ITEM 9

MEMORANDUM

TO: TTAC

FROM: Harriet Parcells

DATE: June 7, 2010

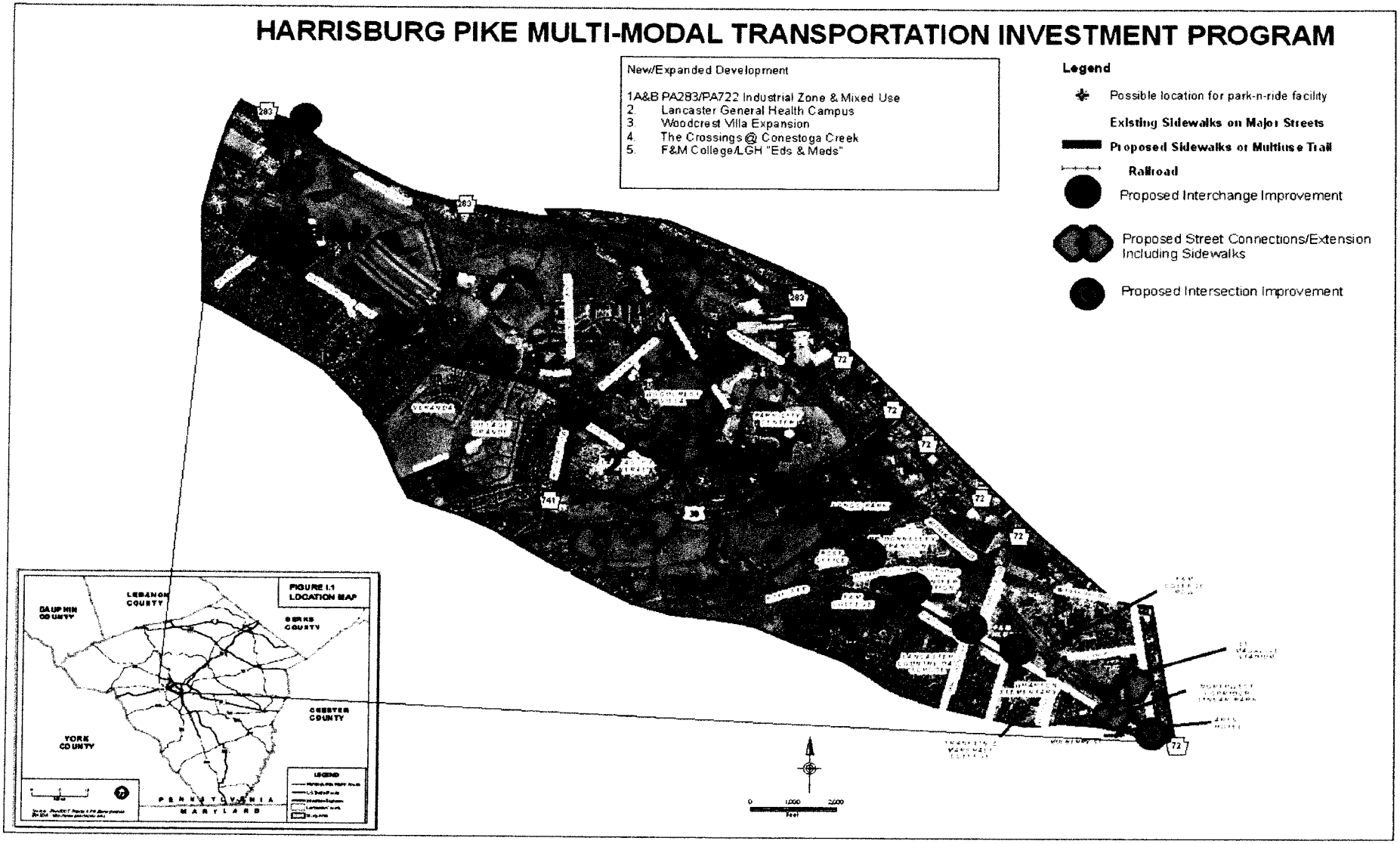
SUBJECT: TIGER II Grant Application

Background: On April 26, 2010, the federal government published a Notice of Funding Availability in the Federal Register for National Infrastructure Investments. Because the grant program is nearly identical to the original TIGER grants, they are being referred to as TIGER II grants. The TIGER II grants are funded through the FY 2010 DOT, HUD and Related Agencies Appropriations bill, not the federal stimulus legislation. A total of $600 million is available, less than half of the $1.5 billion that was available under the original TIGER grants. The TIGER II grants do not have an explicit emphasis on jobs like the original TIGER grants and focus instead, more broadly, on the project's impact on medium- and long-term benefits to the nation, metropolitan area or region. Priority, however, will go to projects with high job creation, particularly those that benefit economically distressed areas. Eligible applicants for TIGER II grants include state and local governments, MPOs, multi-state and multi-jurisdictional entities and transit agencies. Eligible projects include highway and bridge projects, transit, rail and port projects. Projects can total between $10-$200 million (lower in rural areas). A local match of 20% is required though priority will be given to projects with a strong local contribution. No more than 25% of the total grant funds ($250 million) may go to any one state. Funds for projects must be obligated by September 30, 2012, but no project completion date is specified in the grant. Pre-applications are due July 16, 2010; final applications are due August 23rd.

Action Requested: LCPC staff has reconvened the TIGER Stakeholder Committee to work on a revised grant application to implement some of the transportation improvements recommended by the Harrisburg Pike Transportation and Land Use Study. With an average grant in the original TIGER grants of $30 million and only $600 million available in TIGER II, LCPC plans to develop a lower cost application to fund some of the improvements and show how they are part of the larger vision which the MPO will continue to work to implement. The TIGER II application will draw heavily on the work and data that was gathered for the initial application.

LCPC staff seeks a recommendation from TTAC to the MPO to proceed with development of a TIGER II grant application.

HARRISBURG PIKE MULTI-MODAL TRANSPORTATION INVESTMENT PROGRAM



TIGER II - MOVING SMARTER - OPTION 1

5/12/10

Location	Description	Costs						Funding	
		PE	FD	ROW	Util.	Constr.	Total	Other	TIGER II
US 30/Harrisburg Pike Interchange	Reconstruct interchange as a Single-Point-Urban Interchange	$1,600,000	$1,350,000	$70,000	$80,000	$19,778,000	$22,878,000	$3,100,000	$19,778,000
Harrisburg Pike (Toys R US to Norfolk Southern Br.)	Widen, add turning lanes, stream relocation, signalization improvements	$580,000		$360,000	$475,000	$3,322,000	$4,737,000	$1,415,000	$3,322,000
City to Long's Park	Provide Bike/Ped. Facility	$80,000	$100,000	$50,000	$10,000	$200,000	$440,000	$240,000	$200,000
Harrisburg Pike near College Ave. and Charlotte St.	Connect Liberty Street and College Avenue; & Charlotte St. to Stadium D	$250,000				$9,300,000	$9,550,000	$2,050,000	$7,500,000

TIGER II - MOVING SMARTER - OPTION 2

5/11/2010

Location	Description	Costs						Funding	
		PE	FD	ROW	Util.	Constr.	Total	TIGER II	Other*
State Road/Yellow Goose Road Intersection	Add northbound through lane on State Road Add second left-turn lane on Yellow Goose Rd	$100,000	$150,000	$15,000	$50,000	$1,000,000	$1,315,000	$1,315,000	
Harrisburg Pike/State Road Intersection	Remove connector roadway and add a westbound right-turn lane on Harrisburg P	$100,000	$120,000	$5,000	$45,000	$700,000	$970,000	$970,000	
Harrisburg Pike/PA 741 Intersection	Add a westbound through lane on Harrisburg Pike Add second through, second left-turn lanes in both directions on PA 741	$150,000	$250,000	$250,000	$100,000	$2,500,000	$3,250,000	$3,250,000	
Harrisburg Pike/Good Drive Intersection	Add right and left-turn lanes on Good Drive Add second westbound left-turn lane on Harrisburg Pike	$120,000	$250,000	$30,000	$120,000	$800,000	$1,320,000	$1,320,000	
Harrisburg Pike/Plaza Blvd Intersection	Add second eastbound left-turn lane on Harrisburg Pike Add second southbound left-turn lane on Plaza Blvd						$800,000	$800,000	
Harrisburg Pike/South Mall Entrance Intersection	Add second southbound left-turn lane on South Mall Drive						$800,000	$800,000	
Harrisburg Pike/LCSWMA Drive Intersection	Add second through lane in both directions on Harrisburg Pike Add westbound left-turn lane on Harrisburg Pike	$100,000	$170,000	$50,000	$300,000	$1,000,000	$1,620,000	$1,620,000	
Harrisburg Pike/Dillerville Road Intersection	Add northbound through lane on President Avenue Add southbound right-turn lane and through lane on Dillerville Road	$180,000	$150,000	$160,000	$45,000	$900,000	$1,435,000	$0	$1,435,000
Harrisburg Pike/Race Avenue Intersection	Add eastbound right-turn lane on Harrisburg Pike	$80,000	$130,000	$500,000	$20,000	$400,000	$1,130,000	$1,130,000	
Harrisburg Pike/Prince Street Intersection	Add eastbound through lane on Harrisburg Pike Add southbound right-turn lane on Prince Street	$150,000	$200,000	$500,000	$100,000	$800,000	$1,750,000	$1,750,000	
Good Drive	Connect Good Drive to PA 741 and to Plaza Boulevard	$250,000	$300,000	$250,000	$100,000	$5,000,000	$5,900,000	$5,900,000	
Farmingdale Road/Bennett Avenue	Connect from Farmingdale Road, to Good Drive, to Existing Bennett Avenue	$351,522		$240,000		$2,443,866	$3,035,388	$3,035,388	
Harrisburg Pike near College Ave. and Charlotte St	Connect Liberty Street and College Avenue; & Charlotte St. to Stadium Dr. Add eastbound right-turn lane on Harrisburg Pike	$250,000				$9,300,000	$9,550,000	$7,500,000	$2,050,000
PA 741 East to Prince Street[1]	Coordinate and refine traffic signals						$200,000	$0	$200,000
Harrisburg Pike (PA 741 to Park City Mall)[1]	Resurface		$20,000		$10,000	$845,000	$875,000	$0	$875,000
Various locations	Two park-and-ride facilities	$100,000	$100,000	$40,000	$0	$600,000	$840,000	$840,000	
Entire Corridor	Mass transit amenities including bus shelters, bicycle racks, benches, etc.	$25,000	$25,000	$0	$0	$400,000	$450,000	$450,000	
Dillerville Road west to Long's Park	Complete sidewalk system	$80,000	$100,000	$10,000	$20,000	$200,000	$410,000	$410,000	
City to Long's Park	Provide Bike/Ped. Facility	$80,000	$100,000	$50,000	$10,000	$200,000	$440,000	$440,000	
Long's Park to PA 741	Add a sidewalk and/or multiuse trail or circulation system	$100,000	$100,000	$20,000	$10,000	$300,000	$530,000	$530,000	
James Street Improvement District	Include sidewalk along with Mulberry and Liberty Street extensions	$0	$0	$0	$0	$100,000	$100,000	$100,000	
PA 741 to State Road	Add a sidewalk/multiuse trail system	$80,000	$100,000	$50,000	$40,000	$300,000	$570,000	$570,000	
Plaza Boulevard	Add sidewalk system from Harrisburg Pike to shopping areas	$25,000	$25,000	$0	$0	$50,000	$100,000	$100,000	
Dillerville Road	Connect sidewalk from Harrisburg Pike to Manheim Pike	$40,000	$20,000	$0	$10,000	$50,000	$120,000	$120,000	
PA 741 to Dillerville Road	Complete planned Conestoga Greenway trail system	$100,000	$50,000	$25,000	$0	$700,000	$875,000	$875,000	
Near PA 741	Add sidewalks along Good Drive, Spring Valley Road and PA 741	$50,000	$25,000	$10,000	$20,000	$200,000	$305,000	$305,000	
Entire Corridor	Add pedestrian lighting along existing and future pedestrian paths	$50,000	$100,000	$0	$0	$900,000	$1,050,000	$1,050,000	
	TOTAL						$39,740,388	$35,180,388	$4,560,000

*Some funding is federal

Project common to Option 1 & 2

- Provide dual right turn lanes on the Route 30 East Off-ramp approach.
- Signalize the right turn movement from the Route 30 East Off-ramp to eastbound Harrisburg Pike as part of the SPUI.
- Maintain the free-flow right turn from the Route 30 West Off-ramp to Park City Center driveway.
- Remove traffic signals at existing ramp intersections with Harrisburg Pike.
- In order to accommodate the lanes and ramps for the SPUI, widen the existing bridge structure that carries Harrisburg Pike over Route 30.

Harrisburg Pike & Farmingdale Road

- Provide a separate eastbound Harrisburg Pike right turn lane. Maximize the length of the right turn lane based on distance between Route 30 East Off-ramp and Farmingdale Road.

Harrisburg Pike & Toys-R-Us Driveway

- Restripe the northbound driveway approach to provide an exclusive left turn lane and a shared left/right turn lane.
- Optimize signal timings.

Harrisburg Pike & Long's Park Driveway/Conestoga Creek Boulevard

- Provide northbound site driveway approach with a left turn lane, a shared left/through lane, and a right turn lane.
- Provide a separate westbound Harrisburg Pike left turn lane.
- Provide a separate eastbound Harrisburg Pike right turn lane.
- Provide additional eastbound and westbound through lanes on Harrisburg Pike.
- Provide a pedestrian crosswalk for Harrisburg Pike on the eastern side of the intersection with Conestoga Creek Boulevard and the Long's Park Driveway.
- Modify traffic signalization to accommodate widened Harrisburg Pike cross section, Conestoga Creek Boulevard, and pedestrian signalization per current standards.

Harrisburg Pike & Post Office Driveway/Donnelley Driveway

- Provide a 2nd eastbound Harrisburg Pike though lane; taper back to one lane east of the signal. This will require modification of the Harrisburg Pike lanes under the Norfolk Southern railroad bridge, where there is approximately 58 feet of available width between the two abutments.
- Provide a 2nd westbound Harrisburg Pike though lane, which may begin just west of the Norfolk Southern railroad bridge.
- Modify traffic signalization due to widened Harrisburg Pike cross section.

Harrisburg Pike & Lara Drive

- Optimize signal timings.

Harrisburg Pike & Dillerville Road/President Avenue

- Provide a separate eastbound Harrisburg Pike right turn lane.
- Provide a separate southbound Dillerville Road right turn lane.
- Extend existing southbound left turn lane approximately 10 feet.
- Extend existing northbound left turn lane approximately 25 feet.
- Convert eastbound and westbound Harrisburg Pike left turns from protected/prohibited to protected/permitted phasing. It is noted that this signal modification is subject to discussion with PennDOT to determine the feasibility for modifying the signal phasing.
- Optimize signal timings.

Farmingdale Road & Site Driveway

- Provide a left turn lane on southbound Farmingdale Road approaching the site driveway, with a bay length of 100 feet and tapers according to current AASHTO design standards.
- Provide a right turn taper on northbound Farmingdale Road approaching the proposed site driveway.
- Provide additional width for the entering lane of the site driveway to account for entering left turns being made from a downgrade on southbound Farmingdale Road. The driveway radius for the entering right turn and the offset for the right-turn taper will provide some of this additional width.
- Provide acceptable sight distances at this intersection per AASHTO safe stopping sight distance standards.
- Provide shoulder widening on Farmingdale Road between Harrisburg Pike and the proposed site driveway to accommodate additional traffic along this segment of the road. The extent of the shoulder widening will need to be further investigated with Manheim Township.

Farmingdale Road & Oreville Road

- The post-development levels of service at this intersection comply with the requirements of Section 2319.2.Q(i) of The Zoning Ordinance of Manheim Township. Therefore, no improvements are recommended.

Good Drive & Oreville Road

- Signalize the intersection. Please note, this improvement is subject to review by East Hempfield Township, since the Township must be the applicant to PennDOT to install the traffic signal equipment at this intersection.

Manheim Pike & Route 30 East off-ramp

- Optimize signal timings.

Manheim Pike & Route 30 West on-ramp

- Channelize the existing Manheim Pike right turn lane at its intersection with the Route 30 West on-ramp.
- Convert Manheim Pike left turn phasing from protected/prohibited phasing to protected/permitted phasing. It is noted that this signal modification is subject to discussion with PennDOT to determine the feasibility for modifying the signal phasing.
- Optimize signal timings.

Harrisburg Pike & Rohrerstown Road/McGovernville Road (Route 741)

- Using the model developed for the Lancaster County Transportation Authority's Harrisburg Pike corridor signal project, re-optimize the signal timings to include traffic generated by The Crossings at Conestoga Creek.

Rohrerstown Road (Route 741) & Oreville Road

- No improvements are recommended.

Good Drive & Spring Valley Road

- It is anticipated that this intersection will be signalized by others prior to the opening of the subject development. No further improvements are recommended.

Marietta Avenue & Farmingdale Road

- For the intersection of Farmingdale Road and Marietta Avenue, the analysis indicates that the STOP-controlled southbound Farmingdale Road approach lane will operate at LOS F in the weekday evening peak hour under 2020 base ("no-build") conditions. The addition of the Crossings at Conestoga Creek traffic to this already congested approach will increase the delays further.

  In order to address the congested conditions, a number of alternatives for this intersection have been considered, including restricting the left turn from southbound Farmingdale Road to eastbound Marietta Avenue during the weekday evening peak period (4:00-6:00 p.m.), installing a traffic signal, or closing Farmingdale Road in the vicinity of the Norfolk Southern crossing.

  Any alternative configuration of Farmingdale Road will be subject to review and approval by East Hempfield Township. The Applicant has begun discussions with East Hempfield Township regarding Farmingdale Road and this intersection. Since this intersection was not part of Manheim Township's approved study area, the

criteria established in Section 2319.2.Q(i) of The Zoning Ordinance of Manheim Township pertaining to level of service are not applicable, and no improvements are required as part of the Conditional Use approval. This intersection is included in the study area for the Traffic Impact Study that will be submitted to PennDOT.

Harrisburg Avenue & Race Avenue

- Using the model developed for the Lancaster County Transportation Authority's Harrisburg Pike corridor signal project, re-optimize the signal timings to include traffic generated by The Crossings at Conestoga Creek.

Harrisburg Avenue & College Avenue

- Using the model developed for the Lancaster County Transportation Authority's Harrisburg Pike corridor signal project, re-optimize the signal timings to include traffic generated by The Crossings at Conestoga Creek.

Harrisburg Avenue & Charlotte Street

- No improvements are recommended.

Harrisburg Avenue & Mulberry Street

- It is anticipated that this intersection will be signalized by others prior to the opening of the subject development. No further improvements are recommended.

6. With the recommended improvements at the Route 30/Harrisburg Pike interchange, there will be an average overall reduction in delay of 65% at this interchange during the peak hours analyzed. This greatly exceeds the requirement of Section 2319.2.Q(ii) of The Zoning Ordinance of Manheim Township.

7. With the recommended improvements at the Route 30/Manheim Pike interchange, there will be an average overall reduction in delay of 33% at this interchange during the peak hours analyzed. This meets the requirement of Section 2319.2.Q(ii) of The Zoning Ordinance of Manheim Township.

8. With the recommended improvements at the remaining study area intersections, the design year pre-development levels of service will be maintained if they are C or D, will not deteriorate to worse than C if they are currently A or B, and will improve to D if they are E or F, except for locations where LOS D cannot be attained, then the design year pre-development LOS will be maintained without an overall increase in delay for any such intersection. This meets the requirements of Section 2319.2.Q(i) of The Zoning Ordinance of Manheim Township, with the exceptions noted in the Ordinance Compliance section of this report.

9. A roadway improvement plan has been presented to the Township, as required by Section 2319.2.Q of The Zoning Ordinance of Manheim Township. A copy of the roadway improvement plan (last revised May 1, 2007) is included in **Appendix I.**

10. The levels of service for the study area intersections have been summarized in matrix form. **Table i** details the design year levels of service for each lane group at the study area intersections. The summary has been prepared outlining existing, base and projected conditions. Base and projected conditions represent the pre-development and post-development conditions, respectively.

11. Based on the analyses conducted for this Traffic Impact Study, TPD has concluded the following:

- The roadway improvements associated with the proposed Crossings at Conestoga Creek development will address existing congestion along the Harrisburg Pike corridor, including the interchange with Route 30. The proposed Single Point Urban Interchange (SPUI) will reduce delay at the interchange by an average of 65% during the peak hours analyzed. The SPUI also will address the queuing problems on the Route 30 off-ramps at the Harrisburg Pike interchange, which regularly back up into the vicinity of the Route 30 mainline under existing conditions.

- The SPUI will provide dual left-turning movements for all left turns exiting or entering Route 30 at the Harrisburg Pike interchange. The entering left turns (from Harrisburg Pike to the Route 30 ramps) and exiting left turns (from the Route 30 ramps to Harrisburg Pike) are given their own phases of the traffic signal, thus promoting safety as well as enhancing capacity.

- The SPUI will reduce existing queuing on eastbound Harrisburg Pike from the interchange area back towards the Park City signalized intersections. The excessive delays that are being experienced under existing conditions will be greatly reduced through the implementation of the SPUI.

- With construction of the proposed development and the associated roadway improvements, the number of signalized intersections along Harrisburg Pike will be reduced since the Route 30 interchange will operate with one signalized intersection rather than two, and the distance between the interchange signalization and the adjacent signals along the Harrisburg Pike corridor will increase. Additionally, access to the proposed development will be provided via existing signalized intersections on Harrisburg Pike.

- The proposed intersection improvements and traffic signal interconnection along Harrisburg Pike will improve traffic flow through the corridor, which has been identified as the 2nd most Congested Corridor in Lancaster County in the 2005 Management Systems Report for the County's Congestion Management System.

- The Developer has responded to Manheim Township and City of Lancaster comments on the plan by further investigating the Harrisburg Pike underpass of the Norfolk Southern railroad. The width from abutment to abutment under the railroad bridge was measured by TPD at 58 feet. Based on the conceptual layouts, we believe it is feasible to provide four lanes under the bridge. An alternative treatment could be implemented which would consist of three lanes under the bridge, and beginning the additional westbound lane just after the bridge. Regardless of the final determination of the layout under the bridge, it is proposed to provide a five-lane cross-section at the intersection of Harrisburg Pike & U.S. Post Office driveway/Donnelley driveway, which is currently a congested intersection with a three-lane cross-section. This improvement will greatly enhance the flow of traffic along Harrisburg Pike in the vicinity of this intersection and the Norfolk Southern bridge.

- The Developer has responded to Manheim Township and City of Lancaster comments on the plan by further investigating the intersection of Harrisburg Pike & Dillerville Road/President Avenue. The improvements identified in this study for this intersection appear to be feasible given the constraints of nearby businesses. These improvements will enhance the capacity of the intersection (reduced delays for motorists), and should improve the safety of the intersection by providing auxiliary lanes for the eastbound and southbound right-turning movements.
- The Developer has met with representatives of East Hempfield Township to discuss their concern regarding traffic as it relates to development of the subject site. It is anticipated that there will be additional discussions with East Hempfield Township in this regard.
- As detailed in Table 9 of the TIS, the proposed improvements associated with the TCCC development will maintain or in many cases improve Intersection Levels of Service for the study area intersections.
- With the development and the associated roadway improvements, and considering the overall operations at all study area intersections, the queuing in the study area will be greatly improved, relative to the future condition without the development.