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September 28, 2018

Ms. Tracy Samuelson City of Bethlehem 10 E. Church Street Bethlehem, PA 18018

RE: Review # 2 Lehigh University

Bridge West Housing

Transportation Impact Study

Bethlehem, PA

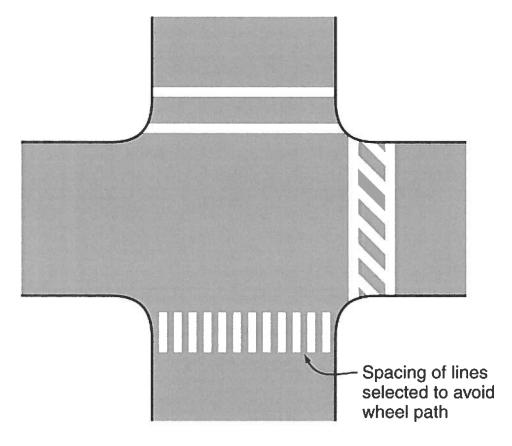
Benchmark Project No. 038060

## Dear Tracy:

Benchmark has reviewed the Transportation Impact Study Lehigh University - Bridge West Housing prepared by Langan Engineering & Environmental Services, Inc. Revised September 18, 2018. We offer the following comments.

1. The capacity analysis now includes the pedestrian volumes (as additional vehicles) in the operational analysis. This conservative analysis identifies a drop in the operational conditions from LOS C to LOS D at the Packer Avenue intersections with both Brodhead Avenue and Taylor Street during the PM peak hours. The existing crosswalk pavement markings (four at each intersection) at these two intersections are to be replaced with thermoplastic markings and pedestrian crossing signs (W-11-2 30"x30" and W16-7p 24"x12") are to be erected on each of the approaches to these intersections. The eight cross walks are to be striped with the pattern indicated on the bottom approach in the figure below which is from the MUTCD. The crosswalks and signs shall be added to the plans and be included in the Developer's Agreement indicating that Lehigh University is responsible for maintaining these crosswalk marking in thermoplastic.





- 2. The University Ave Striping Concept Plan has been revised to indicate the pedestrian stop bars as requested and is acceptable.
- 3. A detail of the proposed Speed Hump has been added to the plans as requested and is acceptable.

4. The response letter indicates that a future submission will address the previous review comment concerning the sight distance at the two proposed parking areas adjacent to the north and south buildings and at each of the pedestrian crossings of University Avenue. We look forward to receiving that submission with sufficient time for review prior to the October 11, 2018 Planning Commission meeting.

If you have any questions please do not hesitate to contact me.

Sincerely,

Peter A. Terry, P.E., PTOE, PMP

PAT/slc

Tiffany Wells c:

Darlene Heller