NOV 19 2001

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
HARRISBURG, PENNSYLVANIA 17120

OFFICE OF
SECRETARY OF TRANSPORTATION

November 14, 2001

Honorable James W. Gerlach
Senate of Pennsylvania
177 Main Capitol Building
Harrisburg, PA 17120-3044

Dear Senator Gerlach:

Reference is made to your October 22, 2001 letter concerning the proposed traffic calming project in the Borough of Pottstown. Your letter requested that the project information be reviewed so that the Borough could move forward with its revitalization efforts.

After receipt of your letter, representatives from our Central Office Bureau of Highway Safety and Traffic Engineering and the local Engineering District 6-0 Office reviewed the information and met to discuss the project. From this meeting, it was determined that our office could support the traffic calming project if a few modifications are included. These modifications, indicated below, are discussed in detail in the remainder of this letter:

- Back-in angle parking evaluation
- Modification of bicycle lane widths
- Parking restrictions at specific locations
- Inclusion of "Back-In Parking Only" signs

Back-in angle parking evaluation
As indicated in the "Proposed High Street Traffic Calming Plan", Section 201.22 of 67 PA Code, Chapter 201, addresses the issue of angle parking. Although it does not differentiate between pull-in and back-in angle parking, we would agree that the information is intended to address pull-in angle parking. In fact, PENNDOT currently does not have a standard for back-in angle parking, and its use is new to Pennsylvania. Typically, whenever a new product or idea, such as back-in angle parking, is considered for use in Pennsylvania, an evaluation needs to be conducted. For this back-in angle parking project, we feel the evaluation should address areas such as:

- Crash analysis – How has the installation of back-in angle parking affected the crashes at the location? What are the types and severity of crashes?

- Capacity analysis – Has the reduction of the number of travel lanes adversely affected the overall capacity of the location?
- Effects on parking – Do the motorists understand the parking maneuver? Is there a large number of parking violations? Do motorists attempt a pull-in maneuver in lieu of the required back-in maneuver?
- Pedestrian and bicycles – How has the installation of back-in angle parking affected the safety and mobility of pedestrians and bicyclists?
- Sight distance – How is sight distance affected by back-in angle parking?
- Speed data – How have the traffic speeds been affected at the location?
- Traffic volumes – Have there been any changes in traffic volumes due to the roadway modifications?
- Design considerations – What design and operational factors need to be considered when considering future applications of this new concept?

Our Engineering District 6-0 has indicated a willingness to work with local officials in completing this effort.

Modification of bicycle lane widths
The current proposal for High Street includes the following lane configuration:

- Two 11-foot travel lanes
- Two 6-foot bicycle lanes
- A 10-foot turning lane
- An 8-foot parallel parking lane on the south side of High Street
- A 16-foot back-in angle parking area on the north side of High Street

This proposed lane configuration is 68 feet, which is identical to the existing roadway width. However, under the proposed configuration, it has been determined that vehicles parking in the back-in angle parking area will extend approximately 1'8" into the bicycle lane. In essence, this will reduce the overall width of the bicycle lane to 4'4", which is less than the 5-foot minimum required in PENNDOT's Design Manual, Part 2. Our recommendation would be to change the configuration to include two 5-foot bicycle lanes and an 18-foot back-in parking area. By reducing the bicycle lanes to 5 feet and using the 2 extra feet in the back-in angle parking area, parked vehicles will be less likely to extend into the bicycle lane. Incorporating this modification would change the lane configuration to the following:

- Two 11-foot travel lanes
- Two *5-foot* bicycle lanes
- A 10-foot turning lane
- An 8-foot parallel parking lane on the south side of High Street
- An *18-foot* back-in angle parking area on the north side of High Street

Parking restrictions at specific locations
The "Proposed High Street Traffic Calming Plan" indicates that there may be a few back-in parking spaces where there is a potential to hit poles, trees, or other objects.

We recommend that the location of obstructions (e.g., poles, trees, hydrants, benches, etc.) be reevaluated or consideration should be given to banning parking in these select areas. Doing so will reduce the potential for damage to the parking vehicle as well as the object behind the parking space. In addition, motorists may not back as far into these spaces to avoid potential damage, thus causing their vehicle to extend into the bicycle lane.

Inclusion of "Back-In Parking Only" signs
As previously indicated, the use of back-in angle parking is new to Pennsylvania. As a result, there is a potential for motorists to attempt incorrect parking maneuvers. For example, during off-peak conditions motorists may try to pull into, rather than back into the parking space. To help alleviate this concern, we recommend the addition of "Back-In Parking Only" signs or some other new standard sign as approved by our Department.

In addition to the conditions identified in this letter, PENNDOT will need to pursue Federal Highway Administration (FHWA) approval for the project if federal funding is used.

At this time, we also want to clearly indicate that our Department will require changes to the overall roadway configuration if the evaluation shows that this new parking concept creates operation problems or if it impairs motorist, pedestrian, or bicycle safety.

We trust that this letter addresses your questions pertaining to the High Street traffic calming project. We look forward to working with local officials on this project. If you have any additional questions, please do not hesitate to contact our local Engineering District 6-0 Office or our Central Office Bureau of Highway Safety and Traffic Engineering.

Sincerely,

Bradley L. Mallory
Secretary of Transportation