



ALBERT FEDERICO CONSULTING, LLC

Traffic Engineering and Mobility Solutions

133 Rutgers Avenue
Swarthmore, PA 19081

January 29, 2020

via email only

Russell Hatton, Chair
Westtown Township Planning Commission
1039 Wilmington Pike
West Chester, PA 19382

Re: Conditional Use - Traffic Review
Robinson Tract (aka Crebilly Farms) Development
Westtown Township, Chester County

Mr. Hatton:

As requested, a technical review of the following materials has been completed relative to the Westtown Township Zoning Ordinance as well as reasonable and customary standards of Traffic Engineering practice:

- Transportation Impact Study for the Robinson Tract (prepared by McMahon Associates, dated August 13, 2019, revised December 2, 2019)
- Conditional Use Subdivision Plan for the Robinson Tract, sheet 12 of 71 (prepared by ESE Consultants, dated August 9, 2019, revised November 22, 2019)
- Correspondence to Mr. Will Etheridge (prepared by ESE Consultants, dated December 2, 2019)

Please note that this review should be considered preliminary and subject to change based on the submission of revised materials to address the comments presented herein.

The site is located on the Crebilly Farm property along the west side of US Route 202, between West Pleasant Grove Road and PA Route 926 (Street Road). The applicant proposes to develop 317 new dwelling units. Vehicular access to the Crebilly Farms property is proposed via connections to PA Route 926 and West Pleasant Grove Road. Onsite vehicular circulation is proposed via a central Collector Road and supporting local roads, including several cul-de-sacs. Limited non-vehicular facilities are also proposed.

The following comments are offered for the Township's consideration:

1. *In consideration of conditional use approval, the Township may require the applicant to submit a development impact study which considers the impact of the proposed flexible development on traffic volume and safety. {§170-906.D(2)}*
 - a. To allow for consideration of the impact of the proposed development the Transportation Impact Study (TIS) should be revised to address the following:
 - i. As previously noted, Table 1 should be updated to identify West Pleasant Grove Road as a Township Collector Roadway. {*Westtown Township Comprehensive Plan Update, page 9-7*}.
 - ii. The sections of the TIS discussing improvements should note that the internal Collector Road provides access to the property.



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- iii. As previously noted, the Crash Summary only includes data for State "Reportable" collisions. In order to provide a more complete assessment of transportation safety within the study area "Non-reportable" collisions should be included. Note that the Traffic Safety Office is unaware of an outstanding request for "more detailed information". The applicant should resubmit the request to the Traffic Safety Office and Township Traffic Engineer, including the specific details being requested.
- iv. As previously noted, the scope of physical improvements required to provide acceptable sight distance to public roads should be clearly indicated on the plans.
- v. As previously noted, confirm that the sight distance measurements consider the widening (approximately seven feet) of West Pleasant Grove Road required to meet Code. *{§149-903.A(2)}*
- vi. Provide calculations supporting the assumed diversions associated with Orvis Way and the proposed Collector Road. Additionally cross-reference the Collector Road diversions within the body of the study with the figures in Appendix K.
- vii. The Travel Time Comparisons presented in Appendix K should be revised to address the following:
 - (1) Verify the assumed route lengths. The Diversion Routes generally appear to be shorter than the Base conditions.
 - (2) Ensure that the impacts of the regular queuing along US Route 202 North during the morning peak, extending from the interchange into the study area, is included.
 - (3) The evaluation of diversions should include an alternative that considers operations following the completion of the PennDOT improvements planned for US Route 202 and PA Route 926.
 - (4) The traffic calming anticipated to be installed along Bridlewood Boulevard should be considered.
- viii. As previously noted, the anticipated increase in larger vehicles traveling along West Pleasant Grove Road and turning to/from New Street increases the possibility of potential vehicular conflicts. It is noted that:
 - (1) The Applicant has indicated a willingness to widen the roadway along the property frontage, but additional clarification regarding the specific scope of work is warranted.
 - (2) West Pleasant Grove Road is designated as a Collector Road and the total Right-of-way shall be 60 feet and cartway width shall be 28 feet. *{§149-903.A(2)}*
- ix. As previously noted, the future operations presented for PA Route 926 and New Street rely primarily on "optimized" traffic signal timings that appear unlikely to be approved by PennDOT. Written confirmation from PennDOT should be provided that the assumed "optimized" timings can be implemented. If confirmation cannot be provided an alternative analysis utilizing a timing approved by the Township should be provided.
- x. As previously noted, the Cross Section Assumptions Exhibit for PA Route 926 and New Street in Appendix I is based on a traditional widening. Alternative alignments that minimize the number of properties from which right-of-way would be needed should be



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- considered. Additionally, the Applicant is not precluded from coordinating with property owners to determine if the right-of-way could be reasonably obtained.
- xi. As previously noted, Cost Estimates for necessary improvements to accommodate future traffic should be provided. {§149-804.A(10)}
 - xii. As previously noted, an Implementation Strategy for necessary improvements to accommodate future traffic should be provided. {§149-804.A(11)}
2. *The burden of proof shall be upon the applicant to prove to the satisfaction of the Board of Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund. {§170-2009.D(1)(h)}*
- a. The conclusion that the project does not adversely impact the intersection of US Route 202 and PA Route 926 continues to be based in large part on assumed diversions. As noted above, additional supporting information and analyses should be provided.
 - b. The Applicant has indicated that turn lanes will be provided to accommodate post development volumes at the following intersections, but these improvements are not reflected on the plans:
 - i. US Route 202 at Pleasant Grove Road – Southbound Right Turn
 - ii. PA Route 926 at New Street – Eastbound Left Turn
 - c. As previously noted:
 - i. Additional grading and/or traffic management measures appear warranted to enhance safety at the three accesses proposed to have insufficient sight distance or the exact minimum distance (with no margin for error):
 - (1) Collector Road at PA Route 926 (grading)
 - (2) Road M at West Pleasant Grove Road (grading and/or roundabout)
 - (3) Collector Road at West Pleasant Grove Road (grading and/or roundabout)
 - ii. In order to minimize external conflict points, promote internal connectivity, reduce the number of cul-de-sacs and enhance overall safety along West Pleasant Grove Road:
 - (1) Road M should be removed
 - (2) Roads L and N should be extended to form a single road
 - iii. The design of the internal Collector Road should incorporate suitable traffic calming measures to maintain a 35 mile per hour average travel speed.
 - iv. The submitted plans should be revised to ensure they accurately reflect existing driveways in the immediate vicinity of the site, in particular the exit-only driveway from the Westminster Presbyterian Church.
 - v. The plans should identify the anticipated limits of required right-of-way and/or easements to accommodate the physical improvements associated with the PennDOT project at US Route 202 and PA Route 926.



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- vi. The following internal roadways should be reconfigured to remove geometric irregularities:
 - (1) Road E and Road F (provide a curve)
 - (2) Road F and Road G (provide a curve)
 - (3) Road I and Road J (remove the jog within the intersection)
- vii. Additional facilities should be provided to address non-vehicular connectivity, including:
 - (1) A perimeter trail around the portion of the site west of the internal Collector Road. {*Westtown Township Comprehensive Plan Update, page 9-15*}
 - (2) Connections to existing and planned facilities along Dunvegan Road and within the Arborview neighborhood. {*Westtown Township Comprehensive Plan Update, page 9-15*}
 - (3) Sidewalks along proposed roads, including accessible crossings. {*§149-916*}
 - (4) Connectivity to pedestrian attractors, including Stetson Middle School, Westminster Presbyterian Church, and the existing retail uses at US Route 202 and PA Route 926. {*§149-916*}
- viii. Provisions should be made for future access from the Westminster Presbyterian Church to the internal Collector Road.
- ix. Provisions should be made for School Bus Stops, including short-term parking for drop-off and pick-up.

Please do not hesitate to contact me at 610.608.4336 or albert@federico-consulting.com should you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Federico', written over the typed name.

Albert Federico, P.E., PTOE