure long-range funding for the major transportation improvement projects identified.
2. In order to accomplish the planning objective this initiative aims to achieve, an Intergovernmental Cooperative Agreement between Allegheny County and O'Hara Township should be discussed and prepared for the vacation of a 750 linear foot segment of Old Freeport Road. All parties to this action would have to agree to criteria established in order for redevelopment to proceed as anticipated, including the installation of a signal at the new intersection of Old Freeport Road with Freeport Road.
3. A review of existing rights-of-way and a PennDOT Highway Occupancy Permit for the signalized intersection will be required. With the Township discussing the preparation of a Specific Plan for the immediately surrounding area, as authorized by Article XI, Section 1106 of the Pennsylvania Municipalities Planning Code, alternative land use options, dimensional standards, flexible development exactions, and review and approval procedures can be adopted to support the achievement of this transportation/land use goal.