

# PENNDOT TRAFFIC STUDIES AND REVIEW OF TRAFFIC ISSUES FOR CHELTENHAM TOWNSHIP

PUBLIC SAFETY COMMITTEE MEETING  
WEDNESDAY, SEPTEMBER 22, 2021 AT 7:30 PM

# PLANNED ENGINEERING AND TRAFFIC STUDIES

- PennDOT is in the process of performing the following studies which are planned for completion by mid-to-late October, unless noted otherwise. In accordance with the regulations, please note that the Township will be responsible to purchase, install and maintain speed limit signs of 35 MPH or lower if warranted and justified based on the department's Engineering and Traffic Study.

CHURCH RD (SR 0073) BETWEEN WILLOW GROVE AVENUE  
AND WASHINGTON LANE; AND  
CHURCH RD (SR 2023) BETWEEN WASHINGTON LANE  
AND TOWNSHIP LINE ROAD

- Review of crash histories along the corridors.
- Evaluation of Stopping Sight Distance for entire five-mile corridor utilizing survey quality LiDAR data.
- Evaluation of intersection sight distance for all un-signalized intersections (except driveways).
- right-of-way; slow curve marking legends; and speed limit legends along Church Road between Willow Grove Avenue and Township Line Road. PennDOT will also offer safety improvement recommendations the township may wish to consider and potentially pursue, including but not limited to, those associated with pedestrians and traffic calming.

CHURCH RD (SR 0073) BETWEEN WILLOW GROVE AVENUE  
AND WASHINGTON LANE; AND  
CHURCH RD (SR 2023) BETWEEN WASHINGTON LANE  
AND TOWNSHIP LINE ROAD CONT.

- Spot Speed Limit Study along Church Road between Washington Lane and Greenwood Avenue. Based on the concerns previously expressed, the stopping sight distance, intersection sight distance and safe running advisory speed data will be considered as part of the evaluation of the posted regulatory speed limit.
- Low-cost safety countermeasures – PennDOT will implement appropriate low-cost safety countermeasures (anticipated completion in spring 2022) such as enhanced pavement markings; signing; clearing sight obstructions (vegetation) within PennDOT.
- Evaluation of all curves within the corridor to determine safe running curve advisory speeds.

# GREENWOOD AVENUE (SR 2054) BETWEEN PA 309 AND CHURCH ROAD (SR 0073)

- Review of crash histories along the corridor.
- Evaluation of intersection sight distance for all un-signalized intersections (except driveways).
- Evaluation of all curves within the corridor to determine safe running curve advisory speeds.
- Spot Speed Limit Study along Greenwood Avenue between PA 309 and Church Road.

# GREENWOOD AVENUE (SR 2054) BETWEEN PA 309 AND CHURCH ROAD (SR 0073) CONT.

- Low-cost safety countermeasures – PennDOT will implement appropriate low-cost safety countermeasures (anticipated completion in spring 2022) such as enhanced pavement markings; signing; clearing sight obstruction (vegetation) within PennDOT right-of-way; slow curve marking legends; and speed limit legends along Greenwood Avenue between PA 309 and Church Road. PennDOT will also offer safety improvement recommendations the Township may wish to consider and potentially pursue, including but not limited to, those associated with pedestrians and traffic calming.

# WASHINGTON LANE (SR 2056) FROM CHELTENHAM AVENUE TO TOWNSHIP LINE ROAD

- Spot Speed Limit Study along Washington Avenue between Cheltenham Avenue and Township Line Road.

Note: A cursory review suggests certain segments of Washington Lane may be appropriate for a road diet (reduction from 4 lanes to 3) as a traffic calming measure and to help alleviate safety concerns at the Washington Lane / Ashbourne Road intersection (associated with the lack of left turn lanes on Washington Lane). If the Township is supportive, please inform PennDOT and it will further evaluate the feasibility of a road diet on Washington Lane.

# TRUCK RESTRICTIONS

- PennDOT recognizes the community's desire for changes to improve the quality of life and optimize safety for those living along Church Road and some other roads within Cheltenham Township.
- PennDOT supports these goals as well; however, trucks cannot be arbitrarily restricted from the use of public roads. The goal of most public roads is to accommodate all modes of traffic, as safely as possible.
- An engineering and traffic study, in accordance with PA Code 212.117, must warrant a truck restriction.
- Basically, truck restrictions can be warranted based on the reduced structural adequacy of the pavement (extremely rare), reduced structural adequacy of bridge (weight restrictions) or substandard geometric design of a roadway (most typical).

## TRUCK RESTRICTIONS CONT.

- PennDOT will conduct truck restriction studies based on geometric conditions on narrower state roads upon receipt of a letter from Cheltenham Township indicating the specific roads and limits for truck prohibitions.
- Prior to making any such request, the department encourages the township to fully consider the consequences should a restriction ultimately be approved.
- The standard truck restriction study performed by the department pertains to large trucks over 45 feet in length. Restrictions of trucks less than 45 feet in length tend to negatively impact school buses, transit buses, local delivery trucks and trash trucks.

## TRAFFIC RESTRICTIONS CONT.

**Based on cursory reviews of roadway geometry and crash histories, it does not appear that truck restrictions will be warranted on:**

- PA 73 Church Rd (Washington Lane to Willow Grove Avenue);
- Greenwood Avenue (PA 309 to Church Lane);
- Greenwood Avenue (Church Road to Township Line Road); and
- Washington Lane (SR 2056) (Cheltenham Avenue to Township Line Road)

**Based on cursory reviews of roadway geometry and crash histories, further study is recommended to determine if truck restrictions are warranted on:**

- Church Road (SR 2023) (Washington Lane to Old York Road); and
- Church Road (SR 2023) (Old York Road to Township Line Road)

***If the Township is supportive of further study for truck restrictions along Church Road (SR2023) between Washington Lane and Township Line Road, please inform PennDOT and it will proceed formally with an engineering and traffic study.***

# EXISTING DATA

- Only Annual Average Daily Traffic (AADT) volumes and Average Daily Truck Traffic (ADTT) can be provided through historical data that is typically collected by the Delaware Valley Regional Planning Commission (DVRPC) in the five-county Philadelphia region.
- Upon request, DVRPC may be able to collect traffic classification data (number of axles, not specific weight) – basically the types of trucks.
- DVRPC may also be able to collect directional traffic counts, which may be helpful towards better understanding traffic patterns. For example, the traffic volumes currently available for Church Road are non-directional (both ways combined).

# TRUCK NAVIGATION STUDY

- An effective truck navigation study will require origin/destination (O/D) data and travel time data on key corridors.
- The department does not collect or maintain such data, nor will such data typically weigh into whether or not a truck restriction is warranted based on the regulation.
- However, the O/D data may have some value towards improved guide signing.
- As mentioned previously, the DVRPC may have some data available that can be of some interest, but collecting O/D data requires significant effort, especially for the multiple corridors the township is interested in.

# TRUCK NAVIGATION STUDY CONT.

- Commercially available cell phone/GPS probe data may also be used for such a study, although it only represents a sample and needs to be extrapolated and calibrated against average annual daily traffic and classification counts to represent actual traffic patterns.
- If interested is interested in pursuing this approach, the department encourages the township to discuss this with the Montgomery County Planning Commission, which is receiving a copy of this correspondence.
- If the Montgomery County Planning Commission determines this to be a county priority, it can consider making a formal request of such a study to DVRPC for inclusion in its annual work program.

# GUIDING TRUCKS ELSEWHERE

- Pennsylvania Traffic Routes and the National Highway System - State Routes 309, 611 and 73 are numbered routes on the Pennsylvania state transportation map.
- These routes are also on the National Highway System (NHS). It is undesirable to arbitrarily discourage certain vehicles from using these traffic routes.
- The NHS serves interstate and interregional travel and provides connections to major ports, airports, public transportation facilities, and other intermodal facilities.
- The U.S. Secretary of Transportation does have the authority to modify the network at the request of the states to meet changing conditions and requirements.
- If Montgomery County and DVRPC are fully in support, NHS route modifications (including gaining a consensus on rerouting the PA route number onto other roads) can be pursued through a procedure that must go through FHWA for ultimate approval. Having O/D data can be helpful in determining optimal rerouting alignments.
- Please keep in mind that while changing the PA 73 routing may guide some traffic elsewhere, it does not change PennDOT's responsibility to follow the regulations along Church Road when considering truck prohibitions, speed limits, etc.

## GUIDING TRUCKS ELSEWHERE CONT.

- Please keep in mind that while changing the PA 73 routing may guide some traffic elsewhere, it does not change PennDOT's responsibility to follow the regulations along Church Road when considering truck prohibitions, speed limits, etc.
- Guide signs are not enforceable and there must be a reasonable indication of where trucks are destined to effectively guide them to their destinations.
- PennDOT's most notable example of pursuing something similar involved stone quarries in Bucks County.
- However, even when knowing the quarries to be either the origin or destination in one direction, a review of this effort suggests it was not considered particularly effective. This is something that can be considered on a smaller scale if O/D data becomes available, but expectations on compliance should be tempered.

# PEDESTRIAN SAFETY

- Some pedestrian recommendations will be made as part of the reviews being performed on Church Road and Greenwood Avenue.
- In accordance with the regulations, local municipalities may establish pedestrian crosswalks at non-signalized intersections with appropriate ADA accommodations, as well as additional enhancements such as the addition of Rapid Rectangular Flashing Beacons (RRFB).
- Many municipalities pursue grant programs to help fund low and moderate cost improvements of this nature.
- The Township may also initiate dialog with the Montgomery County Planning Commission for consideration of higher cost, capital improvement project ideas more suitable for inclusion on the Transportation Improvement Program (TIP) (e.g., the installation of a missing link sidewalk connections along Church Road.

# TRAFFIC CALMING (GENERAL)

- Some traffic calming recommendations will be made as part of the reviews being performed on Church Road and Greenwood Avenue.
- The most comprehensive solution to address safety concerns involves education, enforcement, and engineering countermeasures.
- Please refer to PennDOT's Traffic Calming Handbook (Publication 383) as a general reference for appropriate traffic calming strategies:

<https://www.dot.state.pa.us/public/pubsforms/Publications/PUB%20383.pdf>