## 2006

## InterCounty Relief Route

## Schuylkill - East Pikeland - Phoenixville - Upper Providence



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Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.


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

In 2003, the Delaware Valley Regional Planning Commission completed the Phoenixville Area Intermodal Transportation Study (PAITs). The study was prepared in collaboration with Chester and Montgomery counties and the involved municipalities to comprehensively address regional development and travel in the Greater Phoenixville Area.

The PAITs study process culminated with a unanimously supported multi-modal, Mobility Improvement Plan to serve area-wide transportation needs to the Year 2025. One of the Plan's most important recommendations was a highway concept which benefitted the region and mimicked the alignment of the Phoenixville Spur, including a new bridge over the Schuylkill River, but which would be provided in a more contextsensitive (i.e., neighborhood friendly) manner. This follow-up study of that "InterCounty Relief Route" was deemed necessary to investigate the potential relief route's alignment in closer detail, and identify opportunities and constraints along the alignment-to offer a greater level of comfort to the municipal decision-makers.

Technical and committee work was performed with the direct participation of the municipalities and the counties which:

- Identified a preferred alignment for the relief route
- Evaluated traffic safety conditions in the study corridor
- Performed updated Year 2030 travel modeling exercises with consideration for future land use visions portrayed in the Phoenixville Region Comprehensive Plan, those proffered by Upper Providence Township, and those contained in DVRPC's official set of regional population and employment forecasts
- Prepared an environmental screening of the preferred highway alignment
- Evaluated the potential for reusing available Phoenixville Spur right-of-way for alternate recreational / multi-use trail use

The findings of the ICRR's Year 2030 travel simulation and traffic analyses indicated that:

1. Traffic volumes using existing roadways along the ICRR's proposed alignment which lead to the new Schuylkill River Bridge crossing (including Township Line Road, Filmore Street and PA 29 below Black Rock Road) would rise substantially-with 10,600 vehicles per day forecasted to cross the bridge.
2. Traffic volume relief would be experienced on Bridge Street through the Borough and on PA 29 through Mont Clare if the ICRR were constructed.
3. Overall study area traffic congestion would be less with the ICRR, and the supporting traffic improvements assumed in the study's "Recommended Scenario."
4. The ICRR's travel forecasting work-which accounted for updated land use visions of the study area municipalities-suggests that the multi-modal, Mobility Improvement Plan, and Management Measures, recommended in the parent Phoenixville Area Intermodal Transportation Study remain valid as a guide for future transportation planning and investment decision-making in the study area.

The majority of roadways comprising the relief route's alignment are and will remain two lanes. As such, the environmental screening indicated that for most of its alignment the potential impacts of the ICRR upon the natural and human environment would be minimal. But:

1. The ICRR's potential effects upon the natural and human environment could have significant impacts in the vicinity of proposed new sections of the facility, particularly in the vicinity of the Ravine Preservation Area. Here a new bridge over the Schuylkill River and roadway connecting PA 113 and PA 29 are proposed as part of the preferred alignment. Strong engineering and permitting challenges to "clear" the project can be expected.
2. Opportunities to provide the new bridge crossing of the Schuylkill River and roadway connection at locations other than within the Phoenixville Spur right-ofway, and significantly apart from the ravine area (either up or downstream) have been sharply limited or lost to land development

Based on the presented analyses and findings of the InterCounty Relief Route study...

It was the conclusion of the Study Steering Committee that: a new InterCounty Relief Route bridge and roadway connection between PA 113, in Phoenixville Borough, and PA 29, in Upper Providence Township, is not unanimously supported by the study area municipalities at this time.

Given the Study Steering Committee's conclusion, the following transportation related recommendations become very important, as the Greater Phoenixville Area seeks to accommodate regional growth with less infrastructure improvement planned for its future.

1. Phoenixville and Upper Providence should preserve the available Phoenixville

Spur right-of-way in the possibility that a bridge, roadway and trail connection between PA 113 and PA 29 may someday be supported to aid regional traffic conditions.
2. The Phoenixville Area Intermodal Transportation Study's recommended multimodal, Mobility Improvement Plan should be regularly monitored and amended, and active projects advanced for implementation.
3. Smaller scale improvements are generally more feasible to implement, and in combination(s) can serve an important role in improving study area travel conditions and staving-off the effects of regional growth. Examples identified through this effort included:

- The extension of Filmore Street across the north side of Phoenixville - to serve a valuable cross-town function on the Borough's north side, provide local traffic relief in the Borough, and offer an efficient alternate traffic route during the replacement of the Gay Street Bridge
- The direct, at-grade alignment of Township Line Road with PA 23 - to serve as a gateway to the Borough's northern relief route and promote more orderly traffic flow along PA 23
- Bottleneck improvements at the Jacob and Bridge Streets intersection in Mont Clare - to ameliorate a local congestion point and extend the functionality of the of the existing PA 29 / Schuylkill River bridge crossing

These projects are being pursued and advanced independently by Phoenixville, East Pikeland, and Upper Providence, and should be added to the area-wide Mobility Improvement Plan.
4. The Mobility Improvement Plan should be updated for the staged development of multi-use trails providing hiking, biking, and recreational use within the designated right-of-way of the former Phoenixville Spur highway.
5. Continued active participation in the programs of the region's TMAs (e.g., the Transportation Management Association of Chester County and the Greater Valley Forge Transportation Management Association) is recommended to extend the useful life of the present physical plant and serviceability of capital transportation investments implemented in the study area. Furthermore, the TMAs provide advocacy platforms from which to promote the regional projects remaining on the Mobility Improvement Plan.

## InTRODUCTION

The Greater Phoenixville Area is currently experiencing high levels of traffic congestion. Traffic mobility in Phoenixville Borough and its neighboring municipalities is deficient because current traffic demand exceeds the ability of the highway network to carry the volume efficiently. The region anticipates substantial land development activity that will exacerbate traffic problems if the supply of transportation facilities is not adequately addressed.

Attempts to address the area's traffic situation extend back to the 1960's (the Phoenixville Spur) and the 1980's (the Chester-Montgomery County Connector). Each of these highway


Traffic near Produce Junction in Mont Clare. The ICRR would help alleviate congestion on Bridge Street. projects sought to relieve traffic in Phoenixville's downtown and foster area-wide mobility. Both were judged as being overly invasive to the communities through which they traveled (a multi-lane freeway in the case of the former, and a multi-lane arterial highway in the latter instance). In turn, each proposal met defeat.

In still a later effort to comprehensively address and plan for the Phoenixville region's future transportation needs, the Delaware Valley Regional Planning Commission (DVRPC) completed the Phoenixville Area Intermodal Transportation Study ${ }^{1}$ (PAITs), at the behest of the Chester and Montgomery County Planning Commissions and with the direct participation of elected or appointed representatives of the affected municipalities. The study process generated multi-modal transportation improvement suggestions in a collaborative fashion, evaluated the supported conceptual projects, and culminated with a unanimously supported multi-modal Mobility Improvement Plan to serve area-wide transportation needs to the Year 2025.

One of the PAITs plan's most important recommendations was a highway concept which mimicked the alignment of its predecessors, but which would be provided in a more context-sensitive manner. The recommended improvement concept ${ }^{2}$ called for a two lane (typical) circumferential highway alignment-around the Phoenixville business district to connect to US 422 at the PA 29 interchange, in Upper Providence Township. The alignment would be comprised principally of existing roadways, require minor

[^0]roadway extensions on Township Line at PA 23 and at both ends of Filmore Street across the Borough's north side, a new two lane bridge spanning the Schuylkill River between PA 113 and PA 29, and widening along PA 29 between the new roadway and the US 422 interchange.

The identified traffic benefits of the Relief Route within the PAITs' plan were reduced traffic on Bridge Street through the Borough and on PA 29 through Mont Clare in Upper Providence, reduced traffic on PA 23 east of the proposed Relief Route through East Pikeland Township, Phoenixville, Schuylkill Township, and the Valley Forge National Historical Park. Further, the proposed roadway would help to distribute traffic generated by the French Creek Center development, a major multi-use land development project which will enlarge the Phoenixville Business District's residential and commercial base.

In 2004, DVRPC was requested to prepare a follow-up investigation to study the recommended relief route's alignment in closer detail to better identify opportunities and constraints and offer a greater level of comfort to the municipal decision-makers. As part of the follow-up study, DVRPC staff was directed to also consider the likely effects of alternate alignments. Suggested alignment options ranged from choosing alternate local street alignments with potentially less community impact to the original alignment of the Chester-Montgomery County Connector highway, and possibly the original grade separated Phoenixville Spur (each of which is differentiated from the recommended relief route in that each are proposed to occupy an entirely separate right-of-way).

This report is a summary of the work conducted since 2004. Note that in the time frame of the current work, the regional project subject of these evaluations has been retitled to the InterCounty Relief Route (ICRR). ${ }^{3}$

[^1]
## Scope of Work

To accomplish the ICRR study work program, DVRPC staff worked in close collaboration with our county (Chester and Montgomery County Planning Commissions) and municipal (Schuylkill Township, East Pikeland Township, Phoenixville Borough and Upper Providence Township) planning partners, to address the following objectives:

- Determine and evaluate viable alternate alignment(s), including a NoBuild option
- Evaluate current traffic volume and safety conditions in the study corridor
- Perform travel modeling exercises as necessary to update traffic forecasts to coincide with the No-Build option, the preferred ICRR alignment, and with on-going regional planning activities
- Prepare an environmental screening of the highway alignment(s) to identify the project's potential effects on the natural and human environment
- Evaluate the potential for reusing available Phoenixville Spur right-of-way, not required by the preferred alignment, for alternate recreational / multiuse trail use


## Alignment Options and Conceptual Improvement Proposal

At the initial Steering Committee Meeting, several preliminary alignment proposals were presented and discussed, including: the Northern Relief Route alignment as recommended in PAITs, an at-grade multi-lane Chester-Montgomery County Connector, a grade separated Phoenixville Spur freeway alignment (with an eastern terminus at PA 29, or US 422), alignment options identified by Phoenixville Planning Commission member Charles Berger, a potential new interchange at PA 113 and US 422, and the do-nothing or No-Build alternative.

As a result of the discussions, consensus was reached on the concept, and the preferred Build alignment for detailed evaluation was selected, as shown on Figure 1.

The preferred ICRR alignment follows Township Line Road northward from PA 113 in East Pikeland, crosses PA 23 at a new consolidated at-grade intersection, to a new extension of Filmore Street. The route then travels eastward along Filmore Street to PA 113. A new two-lane bridge is proposed to provide a river crossing and carry traffic between PA 113 in the Borough, and PA 29 in Upper Providence Township. The bridge and roadway in this segment would occupy right-of-way originally proposed to accommodate the Phoenixville Spur and would also contain a multi-use trail adjacent to its cartway. The ICRR route then follows PA 29 northward to the US 422 interchange. The proposed ICRR alignment differs from the PAITs' recommendation in that the currently favored western terminus connects at PA 113 and Township Line Road (involving Schuylkill, East Pikeland and Phoenixville), versus PA 23 at Mowere Road in East Pikeland.

The dashed lines on Figure 1 indicate where roadway extensions are supposed, which include:

- Township Line Road (south) - up and over the French Creek to meet and match PA 23 at the Township


The Filmore Street extension between Dayton Street and PA 113 is now open. Line (north) intersection, at-grade

- Filmore Street (west) - direct to Township Line, from the location of its northward bend toward Spring City (note that within the past year Filmore Street, on the east end, was extended between Dayton Street and PA 113)
- Between PA 113 and PA 29 - via a new roadway and bridge over the Schuylkill River (within right-of-way which had been associated with the Phoenixville Spur project)

Existing streets and roadways which would comprise the ICRR are presently two lanes wide (i.e., one lane in each direction), and would generally remain that way with the ICRR. The extensions and bridges (listed above) are also proposed as two lane roadways. PA 29 would be widened from two lanes to four lanes between the ICRR and Black Rock Road (i.e., add one lane in each direction), and widened to six lanes (i.e., three lanes in each direction, or one additional lane each way) from Black Rock Road into the US 422 interchange to match the cross section being provided in association with the Providence Town Center development. It is also envisioned that a direct ramp from northbound PA 29 to eastbound US 422 would be constructed as part of the ICRR concept.

To facilitate traffic movement along the ICRR's path, auxiliary turning lanes are envisioned at major intersections, and additional width or indents would be provided to accommodate on-street parking where it exists or has potential to exist. Methods of traffic control at most intersections would generally remain unaffected. STOP-signs would most likely be sufficient at new intersections formed with roadway extensions. New or upgraded traffic signals would likely be required at major intersections.

Figure A1 in the Appendix contains conceptual illustrations of lane configurations and traffic control at key intersections along the ICRR, assuming current and studied future conditions.
FIGURE 1: INTERCOUNTY RELIEF ROUTE ALIGNMENT
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## Traffic Data

Current traffic volumes in the study area are illustrated in Figure 2. The volumes are annual average daily traffic volumes (AADTs) collected between 1999 and 2005. Approximately 23 new counts were taken in 2004 and 2005 to update the DVRPC database within the study area. The volumes range from $50,000-55,000$ vehicles per day (vpd) on US 422 to $10,000-27,000$ vpd on PA 23, PA 113, and PA 29. Most of the collector streets comprising of the ICRR's alignment range from 2,000 to $7,000 \mathrm{vpd}$. The traffic counts were used to establish the current baseline of traffic demands in the study area, and to calibrate the travel demand


The 2000 TAZ structure in East Pikeland was split to create a more refined model. forecasting model.

Three travel simulations were conducted for this study using DVRPC's regional travel demand simulation model. These include the calibrated 2000 Base Year Scenario (i.e., current conditions), the Year 2030 Committed Scenario (e.g., the do-nothing, or No-Build alternative), and the Year 2030 Recommended Scenario (i.e., the Build condition). For each future year model run, traffic forecasts were prepared and system-wide performance measures were calculated as a basis for judging changes from current conditions and between alternative futures.

## Year 2000 Base Conditions

The first step in preparing the InterCounty Relief Route travel simulation involved updating, focusing, and calibrating the regional model to reflect 2000 demographic and transportation conditions within the study area. The 2000 Base Year model for the ICRR is based on the 1997 Phoenixville Area Intermodal Transportation Study's Transportation Analysis Zone (TAZ) and facilities network structure. The updated model, however, is focused more directly on the Borough of Phoenixville, and portions of East Pikeland, Schuylkill, and Upper Providence in terms of its demographic data inputs and calibration.

To focus the study area model, the initial zone structure was spilt into 13 additional zones, reflecting changes from the 2000 Census, and increasing the number of TAZs in the focused study area from 18 to 31 . These zone splits, supported by a denser highway network, contribute to create a more refined model to mimic actual traffic conditions. The modeled highway network was updated by adding new links to
replicate the study area's highway system in the year 2000, and official 2000 Census data was used for the population and employment inputs to the study TAZ structure.

Intersection control and lane configurations existing at key locations along the ICRR are shown in Figure A1.

## Year 2030 Socioeconomic Inputs

At the Study Steering Committee's request, DVRPC staff reviewed and considered the future land use plan portrayed in the Phoenixville Region Comprehensive Plan (prepared by Kise Straw \& Kolodner) as the basis for estimating the levels and spread of population and employment growth in the ICRR study area. The comprehensive plan's study area included: Phoenixville Borough, East Pikeland, Schuylkill, Charlestown, East Vincent, and West Vincent Townships. Population and employment data were estimated and spatially assigned to the appropriate TAZ to create a future model with a basis in relationship to the comprehensive planning effort. Similarly, to match the level of input detail performed on the Chester County portion of the study area, an independent review of land development proposals and future growth was performed by Upper Providence Township staff to supply the township's estimates of future demographic inputs to the model. The initial study area calculations were reviewed for reasonableness or modification by DVRPC.

The ICRR study area's Year 2030 socioeconomic data sets, emanating from the municipal input exercise and used in the study's travel forecasting work, are shown in Table 1. The data sets used in the ICRR modeling work are three percent higher in population and 38 percent higher in employment compared to DVRPC's official Year 2030 forecasts of population and employment in the study area. For the remainder of the region, DVRPC's official set of population and employment forecasts for Year 2030 planning were used as the socioeconomic inputs for modeling.
FIGURE 2: CURRENT TRAFFIC VOLUMES

$\%$

| Municipality | Area <br> $\left(\mathrm{mi}^{2}\right)$ | Population |  |  |  | Employment |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2000 | 2030 | Change 2000 vs. 2030 |  | 2000 | 2030 | Change 2000vs. 2030 |  |
|  |  |  |  | Abs. | Per. |  |  | Abs. | Per. |
| East Pikeland | 8.8 | 6,551 | 9,516 | 2,965 | 45\% | 1,550 | 4,183 | 2,633 | 170\% |
| Phoenixville | 3.6 | 14,788 | 18,070 | 3,282 | 22\% | 4,773 | 8,216 | 3,443 | 72\% |
| Schuylkill | 8.6 | 6,960 | 9,208 | 2,248 | 32\% | 2,531 | 3,307 | 776 | 31\% |
| Upper Providence | 17.8 | 15,398 | 24,100 | 8,702 | 57\% | 8,949 | 24,912 | 15,963 | 178\% |
| Total: | 38.8 | 43,697 | 60,894 | 17,197 | 39\% | 17,803 | 40,618 | 22,815 | 128\% |

Source: DVRPC with input from Municipalities / April 2006

## Year 2030 Committed Scenario

DVRPC staff prepared the Committed Scenario model to represent future no-build traffic conditions. The Year 2030 Committed Scenario assumed the future year socioeconomic inputs (described above) and incorporated a determined set of updates to the modeled network to reflect highway improvements, which have been constructed since 2000 and are presently in or imminent for construction. These are listed in Table A1 in the Appendix. Locally, these projects are drawn from the current Transportation Improvement Program (TIP), and projects identified by the Steering Committee. Projects on DVRPC's current long range plan (Destination 2030) stand as the official guide for projects outside the study area. A sampling of the local projects included:

```
- Filmore Street's extension between Dayton and PA 113 (now open to traffic)
- Dayton Street's extension, north of Filmore Street (now open to traffic) - French Creek Parkway and connector to High Street
- Arcola Road Extension and associated widening along PA 29
- Closed-loop traffic signal systems through the Borough on Bridge Street and along PA 23 / PA 113
```

Intersection control and lane configurations at key locations along the studied alignment are illustrated on Figure A1.

## Year 2030 Recommended Scenario

The Recommended Scenario ${ }^{4}$ serves as the study's "build scenario," and seeks to determine the transportation benefits / consequences offered through a widely applied set of additional mobility improvements judged to be desirable and reasonable, although not currently part of the project development process. The Recommended Scenario model was prepared by adding identified improvement projects to the Committed Scenario's modeled network and "ran" with the set of Year 2030 demographic inputs.

The full set of modeled improvement projects is shown in Table A1. Those improvements included in the immediate detailed study area of the modeled network were:

- The ICRR with a two-lane bridge over the Schuylkill River connecting PA 113 to PA 29 (without direct access to Mont Clare), Filmore Street's westward extension to Township Line Road through the "Filmore Village" development, and Township Line Road's at-grade alignment with PA 23
- PA 29 widening for one additional lane in each direction from the ICRR to Black Rock Road, and north of Black Rock Road to match the Providence Town Center development's approved improvements at the US 422 interchange
- Direct on-ramp to eastbound US 422 from northbound PA 29
- A new "back door" connection for the French Creek Center development between High Street and Filmore Street
- Pawlings Road $1 / 2$-diamond interchange with US 422 serving movements to and from the east
- PA 724 / PA 23 widening to two-lanes in each direction between Spring Hollow Road and Township Line Road through East Pikeland

Conceptual lane configurations and methods of traffic control for key locations along the relief route are shown on Figure A1.

[^2]
## Traffic \& Community Impact Assessment

It is important to understand how future traffic volumes and new proposed roadway alignments will benefit travel and impact the community and environment. To accomplish these tasks, future year link traffic forecasts (AADTs) were prepared and tabulated for each travel forecasting scenario. These volumes are shown on subsequent illustrations and are tabulated in the Appendix.

Additionally, network attributes and model outputs of the highway travel simulations were aggregated to provide study area performance measures (vehicle miles of travel and volume/capacity ratios) with which to evaluate and compare scenarios. These tabulations were prepared for the complete highway network (including freeways, expressways, arterial, collectors, and local highways) in the modeled network, and for the locally accessible highway system (i.e., the complete highway network excluding any expressways or freeways). These performance statistics are tabulated in Table A3 and Table A4 in the Appendix for the study area's complete and local modeled highway networks, respectively.

Finally, information concerning vehicle crash data and environmental justice concerns were also evaluated as part of this assessment.

Year 2030 Committed Scenario vs. Current Conditions
Year 2030 Committed Scenario traffic forecasts in the study area are shown in Figure 3 and listed in Table A2 in the Appendix.

Traffic volumes on US 422 are estimated to increase by 16,000 vehicles per day (vpd) west of PA 29 and 11,000 vpd east of PA 29. The French Creek Parkway will carry between 10,000 and 15,000 vpd.

Volume along PA 23 generally increases between 15 and 25 percent over existing AADT's. Where PA 23 is paralleled by the French Creek Parkway, a three percent decrease is projected. PA 113 increases about 30 percent south of PA 23 and north of $2^{\text {nd }}$ Avenue. Through the Borough's


Traffic on PA 113 Emmett Street is expected to decrease 49\% under the Committed Scenario.
traffic increases (+20\%) are indicated for PA 113, and substantial increases are forecasted along Filmore Street and Franklin Street (although the volume on each remains low-4,200 to 4,800 vpd). Bridge Street's traffic demand is forecasted to decline between 20 percent and 40 percent through Phoenixville's business district as a consequence of traffic relief delivered by the French Creek Parkway. Through Mont Clare and up to the US 422 interchange, Bridge Street / PA 29 traffic volumes will rise between 30 and 50 percent over current traffic levels.

Total travel on the modeled network of locally accessible roadways (e.g., VMT in Table A4) in the Committed Scenario increases 30 percent throughout the study area, if compared with current conditions. Total area-wide congestion levels (i.e., V/C ratios) will increase 17 percent on the local highway network (see Table A4).

## Year 2030 Recommended Scenario vs. Current Conditions

Forecasted Year 2030 Recommended Scenario traffic volumes in the ICRR study area are shown in Figure 4 and listed in Table A2.

There will be an increase of 18,000 daily vehicles on US 422 west of PA 29, and 17,000 vehicles east of PA 29. Daily volume on the French Creek Parkway will range between 8,300 and $14,300 \mathrm{vpd}$.

Roads comprising the InterCounty Relief Route's studied alignment will increase by 6,700 vpd on Township Line Road north of PA 113, and by 8,400 daily vehicles between Mowere and the proposed extension of Filmore Street. As many as 9,800 additional daily vehicles are projected to travel on Filmore Street east of Franklin. The proposed bridge over the Schuylkill River will carry 10,600 vpd. PA 29 traffic levels will almost double in the segment between the proposed ICRR intersection and Black Rock Road.

Traffic levels on PA 23 west of Township Line Road will increase by 40 to 50 percent over current levels. Between Township Line Road and the French Creek Parkway, and east of Bridge Street, PA 23 traffic levels will increase between 20 and 30 percent. Between the French Creek Parkway and Bridge Street, future year traffic AADTs are forecasted to be five percent above current volumes. PA 113 increases about 40 percent south of Township Line, and about 10 percent between Township Line and PA 23. Traffic increases between 15 and 20 percent between $2^{\text {nd }}$ Avenue and Black Rock Road. Along Bridge Street in areas paralleled by the French Creek Parkway, traffic volumes will be between 10 percent and 40 percent lower than current volume. Bridge Street / PA 29 volumes increase on the order of 20 percent-from Starr Street through Mont Clare up to the proposed intersection with the ICRR.
FIGURE 3: YEAR 2030 COMMITTED SCENARIO TRAFFIC VOLUMES

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FIGURE 4: YEAR 2030 RECOMMENDED SCENARIO TRAFFIC VOLUMES

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Total travel on the modeled network of locally accessible roads (e.g., VMT in Table A4) in the Recommended Scenario increases about 40 percent throughout the study area over current conditions. Total area-wide congestion levels (i.e., V/C ratios in Table A4) are 14 percent higher than current conditions.

## Year 2030 Committed Scenario vs. Year 2030 Recommended Scenario

Table A2 also contains the changes in traffic volumes between the Committed and Recommended Scenarios. On the freeway network in the Recommended Scenario, US 422 is 2,100 vpd higher on the west side of the PA 29 interchange, and is $6,000 \mathrm{vpd}$ higher east of PA 29. Volume change(s) on the ramps at the interchange follow suit, as ramp volume to / from the west is diverted by the ICRR, and more volume is attracted to / from the east by the widening of US 422.

Traffic volumes along the French Creek Parkway are slightly lower in the Recommended Scenario versus the Committed Scenario, due to the parallel, alternate route provided by the ICRR. As a result of the ICRR, substantial volume increases take place on the collector streets comprising the proposed alignment, namely Township Line Road and Filmore Street.

In the Recommended Scenario there is a moderation in traffic volume growth forecasted in the Borough's north-end street network. Volume on PA 113 and Franklin Street is diverted over a wider network as a result of the ICRR and the new roadway linking the French Creek Center development with the ICRR, located between High Street and Filmore Street. On PA 23, east of Bridge Street through the Borough and Schuylkill Township, traffic volumes remain buoyed in both future scenarios. On the other hand, moderate reductions are posted east of Pawlings Road as a consequence of diversions to the $1 / 2$-diamond interchange proposed at Pawlings Road and US 422. Bridge Street and PA 29 volume, through the heart of the Phoenixville Borough and Mont Clare up to the ICRR's intersection, is five to 20 percent lower assuming the Recommended Scenario's modeled network.

Highway performance statistics computed and aggregated from the Committed and Recommended scenarios' travel simulations are shown in Table A3 and Table A4. The level of modeled travel on the locally accessible roadway network (i.e., VMT in Table 4) is about seven percent higher in the Recommended Scenario than the Committed Scenario. And while Schuylkill Township and Phoenixville Borough register slight increases in congestion (e.g., V/C ratios in Table 4), overall area-wide congestion levels on the study area's local road network are slightly less congested given the improvements modeled in the Recommended Scenario's travel simulation.

## Crash Data Analyses

Vehicular crash data used in this analysis was obtained from the Pennsylvania Department of Transportation. Reportable traffic accident data for three years (2000, 2001, and 2003) were evaluated and summarized. Recorded crashes occurring along a state highway within the viewable study area are mapped in Figure 5. Each dot on the map represents a single incident.

Multiple crashes may have occurred at any given location, but are only visible as a single point due to mapping limitations (i.e., overlapping). Additionally, more crashes occurred in the analysis period than were able to be mapped-since the crash records for many of the accidents occurring along local roadways were not supported with exact location data.

Total crash data on state and local roads in the study area (including those shown on Figure 5) were tabulated for analysis. Table 2 presents a summary of the crash data, for the overall study area, stratified by state and local highway ownership.

| Table 2: Study Area Crash Data (2000, 2001 and 2003) |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Crashes by <br> Network |  |  | Injuries by <br> Network |  | Fatalities by <br> Network |  |  |  |
| Municipality | State | Local | Total | State | Local | Total | State | Local | Total |
| East Pikeland | 103 | 31 | 134 | 61 | 15 | 76 | 0 | 1 | 1 |
| Schuylkill | 198 | 33 | 231 | 160 | 18 | 178 | 4 | 0 | 4 |
| Phoenixville | 280 | 70 | 350 | 189 | 29 | 218 | 2 | 1 | 3 |
| Upper Providence | 607 | 137 | 744 | 534 | 101 | 635 | 5 | 0 | 5 |
| Total: | 1,188 | 271 | $\mathbf{1 , 4 5 9}$ | 944 | 163 | 1,107 | 11 | 2 | 13 |

Source: Pennsylvania Department of Transportation / December 2005
There were a total of 1,459 crashes occurring in the study area over the three year recording period. Roughly 80 to 85 percent of the total crashes, injuries, and fatalities occurred on state highways.

In addition to the regional crash data shown in Table 2, 14 "hot spots" were identified and are listed in Table 3. For this analysis, a crash location was termed a hot spot if

there were a total of nine or more crashes within a 100 foot radius of any intersection over the three year period. In the table, the number shown in parentheses in the "Most Common Crash Type" and "Most Common Contributing Factor" columns are the number of occurrences of the crash type or contributing factor.

| Location | Total Crashes | Total Vehicles | Most Common Crash Type | Most Common Contributing Factor |
| :---: | :---: | :---: | :---: | :---: |
| PA 23 \& Kimberton Road | 25 | 62 | Rear-End (13) | Tailgating (6) |
| PA 29 \& Black Rock Road | 18 | 35 | Angle (9) | Improper Turn (5) |
| PA 29 \& Egypt Road | 18 | 27 | Angle (9) <br> Hit Fixed Object (9) | Improper Turn (4) |
| PA 23 \& Bridge Street | 14 | 28 | Angle (7) | Improper Turn (3) |
| PA 23 \& Manavon Street | 13 | 31 | Angle (12) | Improper Turn (3) Improper Entrance (3) |
| PA 23 \& Hares Hill Road | 13 | 26 | Angle (8) | Pulled Out Too Soon (8) |
| Bridge Street \& Pothouse Road | 12 | 21 | Rear-End (5) | Tailgating (4) |
| PA 23 \& White Horse Road * | 11 | 25 | Rear-End (7) | Tailgating (5) |
| Egypt Road \& Hollow Road | 11 | 15 | Hit Fixed Object (7) | Driving Too Fast (2) |
| PA 29 \& EB US 422 Ramps | 10 | 21 | Angle (8) | Pulled Out Too Soon (3) |
| PA 29 \& WB US 422 Ramps | 10 | 19 | Angle (5) | Improper Turn (4) |
| PA 29 \& Rail Bridge | 10 | 15 | Hit Fixed Object (7) | Driving Too Fast (2) |
| PA 29 \& Arcola Road | 9 | 18 | Angle (6) | Improper Turn (3) |
| Bridge Street \& Main Street | 9 | 15 | Hit Pedestrian (3) Rear-End (3) | Improper Turn (2) <br> Tailgating (2) |

Source: Pennsylvania Department of Transportation / December 2005
*Location \# 8, PA 23 \& White Horse Road, is located outside of the viewable study area and is not shown on Figure 6.

Hot spots in Table 3 are listed in order from highest crash location to lowest. The highest crash location is PA 23 (Nutt Road) and PA 113 (Kimberton Road), where a total of 25 crashes occurred, involving 62 vehicles. The most common crash type were rear-end accidents, 13 recorded. The most common factor contributing to the reported accidents were tailgating, 6 recorded.

In total, the fourteen high crash locations involved 183 total crashes, and 358 vehicles. At over half of the crash locations, the most common crash type was angle accidents and the most common contributing factor was improper turning. In the business district at the intersection of Bridge Street and Main Street (location \#14), one of the most common crash types was hit pedestrian.

Hot spots are also plotted in Figure 6. All 14 hot spots are located on the State highway system. The number identifying


The intersection of PA 23 and PA 113 recorded the highest number of crashes in the study area. the hot spot location on the figure corresponds with the identifying number shown on the left side of Table 3. Further study and/or on-site investigation should be conducted to obtain the most recent traffic crash data to confirm whether any of the identified accident locations have specific, identifiable patterns for which countermeasures are warranted and deliverable.

## Environmental Justice Considerations

Title VI of the Civil Rights Act of 1964 and the 1994 President's Executive Order on Environmental Justice (\#12898) 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 effect of its programs on minority populations and low-income populations. In turn, Metropolitan Planning Organizations, 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 and minority populations.

DVRPC identified eight categories of disadvantage based primarily on U.S. Census data. The eight categories include: minorities, Hispanic, elderly, disabled, car less households, impoverished households, female head of household with child, and limited English proficiency. A regional threshold, or average, is determined to assess whether each census tract meets or exceeds this average. Each census tract that
FIGURE 6: HIGH CRASH LOCATION - $(2000,2001,2003)$
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meets or exceeds the regional average is considered an environmental justice area, and the number of these factors that apply to any given tract represent the degree of disadvantage.

The Degrees of Disadvantage process was applied to the census tracts in the InterCounty Relief Route study area. Figure 7 identifies Census Tracts containing resident population which exceed defined regional thresholds for the disadvantaged group(s). The study's TAZ reference numbers were used to locate the Tracts with disadvantaged residents in the study area, according to the 2000 Census. They are as follows:

> Upper Providence: TAZ (\#820) - meets / exceeds for elderly $\begin{array}{ll}\text { Phoenixville: } & \text { TAZ (\#600) - meets / exceeds for limited English proficiency } \\ & \text { TAZ (\#601) - meets / exceeds for elderly } \\ & \text { TAZ (\#601) \& (\#598/\#1427) - meets / exceeds for disabled }\end{array}$

The decision to pursue the ICRR, or any other federally funded public works project in the study area, must document that disadvantaged population groups have been actively identified and engaged throughout the course of the project's development process-planning, discussions and assessments.
FIGURE 7: DEGREES OF DISADVANTAGE BY 2000 CENSUS TRACT

InterCounty Relief Route: Schuylkill - East Pikeland - Phoenixville - Upper Providence

## Environmental Impact Assessment

Natural and cultural resources are plentiful and fully integrated within the ICRR study area. They provide recreation opportunities and enhance the quality of life for local residents. The closer and more careful examination of the ICRR project required that an environmental screening of these features be performed.

## Cultural Landmarks and Historic Resources

Information sources referenced and used in identifying the resources were: the Pennsylvania Historical \& Museum Commission (PHMC), the National Register of Historic Places, Wise Preservation (consultants to Upper Providence Township), Chester and Montgomery counties, Upper Providence Township's Draft Open Space Plan (prepared by The Waetzman Planning Group), and DVRPC's geographic databases. According to those source materials there are several occurrences where the path of the InterCounty Relief Route may affect cultural or historic resources.
Figure 8 illustrates the ICRR's alignment and identified resources.
Along Filmore Street in Phoenixville is Reservoir Park and Friendship Field at the intersection of Franklin Street. There is also a ball field proposed by the Borough near the northwest corner of PA 113 and Filmore Street.


The Schuylkill River Navigation Canal provides many recreational opportunities.

The ICRR's proposed new bridge across the Schuylkill River between Phoenixville and Upper Providence, would likely have a visual impact on the public lands comprising the Ravine Preservation Area in Mont Clare and the Schuylkill River Navigation Canal. The left bank of the Schuylkill River contains three historical resources listed on the National Register of Historic Places, including Lock No. 60, the Lock Keeper's House and Black Rock Dam. In Upper Providence, the proposed alignment traverses two publicly owned preserved open space areas: one owned by the Commonwealth of Pennsylvania and the other by Montgomery County. The potential alignment is also adjacent to a preserved open space parcel owned by Upper Providence Township.

Upper Providence Township maintains a park on the west side of PA 29 adjacent to the westbound US 422 off-ramp. There are also two historic properties situated along PA 29. One is a locally significant historic property (identified by Wise Preservation) located on the east side of the highway between the ICRR and Black Rock Road. The other is the Hunsicker Farm property, located on the northwest corner of PA 29 and Black Rock Road intersection. The Hunsicker Farm is identified as an Eligible Historic

Property by the Pennsylvania Historical and Museum Commission and the National Register of Historical Places.

## Natural Features

Inventories of natural features included flood plains, wetlands, and open space resources. Sources used in identifying the features included GIS files contained in geographic databases maintained by DVRPC and the Pennsylvania Department of Environmental Protection (PA DEP), materials produced by Chester County, the Montgomery County Open Space Plan, and the Upper Providence Township Draft Open Space Plan. The proposed roadway alignment is presented in relation to the identified natural features in Figure 9.

The potential path of the ICRR may encroach or have impacts on flood plains with the French Creek in the vicinity of Township Line Road's crossing with PA 23 (e.g., the proposed direct atgrade alignment of Township Line Road and PA


A tributary of the French Creek near PA 23 and Township Line Road. 23, as proposed in the ICRR concept) in the study area's southwest corner where East Pikeland, Schuylkill, and Phoenixville meet. There is also a small tributary of the French Creek that traverses Township Line Road between PA 23 and Mowere Road that could be impacted depending upon the level of improvement needed to support the ICRR. Lastly, flood plains bordering the Schuylkill River might be affected by a proposed new bridge crossing between Phoenixville and Upper Providence.

Improvements to existing roadways, if any are necessary to support the proposed ICRR alignment, may affect identified wetlands at the streambed of the French Creek's tributary adjacent to Township Line Road between PA 23 and Mowere Road, at the Reservoir adjacent to Filmore Street in Phoenixville Borough, and in the northeast quadrant of the US 422 and PA 29 interchange. The alignment of the proposed new roadway sections would impact wetlands at the banks of the Schuylkill River, and in the streambed of the creek forming "the ravine."

The alignment of existing roadways comprising the ICRR pass identified open space resources at the Reservoir Park, Friendship Field, and a proposed ball field in Phoenixville Borough, and an Upper Providence Township park located on the southwest quadrant of the PA 29 and US 422 interchange. The proposed path of the ICRR at its bridge crossing with the Schuylkill River would affect the Ravine
FIGURE 8: CULTURAL LANDMARKS \& HISTORIC RESOURCES
InterCounty Relief Route: Schuylkill - East Pikeland - Phoenixville - Upper Providence

FIGURE 9: NATURAL FEATURES

InterCounty Relief Route: Schuylkill - East Pikeland - Phoenixville - Upper Providence


Preservation Area in Upper Providence Township and a parcel of preserved open space owned by Montgomery County.

## Steep Slopes

To fully appreciate environmental conditions in the Ravine Preservation Area, the Study Steering Committee requested that DVRPC staff prepare a graphic of elevation contours focusing on the area of the proposed ICRR roadway and bridge crossing between Phoenixville and Upper Providence (refer to Figure 10, located in the rear pocket of this report).

The contour data used to prepare the figure was provided by Chester County, and Czop/Specter, Inc. (Upper Providence Township's municipal engineers). The aerial photography serving as the base for the graphic is DVRPC's (2005).

Visually, slopes steepen as the space between adjacent elevation contour lines lessen (e.g., get closer together). On Figure 10, steep slopes are most noticeable where the yellow-orange elevation lines appear to get brighter or become more prominent. Sharp


Elevation changes near the potential ICRR crossing would pose many engineering challenges. slopes exist along Upper Providence Township's bank of the river, and large elevation differences exist from one side of the river to the other. The ravine in Upper Providence can be seen in the center of the view-defined by close contours, arranged in chevron form. At the base of the ravine exists a stream.

An area which the potential alignment of the ICRR might occupy is indicated as a broad green dash on Figure 10. Note that this is the same general footprint proposed for the original Phoenixville Spur highway, according to the project's design drawings prepared in the late 1960's and early 1970's. The proposed highway alignment "enters" Upper Providence at the ravine's outlet to the Schuylkill River. Note also on the figure that upstream opportunities for a river crossing have been lost to a residential development [recently] constructed on the Upper Providence side of the river. [The River Crest development is identifiable by its internal roadways: Quail Drive South and Quail Drive North, etc.]

ICRR / Phoenixville Spur and Planned Trail and Bikeway Networks
The relationship between the planned or proposed alignments of the InterCounty Relief Route, the right-of-way designated for the previously proposed Phoenixville Spur limited access highway, and the interconnected regional bikeway and trail networks being advanced for implementation by Chester and Montgomery Counties are illustrated on Figure $11^{5}$.

On the figure, the light green lines represent the ICRR alignment, the purple lines indicate the general alignment of the Phoenixville Spur's right-of-way, and the dark green, ochre and dark brown lines show the hierarchical multi-use trail network envisioned by the counties. The objective of the examination was to evaluate the potential, and determine the municipal support for using the Phoenixville Spur's right-of-way, not required by the ICRR, for alternate hiking, biking or recreational use across the study area.


The Perkiomen Trail provides multi-use activities in Lower Providence. The ICRR's right-of-way could be incorporated into the region's trail network.

Observations were made and initial recommendations ${ }^{6}$ derived through the committee for each of five segments along the Phoenixville Spur's right-of-way:
A. The easternmost segment - between US 422 and Black Rock Road, in Upper Providence, Montgomery County: Coincides with Upper Providence Township's Trail Plan and complements its Open Space Plan. Recommend 12 foot wide trail.
B. The Black Rock Road to PA 29 segment, in Upper Providence, Montgomery County: Potential duplication, but interconnects with the regional network and acts as an alternate to high trafficked roads and high crash location (the PA 29 and Black Rock Road intersection). Coincides

[^3]with Upper Providence Township's Trail Plan and complements its Open Space Plan. Recommend 12 foot wide trail.
C. The PA 29 to PA 113 segment, Upper Providence, Montgomery County and Phoenixville, Chester County: Provides river crossing and interconnection with the counties' defined regional network. Offers opportunities for extensions into the Mont Clare neighborhood and the Ravine Preservation Area. [Direct service to the latter, without the bridge, is cited in the Upper Providence Township Open Space Plan]. Affords alternate routing to avoid high crash locations at: the PA 29 and Egypt Road intersection, and PA 29's underpass of the railroad (e.g., entering Mont Clare). Recommend 12 foot wide path adjacent to the ICRR's cartway, protected by median barrier.
D. PA 113 to Township Line Road, Phoenixville and East Pikeland Township, Chester County: Segment provides for linkage of trails into the center of Phoenixville. The "Schuylkill River Trail," westward from Township Line Road, is currently being developed by the Chester County Parks Department. Opportunities to interconnect with the regional network are most expediently delivered via the existing street network through Phoenixville. Long term recommendation for 12 foot wide trail on separate right-of-way.
E. Township Line to PA 724 / PA 23, East Pikeland, Chester County: The segment offers the near term potential for local access to the regional network's "Schuylkill River Trail - West" via Township Line Road. Longer term possibilities include connection with Segment D (above) and extension of the regional network.
FIGURE 11: PLANNED TRAIL \& BIKEWAY NETWORK


$4 \begin{aligned} & \text { DELAWARE VALLEY REGIONAL } \\ & \text { PLANNING COMMISSION } \\ & \text { AUGUST 2006 }\end{aligned}$

## Study Findings

The following conclusions and recommendations have been reached through the technical and steering committee work conducted for the InterCounty Relief Route study.

## Conclusions

The Year 2030 travel simulation work performed for the InterCounty Relief Route study indicated that:

1. The ICRR would attract substantial volumes to Township Line Road and Filmore Street. In the end, not as high as the volume currently using the streets it seeks to relieve, such as Bridge Street, the French Creek Parkway, and PA 23 east of Township Line. The proposed ICRR bridge spanning the Schuylkill River, and carrying a two lane roadway (and trail) between PA 113 and PA 29, would serve an estimated 10,600 vehicles per day.
2. Traffic volume relief would be experienced on Bridge Street through the Borough, and on PA 29 through Mont Clare if the ICRR were constructed.
3. Overall study area traffic congestion would be less with the ICRR, and the supporting traffic improvements assumed in the study's "Recommended Scenario."
4. The indications of the ICRR's travel forecasting work-which accounted for updated land use visions of the study area municipalities-suggest that the multi-modal, Mobility Improvement Plan and Management Measures recommended in the parent Phoenixville Area Intermodal Transportation Study remain valid as a guide for future transportation planning and investment decision-making in the study area.
5. Continuing traffic growth along PA 724 and PA 23 through East Pikeland, Phoenixville, and Schuylkill forecasted in the ICRR work can be mitigated by providing regional-scale, parallel transportation improvements within the corridor (as contained within the recommended Mobility Improvement Plan cited in the Phoenixville Area Intermodal Transportation Study), namely:
a. Constructing and operating passenger rail service in the corridor (e.g., like the "Schuylkill Valley Metro")
b. Extending US 422's mainline widening to three lanes in each direction westward-to the Lewis Road interchange, in Limerick Township

The environmental screening completed for the study indicated that:

1. Strong engineering and permitting challenges can be expected in minimizing and "clearing" the proposed ICRR Schuylkill River bridge crossing's effects on the natural environment
2. Opportunities to provide a new bridge crossing at locations other than within the Spur right-of-way, and significantly apart from the ravine area (either up or downstream) have been sharply limited or lost to land development
3. Since the original Phoenixville Spur project's design, Upper
Providence's riverbank adjacent to the ravine has become a focus for historic site restoration, and cultural


Development in Upper Providence has limited the location of a river crossing. and recreational promotion. The proposed ICRR bridge and roadway crossing in the ravine area would also need to clear its effects upon the human environment-a step more rigorously completed today because of the cultural and residential developments now adjacent to proposed "new" sections of the transportation facility.

Based on the foregoing analyses and findings, and leaving financial requirements and commitments aside...

It was the conclusion of the Study Steering Committee that: a new InterCounty
Relief Route bridge and roadway connection between PA 113, in Phoenixville
Borough, and PA 29, in Upper Providence Township, is not unanimously supported by the study area municipalities at this time.

## Recommendations

Given the Study Steering Committee's conclusion, the following transportation related recommendations become very important, as Greater Phoenixville seeks to accommodate regional growth with less infrastructure improvement planned for its future.

1. Traffic congestion is sure to intensify as regional development and travel demands continue to grow. Recognizing that values may change over time but opportunities can be lost forever, it is highly recommended that the opportunity presented in the available Phoenixville Spur right-of-way be preserved by Phoenixville and Upper Providence in the possibility that a bridge, roadway, and trail connection between PA 113 and PA 29 may someday be supported to aid regional traffic conditions.
2. The Phoenixville Area Intermodal Transportation Study's recommended Mobility Improvement Plan should continually be monitored and amended. Active projects on the list should be reviewed and advanced for implementation where possible. Even smaller scale improvements, which are generally more feasible to implement, can make an important contribution to improving study area travel conditions and help stave-off the effects of regional growth when they are combined with other likescale improvements. For example, improvement elements within the regional-scale ICRR project (i.e., the extension of Filmore Street between Township Line Road and PA 113, and the direct alignment of Township Line Road with PA 23) have value and are being pursued and advanced independently.

The Filmore Street component of the InterCounty Relief Route's alignment will serve a valuable cross-town function on the Borough's north side, provide local traffic relief in the Borough, and offer an efficient alternate traffic route during the replacement of the Gay Street Bridge.

Township Line Road's realignment, consolidation, and signalization with PA 23 will serve as a gateway to the Borough's "northern relief route" (i.e., Filmore Street extended) and promote more orderly traffic flow along PA 23.

Another improvement example cited by Upper Providence Township was a local initiative to implement bottleneck improvements at the Jacob Street and Bridge Street (PA 29) intersection in Mont Clare. The improvement will extend the functionality of the existing PA 29 / Schuylkill River bridge crossing, and should be added to the area-wide Mobility Improvement Plan.
3. Using the Phoenixville Spur right-of-way for alternate hiking, biking, or recreational use across the study area is a means of supplying nontraditional, context-sensitive transportation improvements in the study area. Such projects can help offset the need for traditional projects, enhance the quality of life of local residents, and potentially help preserve the river crossing segment (or other segments) from development.

In the preceding section of this report (page 36), initial recommendations for the possible alternate use of the Phoenixville Spur's right-of-way as trails or footpaths were made which assumed the ICRR's river-crossing vehicular bridge. The Steering Committee's withdrawal of unanimous support for the bridge requires that those recommendations be re-visited. ${ }^{7}$
A. The easternmost segment between US 422 and Black Rock Road, in Upper Providence, Montgomery County: Coincides with Upper Providence Township's Trail Plan and complements its Open Space Plan. Recommend 12 foot wide trail.
B. The Black Rock Road to PA 29 segment, in Upper Providence, Montgomery County: Potentially duplicative, but interconnects with the regional network and acts as an alternate to high volume roads and high crash location (the PA 29 and Black Rock Road intersection). Coincides with Upper Providence Township's Trail Plan and complements its Open Space Plan. Recommend 12 foot wide trail.
C. The PA 29 to PA 113 segment, Upper Providence, Montgomery County and Phoenixville, Chester County. Upper Providence: Construct trail to connect the Ravine Preservation Area with the county's defined regional trail network, and the recommended Spur re-use segment B at PA 29 (as cited in the Upper Providence Township Open Space Plan). Providing linkage with Mont Clare neighborhood is optional, based on public support. River crossing per the defined county network—via: PA 29, or Black Rock Road / PA 113.
D. PA 113 to Township Line Road, Phoenixville and East Pikeland Township, Chester County. Near term recommendation - align Phoenixville's crosstown segment with local streets or Filmore Street's extension. Long term recommendation for 12 foot wide trail on separate right-of-way.
E. Township Line to PA 724 / PA 23, East Pikeland, Chester County: The segment offers the nearer term potential for local access to the

[^4]regional network's "Schuylkill River Trail - West" via Township Line Road. Longer term possibilities include connection with Segment D and extension of the regional network.

Add / update the multi-use trail recommendations to the area-wide multimodal, Mobility Improvement Plan, and coordinate funding and implementation matters with the county planning commission staff. Excluding Section C, right-of-way not required for trail use should be considered for eventual sale or release by PennDOT.
4. Continued active participation in the programs of the region's transportation management associations (i.e., the Transportation Management Association of Chester County and the Greater Valley Forge Transportation Management Association) is recommended. Application of their travel management strategies (e.g., ridesharing, etc.) will help extend the useful life of the present physical plant, and serviceability of capital transportation investments implemented in the study area. Furthermore, the TMAs provide advocacy platforms from which to promote the regional projects remaining on the Mobility Improvement Plan.

## APPENDIX

Figure A1: Current and Conceptual Geometry and Traffic Control
Table A1: ICRR Transportation Improvement Projects for Travel Modeling
Table A2: ICRR Traffic Forecasts
Table A3: Network Performance Measures - Complete Highway System
Table A4: Network Performance Measures - Local Highway System

FIGURE A1: CURRENT \& CONCEPTUAL GEOMETRY \& TRAFFIC CONTROL
InterCounty Relief Route: Schuylkill - East Pikeland - Phoenixville - Upper Providence

2) Township Line Rd \& PA 23


$\longleftarrow$ Year 2000 Configuration

$\longleftarrow$ Committed Scenario

$\longleftarrow$ Recommended Scenario

10) PA 29 \& US 422 WB Ramps

InterCounty Relief Route
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|  |  | Travel Forecasting Scenario |  |
| :---: | :---: | :---: | :---: |
| Ref \# | Improvement Description | Committed | Recommended |
| 1 | I-276 Pennsylvania Turnpike at Virginia Drive: construct electronic interchange | X | X |
| 2 | PA 100 from US 30 Business to Gordon Dr: roadway widening | X | X |
| 3 | US 202 (Sec 400) from Howelville / Swedesford Rd. to N. Gulph Road: widening | X | X |
| 4 | PA 113 over the PA Turnpike: roadway widening | X | X |
| 5 | PA 63 from Sumneytown Pike to Detweiler Rd: roadway widening | X | X |
| 6 | US 202 Sec 300 from US 30 to Howelville / Swedesford Rd: roadway widening | X | X |
| 7 | PA 100 from Fellowship Road to Gordon Drive: roadway widening | X | X |
| 8 | US 1 from Kennett Square Bypass to Bayard Rd: roadway widening | X | X |
| 9 | PA 100 Eagle Loop Road: roadway construction | X | X |
| 10 | Pennsylvania Turnpike at PA 29: construct electronic interchange | X | X |
| 11 | Old Betzwood Bridge: bridge replacement | X | X |
| 12 | US 202 SB from Markley Street to Harding Blvd: center turn lane | X | X |
| 13 | US 202 from Johnson Highway to Swede Road: roadway widening | X | X |
| 14 | US 202 from Swede Road to Morris Road: roadway widening | X | X |
| 15 | US 202 from Morris Road to PA 63: roadway widening | X | X |
| 16 | US 202 from PA 63 to PA 309: roadway widening | X | X |
| 17 | US 202 at 5 points: additional thru lanes and left turn pockets | X | X |
| 18 | Sumneytown Pike from Allentown Road to Dickerson Road: roadway widening | X | X |
| 19 | Ridge Pike from Germantown Pike to Park Avenue: closed loop signal system | X | X |
| 20 | Ridge Pike from Forest Road to Egypt Road: closed loop signal system | X | X |
| 21 | I-95 at l-276: construct interchange; US 1 to US 130: widen I-276 | X | X |
| 22 | US 202 from Pickertown Road to PA 611 Bypass: construct parkway | X | X |
| 23 | US 202 from PA 463 to Pickertown Road: construct parkway | X | X |
| 24 | I-95 Scudder Falls Bridge from Bear Tavern Road to PA 332: roadway widening | X | X |
| 25 | US 1 from I-276 to NJ State Line: roadway widening | X | X |
| 26 | US 202 Sec 100 from Matlock Street to DE State Line: roadway widening | X | X |
| 27 | PA Turnpike from Downingtown to Valley Forge: roadway widening | X | X |
| 28 | PA Turnpike from Valley Forge to Norristown: roadway widening | X | X |


|  |  | Travel Forecasting Scenario |  |
| :---: | :---: | :---: | :---: |
| Ref \# | Improvement Description | Committed | Recommended |
| 29 | US 322 from US 1 to l-95: roadway widening | X | X |
| 30 | PA 309 Connector from PA 309 to PA 63: construct roadway | X | X |
| 31 | US 202 from PA 463 to PA 309: construct parkway | X | X |
| 32 | Lafayette Street from Dannehower Bridge to PA Turnpike: construct roadway | X | X |
| 33 | I-476 from Mid-County to Lansdale: roadway widening | X | X |
| 34 | New Jersey Turnpike from Exit 6 to Exit 8A: roadway widening | X | X |
| 35 | I-295 at NJ 42 / I-76: reconfigure interchange | X | X |
| 36 | I-476 from Lansdale to Allentown: roadway widening | X | X |
| 37 | County Line Road from PA 309 to PA 611: roadway widening | X | X |
| 38 | PA 41 from DE State Line to PA 926: roadway widening | X | X |
| 39 | US 1 / US 322 from US 202 to US 322: roadway widening | X | X |
| 41 | Henderson Road from Shoemaker Road to PA Turnpike: roadway widening | X | X |
| 42 | I-76 at Henderson Road: construct ramps, widen South Gulph Road | X | X |
| 43 | Matsonford Road from l-476 interchange to Elm Street: roadway widening | X | X |
| 44 | New Jersey Turnpike from Exit 4 to Delaware Memorial Bridge: roadway widening | X | X |
| 45 | US 322 from US 130 to New Jersey Turnpike: roadway widening | X | X |
| 46 | US 422 PA 363 to PA 23: widen to 8 lanes | X | X |
| 47 | Extend Arcola Road to PA 29, widening at PA 113 \& Mennonite for Left-turn Lanes, Widen PA 29 from Arcola to US 422 interchange for three lanes in each direction | X | X |
| 48 | PA 29 thru Collegeville intersection with Ridge Ave / Main St: intersection relocation | X | X |
| 49 | Township Line Rd at Ridge Ave intersection: widening | X | X |
| 50 | Warner Lane Extension: between PA 29 and Phoenixville Pike | X | X |
| 51 | PA 23 from White Horse Road to PA 252: closed loop signal system | X | X |
| 52 | PA 29 from PA 23 to Pot House Rd: closed loop signal system | X | X |
| 53 | PA 23 from Kimberton Shopping Center to White Horse Road: closed loop signal system | X | X |
| 54 | Bridge Street, Gay Street, Main Street, Church Street: closed loop signal system | X | X |
| 55 | PA 113 from Pot House Road to Township Line Road: closed loop signal system | X | X |

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|  |  | Travel Forecasting Scenario |  |
| :---: | :---: | :---: | :---: |
| Ref \# | Improvement Description | Committed | Recommended |
| 56 | French Creek Parkway from PA 29 to PA 23: roadway construction | X | X |
| 57 | PA 29 at Starr St / French Creek Pkwy: intersection improvements | X | X |
| 58 | PA 29 from Charlestown Road to Great Valley Parkway: roadway widening | X | X |
| 59 | PA 29 from US 30 to Charlestown Road: closed loop traffic system | X | X |
| 60 | Filmore Street from Dayton Street to PA 113: roadway extension now open | X | X |
| 61 | US 422 add wb lane between PA 23 and PA 363 | X | X |
| $62^{*}$ | Dayton Street Extension north of Filmore Street: now open | X | X |
| 63 | River Crossing Complex: reconfigure PA 23 interchange, add wb ramps at PA 363, widen US 422 to 8 lanes from PA 23 to PA 363, widen US 422 to 6 lanes from PA 23 to US 202, widen North Gulph Road to 4 lanes from PA 23 to 1st Ave (include Gateway Improvement) |  | X |
| 64 | PA 23 from Kimberton Shopping Center to PA 724: closed loop signal system |  | X |
| 65 | "Schuylkill Parkway" PA 23 from US 422 to US 202: roadway relocation |  | X |
| 66 | Northern Relief Route and Bridge (i.e., ICRR) |  | X |
| 67 | PA 29 / US 422 interchange improvements: widen PA 29 for add'I lane in each direction from Black Rock Rd to match Providence Town Center widening; provide direct on-ramp from PA 29 nb to US 422 eb (also see \#47) |  | X |
| 68 | US 422 widening for six lanes to PA 29 from Pawlings Road (also see \#69) |  | X |
| 69 | Pawlings Road Interchange with PA 422 widening to six lanes from PA 363 (also see \#46 \& \#63) |  | X |
| 70 | Additional French Creek Center Access Improvements -- i.e., "back door" link: High St to Filmore St (also see \#56) |  | X |
| 71 | Align Township Line Road \& PA 23 |  | X |
| 72 | Extend Filmore St to Township Line Road on new alignment via proposed Filmore Village development |  | X |
| $72^{*}$ | Provide Loeal Conneetion between ICRR and Mont Clare |  | deleted |
| 73 | PA 29 widening for addn'I lane in each direction between ICRR and Black Rock Road |  | X |
| 74 | Pa 724 / PA 23 widen for addn'l lane in each direction between Spring Hollow Road and Township Line Road |  | X |

InterCounty Relief Route
Schuylkill - East Pikeland - Phoenixville - Upper Providence

|  |  | Year 2030 Committed Scenario Traffic Forecasts |  |  | Year 2030 Recommended Scenario Traffic Forecasts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current AADT | AADT | $\begin{aligned} & \text { abs. change from } \\ & \text { current } \end{aligned}$ | $\begin{gathered} \text { \% change v. } \\ \text { current } \end{gathered}$ | AADT | abs. change from | $\%$ change v. current | abs. change from | \% change v. Committed |
| Along the ICRR (from south to north): |  |  |  |  |  |  |  |  |  |
| Township Line south of PA 113 | 7,100 | 8,200 | 1,100 | 15\% | 10,300 | 3,200 | 45\% | 2,100 | 26\% |
| Township Line north of PA 113 | 7,400 | 7,800 | 400 | 5\% | 14,100 | 6,700 | 91\% | 6,300 | 81\% |
| Township Line south of Township Line E-W | 5,500 | 5,900 | 400 | 7\% | 12,200 | 6,700 | 122\% | 6,300 | 107\% |
| Township Line west of Township Line E-S | 5,800 | 6,000 | 200 | 3\% | closed | n.a. | n.a. | n.a | n.a. |
| Township Line (W) south of PA 23 | 3,700 | 3,900 | 200 | 5\% | closed | n.a. | n.a. | n.a | n.a. |
| PA 23 betw. Township Line (W) and (N) | 19,300 | 20,700 | 1,400 | 7\% | 34,200 | 14,900 | 77\% | 13,500 | 65\% |
| Township Line betw. PA 23 and Mowere / High | 3,700 | 4,400 | 700 | 19\% | 8,300 | 4,600 | 124\% | 3,900 | 89\% |
| Township Line betw. Mowere / High and ICRR | 2,800 | 5,500 | 2,700 | 96\% | 11,200 | 8,400 | 300\% | 5,700 | 104\% |
| Fillmore (ICRR) betw Township Line and Fillmore | -- |  |  |  | 10,000 | n.a. | n.a. | 10,000 | n.a. |
| Fillmore betw. extension and Franklin | 2,400 | 4,800 | 2,400 | 100\% | 10,400 | 8,000 | 333\% | 5,600 | 117\% |
| Fillmore betw. Franklin and Dayton | 900 | 3,300 | 2,400 | 267\% | 10,700 | 9,800 | 1089\% | 7,400 | 224\% |
| Fillmore betw. Dayton and PA 113 | -- | 2,200 | n.a. | n.a. | 11,200 | n.a. | n.a. | 9,000 | 409\% |
| PA 113 betw. Fillmore and ICRR Bridge | 7,100 | 8,400 | 1,300 | 18\% | 14,900 | 7,800 | 110\% | 6,500 | 77\% |
| ICRR Bridge | -- |  |  |  | 10,600 | n.a. | n.a. | 10,600 | n.a. |
| ICRR betw. Mont Clare access and PA 29 | -- |  |  |  | 10,600 | n.a. | n.a. | 10,600 | n.a. |
| PA 29 betw. ICRR and Black Rock | 13,000 | 19,200 | 6,200 | 48\% | 25,300 | 12,300 | 95\% | 6,100 | 32\% |
| PA 29 betw. Black Rock and SKB dr. | 15,000 | 23,200 | 8,200 | 55\% | 28,200 | 13,200 | 88\% | 5,000 | 22\% |
| PA 29 betw SKB dr. and US 422 EB ramps | 18,100 | 27,100 | 9,000 | 50\% | 32,600 | 14,500 | 80\% | 5,500 | 20\% |
| PA 29 betw. US 422 EB \& WB ramps | 18,000 | 29,300 | 11,300 | 63\% | 33,000 | 15,000 | 83\% | 3,700 | 13\% |
| PA 29 betw US 422 WB ramps and Arcola | 21,500 | 37,000 | 15,500 | 72\% | 39,600 | 18,100 | 84\% | 2,600 | 7\% |
|  |  |  |  |  |  |  |  |  |  |
| Along other segments: |  |  |  |  |  |  |  |  |  |
| US 422 mainline at PA 29 |  |  |  |  |  |  |  |  |  |
| US 422 eb , Walnut Street to PA 29 | 25,400 | 33,000 | 7,600 | 30\% | 35,800 | 10,400 | 41\% | 2,800 | 8\% |
| US 422 wb, PA 29 to Walnut Street | 25,300 | 33,500 | 8,200 | 32\% | 32,800 | 7,500 | 30\% | -700 | -2\% |
| total | 50,700 | 66,500 | 15,800 | 31\% | 68,600 | 17,900 | 35\% | 2,100 | 3\% |
| US 422 eb, PA 29 to Egypt Road | 26,800 | 32,800 | 6,000 | 22\% | 36,900 | 10,100 | 38\% | 4,100 | 13\% |
| US 422 wb, Egypt Road to PA 29 | 28,900 | 33,900 | 5,000 | 17\% | 35,800 | 6,900 | 24\% | 1,900 | 6\% |
| total | 55,700 | 66,700 | 11,000 | 20\% | 72,700 | 17,000 | 31\% | 6,000 | 9\% |
|  |  |  |  |  |  |  |  |  |  |
| US 422 and PA 29 interchange ramps |  |  |  |  |  |  |  |  |  |
| PA 29 \& US 422 EB off-ramps | 6,600 | 10,400 | 3,800 | 58\% | 10,200 | 3,600 | 55\% | -200 | -2\% |
| PA 29 \& US 422 EB on-ramps | 8,000 | 10,200 | 2,200 | 28\% | 5,600 | 3,300 | 41\% | 1,100 | 11\% |
| PA 29 \& US 422 EB on-ramp |  |  |  |  | 5,700 |  |  |  |  |
| PA 29 \& US 422 WB on-ramps | 6,100 | 9,500 | 3,400 | 56\% | 8,500 | 2,400 | 39\% | -1,000 | -11\% |
| PA 29 \& US 422 WB off-ramps | 9,700 | 9,900 | 200 | 2\% | 11,500 | 1,800 | 19\% | 1,600 | 16\% |

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Table A2: InterCounty Relief Route Traffic Forecasts

| Table A2: InterCounty Relief Route Traffic Forecasts |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Year 2030 Committed Scenario Traffic Forecasts |  |  | Year 2030 Recommended Scenario Traffic Forecasts |  |  |  |  |
|  | Current AADT | AADT | abs. change from current | \% change v. | AADT | abs. change from current | $\begin{gathered} \text { \% change } v . \\ \text { current } \end{gathered}$ | $\begin{gathered} \text { abs. change } \\ \text { from Committed } \\ \hline \end{gathered}$ | $\%$ change v. Committed |
|  |  |  |  |  |  |  |  |  |  |
| Twp. Line (E) betw. Township Line (S) and PA 23 | 800 | 1,300 | 500 | 63\% | closed | n.a. | n.a. | n.a. | n.a. |
|  |  |  |  |  |  |  |  |  |  |
| Township Line Road (East Pikeland Twp.) |  |  |  |  |  |  |  |  |  |
| Township Line betw. ICRR and Fillmore / Spring City | 2,800 | 4,700 | 1,900 | 68\% | 1,900 | -900 | -32\% | -2,800 | -60\% |
|  |  |  |  |  |  |  |  |  |  |
| Spring City Road / Fillmore Street |  |  |  |  |  |  |  |  |  |
| Spring City west of Township Line | 2,600 | 5,100 | 2,500 | 96\% | 5,100 | 2,500 | 96\% | 0 | 0\% |
| Fillmore east of Township Line | 2,200 | 4,800 | 2,600 | 118\% | 4,100 | 1,900 | 86\% | -700 | -15\% |
|  |  |  |  |  |  |  |  |  |  |
| Franklin Street |  |  |  |  |  |  |  |  |  |
| Franklin south of Fillmore | 2,100 | 4,200 | 2,100 | 100\% | 1,700 | -400 | -19\% | -2,500 | -60\% |
|  |  |  |  |  |  |  |  |  |  |
| Dayton Street |  |  |  |  |  |  |  |  |  |
| Dayton south of Fillmore | 900 | 1,200 | 300 | 33\% | 1,800 | 900 | 100\% | 600 | 50\% |
|  |  |  |  |  |  |  |  |  |  |
| French Creek Parkway |  |  |  |  |  |  |  |  |  |
| French Creek Parkway north of PA 23 ( A ) | -- | 10,200 | n.a. | n.a. | 9,400 | n.a. | n.a. | -800 | -8\% |
| French Creek Parkway south of Main Street ( $B$ ) | -- | 10,100 | n.a. | n.a. | 8,300 | n.a. | n.a. | -1,800 | -18\% |
| French Creek Pky betw. Main and Bridge / Starr (C) | -- | 15,300 | n.a. | n.a. | 14,300 | n.a. | n.a. | -1,000 | -7\% |
| French Creek Parkway: connector to High Street (D) | -- | 3,200 | n.a. | n.a. | 2,800 | n.a. | n.a. | -400 | -13\% |
| Extension betw. High and Fillmore / ICRR ( E ) | -- |  |  |  | 2,600 | n.a. | n.a. | 2,600 | n.a. |
|  |  |  |  |  |  |  |  |  |  |
| Bridge Street |  |  |  |  |  |  |  |  |  |
| Bridge Street betw. Main and Starr | 12,000 | 7,300 | -4,700 | -39\% | 6,900 | -5,100 | -43\% | -400 | -5\% |
|  |  |  |  |  |  |  |  |  |  |
| PA 29 |  |  |  |  |  |  |  |  |  |
| PA 29 (Starr Street) south of Bridge Street | 13,000 | 14,300 | 1,300 | 10\% | 15,700 | 2,700 | 21\% | 1,400 | 10\% |
| PA 29 south of Egypt | 16,300 | 20,900 | 4,600 | 28\% | 19,700 | 3,400 | 21\% | -1,200 | -6\% |
| PA 29 north of Egypt | 11,100 | 16,400 | 5,300 | 48\% | 13,300 | 2,200 | 20\% | -3,100 | -19\% |
|  |  |  |  |  |  |  |  |  |  |
| Yeager Road / Black Rock Road |  |  |  |  |  |  |  |  |  |
| Yeager west of PA 113 | 4,300 | 8,600 | 4,300 | 100\% | 8,200 | 3,900 | 91\% | -400 | -5\% |
| Black Rock east of PA 113 | 8,000 | 7,500 | -500 | -6\% | 8,100 | 100 | 1\% | 600 | 8\% |
| Black Rock west of PA 29 | 8,400 | 7,900 | -500 | -6\% | 8,500 | 100 | 1\% | 600 | 8\% |
| Black Rock east of PA 29 | 9,200 | 12,300 | 3,100 | 34\% | 9,700 | 500 | 5\% | -2,600 | -21\% |

Table A3: Network Performance Measures - Complete Highway System

|  | 2000 Base Year |  | 2030 Committed |  | 2030 Recommended |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Municipality | Vehicle <br> Miles of <br> Travel | V/C | Vehicle <br> Miles of <br> Travel | V/C | Vehicle <br> Miles of <br> Travel | V/C |
| East Pikeland | 102,847 | 0.53 | 130,328 | 0.67 | 146,360 | 0.61 |
| Phoenixville | 118,227 | 0.66 | 146,897 | 0.67 | 165,283 | 0.68 |
| Schuylkill | 142,594 | 0.75 | 187,822 | 0.82 | 188,957 | 0.84 |
| Upper Providence | 579,622 | 0.51 | 757,379 | 0.66 | 808,678 | 0.61 |
|  | Total: | $\mathbf{9 4 3 , 2 9 0}$ | $\mathbf{0 . 5 8}$ | $\mathbf{1 , 2 2 2 , 4 2 6}$ | $\mathbf{0 . 6 8}$ | $\mathbf{1 , 3 0 9 , 2 7 8}$ |

Source: DVRPC / May 2006

Table A4: Network Performance Measures - Local Highway System

|  | 2000 Base Year |  | 2030 Committed |  | 2030 Recommended |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vehicle <br> Miles of <br> Travel | V/C | Vehicle <br> Miles of <br> Travel | V/C | Vehicle <br> Miles of <br> Travel | V/C |
| Municipality | 102,847 | 0.53 | 130,328 | 0.67 | 146,360 | 0.61 |
| East Pikeland | 118,227 | 0.66 | 146,897 | 0.67 | 165,283 | 0.68 |
| Phoenixville | 142,594 | 0.75 | 187,822 | 0.82 | 188,957 | 0.84 |
| Schuylkill | 220,991 | 0.49 | 304,463 | 0.64 | 319,734 | 0.62 |
| Upper Providence | Total: | 584,659 | $\mathbf{0 . 5 8}$ | $\mathbf{7 6 9 , 5 1 0}$ | $\mathbf{0 . 6 8}$ | $\mathbf{8 2 0 , 3 3 4}$ |
| $\mathbf{0 . 6 6}$ |  |  |  |  |  |  |

Source: DVRPC / May 2006

## Pocket Insert Front

## Pocket Insert Back

# DELAWARE VALLEY REGIONAL PLANNING COMMISSION 

## Publication Abstract

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Title: | InterCounty Relief Route |  |  |
| Schuylkill - East Pikeland - Phoenixville - Upper Providence | Date Published: | August 2006 <br> 06024 |  |
|  |  |  |  |

Geographic Area Covered: the Greater Phoenixville Area - including the Borough of Phoenixville, East Pikeland Township, and Schuylkill Township in Chester County, Pennsylvania, and Upper Providence Township in Montgomery County, Pennsylvania

Key Words: regional travel demand forecasting, transportation improvement program, mobility improvement plan, traffic and community impact, traffic safety, environmental justice, environmental screening, cultural and historic resources, natural features, multi-use trails


#### Abstract

The InterCounty Relief Route is a proposed circumferential highway which would mimic the alignment of the previously proposed multilane Phoenixville Spur expressway (including a new bridge over the Schuylkill River) and benefit traffic conditions throughout the greater Phoenixville region; but which could be provided in a more context-sensitive manner, since it would be comprised principally of existing atgrade, two lane roadways. Both the ICRR highway concept and this detailed study of the highway were recommendations of the Phoenixville Area Intermodal Transportation Study (DVRPC, January 2003).

Greater levels of detail were deemed necessary to identify opportunities and constraints along the specific alignment for the municipal decision-makers, who ultimately must support the proposed transportation facility. As in the parent study, this follow-up effort involved committee and technical work, performed with the direct participation of representatives of the affected municipalities. Completed tasks included: reviewing alternative alignments, updating traffic forecasts, performing traffic safety analyses, and screening environmental features (human and natural) along the preferred alignment.

In conclusion of the work, the Study Steering Committee did not continue its unanimous support for the new Schuylkill River bridge crossing and roadway between PA 113 and PA 29-which is the heart of the regional improvement. Still, opportunities remain and recommendations are presented, including: pursuing smaller scale highway projects which will improve localized vehicular travel, utilizing the Phoenixville Spur's right-of-way for alternate hiking, biking, or recreational use as a means of supplying non-traditional transportation improvements in the study area (and preserving the possibility for a bridge and roadway between Phoenixville and Upper Providence should values change and regional traffic conditions warrant).


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[^0]:    ${ }^{1}$ DVRPC Report No. 03001, January 2003.
    ${ }^{2}$ Referred to as the "Northern Relief Route" in the PAITs.

[^1]:    ${ }^{3}$ To differentiate the project from the "Northern Relief Route" which has been adopted by the Borough of Phoenixville to represent the extension of Filmore Street across the Borough. A stand-alone project, upon which the ICRR could piggy back, the Northern Relief Route is being independently pursued and developed, locally.

[^2]:    ${ }^{4}$ So called since the improvements contained in the scenario generally conform with the recommendations of PAITs, as updated through this study.

[^3]:    ${ }^{5}$ Figure 11 is a conceptual representation of the network. Contacting the counties and municipalities for, and referring to their most recent and detailed plans of the full network is suggested
    ${ }^{6}$ Note that the final recommendations for segments $C$ and $D$, above, were changed. Updates in the recommendations were necessary to reflect the Steering Committee's final determination on the proposed ICRR. Refer to page 42 for the final recommendations.

[^4]:    ${ }^{7}$ It is advised to contact county and municipality representatives to obtain the most recent and detailed plans of the trail networks.

