



**GILMORE & ASSOCIATES, INC.**  
ENGINEERING & CONSULTING SERVICES

**MEMORANDUM**

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**Date:** August 27, 2013

**To:** Steve Norcini, P.E.  
Radnor Township Public Works Director

**From:** Amy Kaminski, P.E., PTOE  
Transportation/Traffic Services Manager

**cc:** Roger Phillips, P.E.  
Gannett Fleming, Inc., Senior Project Engineer

**Reference:** Darby-Paoli Road  
Ardrossan Farm West Conditional Use Application –  
Transportation Impact Study and Land Development Review

G&A : 13-07018.02

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Pursuant to your request, Gilmore & Associates, Inc. has completed a transportation review of the referenced Conditional Use application for Ardrossan Farm for the applicant, ESIII LP. The applicant intends to develop a 27.65 acre parcel into six (6) residential lots. Gilmore offers the following for Radnor Township consideration:

**I. REVIEWED MATERIALS**

- A. Application of Conditional Use Approval of a Density Modification Development for 27.65 Acres of Ardrossan Farm, dated August 5, 2013, prepared for ESIII LP, prepared by Saul Ewing, LLP
- B. Ardrossan Farm-West Parcel Transportation Impact Study, dated July 26, 2013, prepared for ESIII LP, prepared by Traffic Planning and Design, Inc.
- C. Conditional Use Plan (5 Sheets), dated July 31, 2013, prepared for ESIII LP, prepared by Momenee & Associates, Inc.

**II. REVIEW COMMENTS**

**A. APPLICATION**

- 1. The conditional use application cover letter identifies a total of six (6) parcels will be developed into single-family homes.

2. The application does not generate any transportation comments

## B. TRANSPORTATION IMPACT STUDY

1. During the scoping discussion with the Township Traffic Engineer, it was unclear that the project involved two separate projects and two transportation impact studies would be prepared. It would be more efficient to provide one transportation impact study and include all information for both land development sites. We recommend the applicant revise the East Ardrossan TIS to include all information for the West Ardrossan (Wheeler Field) in a single submission addressing all comments as indicated in this review letter and the East Ardrossan Farm review letter. This would provide a comprehensive analysis for both development parcels and provide the quantitative impact to the analyzed intersections.
2. The TIS provides the following roadway improvements:
  - a. The TIS was based on traffic counts obtained in mid-July, 2013 outside of the typical school year for public, private and post-secondary schools. The report indicates the traffic counts will be verified with spot counts post-Labor Day.
  - b. The report indicates that the applicant should discuss with the Township, potential safety improvements along the roadways in the vicinity of the site.
  - c. Construct a new access to Darby-Paoli Road, in accordance with applicable PennDOT standards.
3. Scope of Study:

Although the report discusses the studied roadways, information regarding the studied intersections, lane widths and traffic control measures were not included in the discussion. The report should be revised to include this useful information.
4. Crash Data Investigation:

PennDOT Publication 46 *Traffic Engineering Manual*, requires both reportable and non-reportable incidents in a crash analysis. In addition, the minimum criteria for mitigation is for a **continuous 12-month period**; the TIS crash analysis excludes non-reportable crashes and quantifies the number of crashes by calendar month as opposed to a 12-month period. The report must be modified to include the required non-reportable records and analyzed for a continuous 12-month period. In addition, all crash reports must be provided electronically to the Radnor Township engineering staff for verification of the crash analysis.

5. Sight Distance: PennDOT Publication 46 *Traffic Engineering Manual*, Chapter 11 *Traffic Studies* indicates that if an engineering study has determined that the 85<sup>th</sup> percentile speed of the roadway is higher than the posted speed limit, the 85<sup>th</sup> percentile speed may be used at the discretion of the Engineering District. The 85<sup>th</sup> percentile speed of Darby Paoli Road is unknown; therefore is uncertain if the posted speed limit should be utilized for the sight distance calculations. We recommend the applicant obtain the 85<sup>th</sup> percentile speed of Darby-Paoli Road and verify the existing sight distance is adequate. The presented calculations were based on the posted speed limit.

6. Trip Distribution Discrepancies:

The Trip Distribution must be revised and developed by Time of Day and movement to provide a distribution that closely reflects the typical AM and PM fluctuations in vehicular movements at intersections.

C. CONDITIONAL USE PLAN SET (35 Sheets)

PennDOT will require a Highway Occupancy Permit (HOP) application for the proposed access to Darby-Paoli Road (S.R. 1015). The Township requests the opportunity to review all HOP plan submissions to PennDOT; as well as be given the opportunity to attend all meetings with PennDOT and carbon copied on all correspondence regarding the same. We encourage the applicant begin early discussions (sketch plan phase) with PennDOT to alleviate future costly design revisions.

D. FINDINGS

§280.145.C-E, G, I: The reviewed documents were incomplete and do not provide sufficient information to conclude the proposed development will not be detrimental to the safety, health, and general welfare of Radnor Township.

If you have any questions regarding the above, please contact this office.