

# WESTTOWN TOWNSHIP

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www.westtownpa.org

May 19, 2023

VIA EMAIL

Gregg I. Adelman, Esq. Kaplin Stewart Attorneys at Law Union Meeting Corporate Center 910 Harvest Drive, Suite 200 Blue Bell, PA 19422

Re: Stokes Estate Flexible Residential Development – 927 Shiloh Road, 1007 Shiloh Road, 1011 Shiloh Road, and 1013 Shiloh Road Conditional Use Application

Dear Mr. Adelman:

The Township is in receipt of a conditional use application for the properties located at 927 Shiloh Road, 1007 Shiloh Road, 1011 Shiloh Road, and 1013 Shiloh Road, known as the "Stokes Estate", submitted by the applicant, Fox Clearing, LLC on May 3, 2023. The application is to construct a residential development consisting of 85 single-family detached homes pursuant to the Flexible Development Procedure. The properties, with tax ID #s 67-2-7.1, 67-2-8, 67-2-9, and 67-2-13, are 80.886 acres combined and are zoned R-1 Residential. The properties, with tax ID #s 67-2-9 and 67-2-23 are included on the Westtown Township Historic Resources Map. The applicant is proposing to preserve a total of 47.60 acres of open space on the property, some of which is constrained by steep slopes, wetlands, and areas within the 100-year floodplain, as well as multiple stormwater management facilities. A two-branch pipeline easement also runs east/west through the property. The property has frontage along Shiloh Road, and the proposed development would include two roadway connections to Shiloh Road at the intersections with Oakbourne Road and Hunt Drive. The applicant is proposing the use of public water and public sewer.

This letter shall serve as a review of the application to determine its overall completeness prior to commencing the conditional use process per Chapter 170 Section 2009 of the Westtown Township Zoning Code. The following items were received by the Township:

- 1. Amended Conditional Use Application and application fees, dated May 4, 2023;
- 2. Amended Conditional Use Application Addendum with Exhibits A through F, dated May 4, 2023:
  - A. Property deed for 67-2-23 and redacted agreements of sale for 67-2-8, 67-2-9 and 67-2-7.1
  - B. Conditional Use Plan Set (sheets 1-37) prepared by DL Howell & Associates, dated April 14, 2023;
  - C. Agua America will-serve letter, dated April 12, 2023;

- D. Sanitary sewer capacity letter from Westtown Township, dated April 13, 2023
- E. Traffic Impact Study and Crash Analysis dated May 2021, last revised April 2023;
- F. Template for the future homeowners' association declaration.
- 3. Elevation Renderings;
- 4. Conservation Design Plan (sheets 1-2) prepared by DL Howell & Associates, dated April 14. 2023:
- 5. Preliminary Stormwater Management Report prepared by DL Howell & Associates, dated March 17, 2023.

Pursuant to the standards for conditional use applications articulated in the Township Zoning Code §170-2009, **the Township considers the application generally complete**, but requests additional information to address deficiencies, to provide clarification on calculations for open space and bonus density to demonstrate intent and compliance to the Planning Commission and the Board of Supervisors.

1. §170-2009.B(3)(d) requires the application to include sufficient information, e.g., preliminary site grading and road profiles, preliminary stormwater management analysis, etc., to preliminarily determine compliance with the Township natural feature, site analysis, conservation design process (if applicable) and density requirements.

# Applicant shall address all below-mentioned items as they relate to providing sufficient information to determine compliance with this requirement.

 §170-2009.B(6) requires in addition to demonstrating compliance with all standards applicable to the conditional use being requested, the site plan to show the applicant's intentions with regard to strong consideration shall be given to incorporation of LEED (Leadership in Energy and Environmental Design) certified building design principals recommended by the US Green Building Council.

Applicant shall provide a narrative and/or plan notes addressing this requirement.

### Conservation Design (§170-1617)

3. Legend items included on the left side of sheets 1 and 2 of the Conservation Design Plan are not depicted on the plans.

# Applicant is recommended to limit legend items to those depicted on the plans for clarity purposes.

4. §170-1617.C(1)(a) requires that the wetlands shall be based upon a professional analysis, with identification of the individual who completed such analysis in accordance with § 170-401B of this chapter.

## Conservation Design Plan is lacking such detail.

5. §170-1617.C(1)(b) requires that the delineation of one-hundred-year floodplains shall be based upon official floodplain mapping or a more accurate professional analysis in accordance with § 170-401C of this chapter.

### Conservation Design Plan is lacking such detail.

6. §170-1617.C(1)(c) requires that other important existing resources on the site shall be added to the map, including woodlands, tree lines, large specimen trees over 18 inches in trunk diameter, scenic views from inside the site, ridgelines, and scenic views from existing streets and trails. These resources are known as "secondary conservation areas."

Conservation Design Plan does not depict clear boundaries of woodlands and tree lines, location of large specimen trees over 18 inches in trunk diameter, and scenic views from inside the site and existing streets and trails. The precise delineation of primary and secondary conservation areas is important to determine whether the application meets the requirements of §170-1617.C(2) pertaining to limitations on intrusion of land development activities and associated land disturbance into such areas. Applicant shall incorporate details of above-noted secondary conservation areas into the Conservation Design Plan map and calculations table and adjust relevant plan sheets appropriately.

7. §170-1617.C(1)(c)[1]-[5] further provides for additional items to be included on the map, or an accompanying map, including locations and descriptions of existing buildings, with a description of any historic architectural significance of each, if any.

Conditional Use Plan set includes locations and descriptions of existing buildings, but does not provide a description of any historic architectural significance for historic resources located at 1013 Shiloh Road and 927 Shiloh Road, which have been identified and mapped by the Township's Historical Commission as sites of local historic value. Applicant shall provide such descriptions in the written narrative and/or plan notes.

8. §170-1617.C(1)(d) requires the open space areas to be interconnected.

Conservation Design Plan displays several pockets of open space within the tract area that are not fully interconnected and limited by proposed building lots and roadways. Applicant shall revise the plan to ensure open space interconnectivity.

9. §170-1617.C(2) requires that potential development areas shall not include any primary conservation areas, except that minor intrusion into primary conservation areas for land development purposes may be permitted where otherwise permitted in accordance with Article IV of this chapter [Natural Features Protection] or to provide for regulated activities permitted by the Commonwealth, i.e., permitted stream or wetland crossing or other encroachment. Potential development areas also shall be delineated so as to minimize intrusion into secondary conservation areas. Land development activities and associated land disturbance shall not be permitted within more than 50% of secondary conservation areas, except where this standard is modified at the discretion of the Board of Supervisors as a condition of preliminary or final subdivision/land development plan approval or conditional use approval as applicable. In consideration of modification of this standard, the Board shall consider the nature of the intended land use and the anticipated scope of land disturbance normally associated with such use, as well as any planning or design measures proposed by the applicant to mitigate any environmental, aesthetic, or other community impacts resulting from land disturbance within secondary conservation areas.

Conservation Design Plan shall include calculations verifying that proposed land development activity and associated land disturbance is not within more than 50% of secondary conservation areas. Applicant shall provide such calculations, which will also address comment #6.

10. §170-1617.C(3)(b) requires the applicant to provide a written and graphic analysis of how the proposed development will respect and incorporate the important resources of the site and be coordinated with resources, open space/trail corridors and views on surrounding properties. This may involve an overlay map that shows important natural features and proposed development.

# Applicant shall include such analysis to show compliance with the requirement and to supplement the provided plan set.

# Density Standards (§170-904)

- 11. §170-904.A(3) requires that in addition to all other applicable standards of this chapter, conditional use approval for any flexible development utilizing bonus density in accordance with §170-904A(2) shall be subject to compliance with the following standards and criteria unless modified at the discretion of the Board of Supervisors; the applicant shall submit plan(s), narrative and graphic material(s) as necessary to adequately demonstrate compliance with these standards.
  - Applicant shall provide a written narrative detailing justification for minimum required open space and bonus open space calculations and supplement that with a site plan showing all primary and secondary conservation areas, designated common open space areas and recreational areas.
- 12. §170-904.A(3)(a)[2] requires all open space used incrementally toward calculation of bonus density as provided in § 170-904A(2)(a) shall, in addition to full compliance with all other applicable standards herein, fully exclude from calculation of open space area any existing or proposed impervious surfaces, stormwater management facilities, wetlands, water bodies, watercourses, prohibitive slope (including created slopes exceeding 25%), and any lands subject to floodplain regulations.
  - Conditional Use Plan set provides a table with calculations (sheet 6) for required minimum common open space and bonus open space with specific exclusions, however, the table does not address proposed impervious surface for trails and potential impervious surface associated with future recreational areas.
- 13. §170-904.A(3)(b) requires that historical landscapes and scenic views within or across any tract subject to flexible development shall be protected to the greatest extent practicable, and introduced landscaping, utilizing predominantly native vegetation and replicating landscape features characteristic to Westtown and its environs, shall be used to mitigate scenic impacts of development from public roads and neighboring residential properties where such views shall be altered by proposed development, grading, or other improvements necessary to accommodate proposed development.

# Applicant shall provide written narrative and/or graphic analysis addressing this requirement.

- 14. §170-904.E(1) requires sufficient yard areas to be set aside and designated on the plan for single-family detached dwellings, so that on an average throughout the development the maximum net residential density for single-family detached housing areas shall not exceed four units per acre of tract area designated for such use and the acreage set aside for common open space right-of-ways of public streets shall not be used for computation of net residential density for any residential use.
  - Conditional Use Site Plan set does not show calculations for common open space right-of-ways of public streets. Several building lots will have small yard areas preventing property owners to construct additional improvements, such as patios, decks and sheds, which will unlikely meet the existing setback requirements.
- 15. §170-904.E(11) requires that single-family detached dwellings, and uses accessory thereto, shall be a minimum of 50 feet, and all other structures shall be a minimum of 100 feet, from the property lines of the tract. Landscaping shall be required in these boundaries, regardless of the use being proposed.

Landscaping provides a visual buffer between the higher-density housing of the proposed development and neighboring areas of lower-density residential housing. Proposed lots 1-8 depicted on the Conditional Use Plan set are encumbered by the 50 foot tract boundary setback, which would greatly limit the yard use and future improvements. Applicant shall reconsider the general layout of these lots to allow for greater setback to accommodate future improvements.

# Design Standards (§170-905)

16. §170-905(1) requires a site analysis to include various items, including but not limited to historic resources, including structures, ruins, sites, traces, and relationship to the bounds of any National Register historic district; scenic views; and all lands visible from any adjacent public road. Visibility shall be measured as viewed from a height of four feet above the surface of the road looking in any direction or angle across the subject property, and shall be based on winter conditions (whether actual or estimated at the time of inventory) when existing vegetation offers the least obstruction of view. Areas predominantly obscured from view may be excluded from inventory of visible lands subject to Township approval.

Applicant shall indicate the historic resources and their classifications as designated by the Historical Commission on the Westtown Township Historic Resources Map, scenic views as per §170-1617.C(1)(c) and all lands visible from any adjacent public road on the site analysis plan.

17. §170-905(2) requires that the applicant shall demonstrate the means whereby trees and other natural features shall be protected during construction.

Applicant shall provide a written narrative and/or plan notes to indicate compliance with the requirement.

# Development Impact Study (§170-906)

18. §170-906.D authorizes the Township to require the applicant to submit a development impact study which considers the impact of the proposed flexible development on natural and cultural resources, including all items identified in the site analysis submitted in accordance with § 170-905A(1); traffic volume and safety; and the provision of municipal services and the burden on taxpayers in making provision thereof, including, but not limited to, sewers, water, fire safety and police.

Township staff recommends such impact study to be prepared and submitted to the Township by the applicant to demonstrate the extent of impacts of the proposed flexible development on elements as described above.

### Open Space Standards (§170-907)

19. Conditional Use Plan set (sheet 1) provides a reference to open space calculations found on drawing no. C01.5 (sheet 5).

### Referenced table is located on drawing no. C01.6 (sheet 6).

20. Open Space #4 referenced in the table on the Conditional Use Plan set (sheet 6) is not depicted on the plan. Furthermore, Conditional Use Plan set (sheet 36) references "O.S. Parcel" in the table which is not indicated on the plan.

### Applicant shall ensure consistency between the items in the table and map labels.

21. §170-907.A(1) requires that the open space shall be laid out to the satisfaction of the Board in accordance with the best principles of site design, and shall be consistent with

the intent of the Township's Comprehensive Plan and Parks, Recreation and Open Space Plan.

# Applicant shall provide a written narrative addressing this requirement.

- 22. §170-907.A(2) requires that within the acreage of open space or elsewhere on the tract, an area equivalent to at least 10% of the net tract acreage shall be suitable and available to serve the particular recreational needs of the residents of the development. §170-907.A(5)(c) further requires recreation area to be designated for a specific recreational use, including by way of example tennis, swimming, playfields, and totlots. Such areas shall be located and maintained in such manner as not to create a hazard or nuisance and shall perpetuate the proposed use.
  - Conditional Use Plan Set (sheet 6) displays an area totaling 6.61 acres as suitable for active recreation, however, no details are provided on how this area will be used, maintained and/or accessed for recreational purposes. Applicant shall provide additional details on the plan set and/or in a written narrative.
- 23. §170-907.A(5)(e) requires that the plan shall designate areas used for subsurface infiltration or land application (irrigation) of stormwater and/or treated wastewater. Open storage or settling ponds may be included where accessory to infiltration facilities. All other stormwater and wastewater facilities may be physically located in open space areas but shall be excluded from measurement of the minimum required open space.
  - Preliminary Stormwater Management Report includes the following permanent BMPs proposed for the developed site area: vegetated swales, infiltration basins/beds, forebays and level spreaders. Applicant shall verify with the Township engineer whether these BMPs shall be excluded from the minimum required open space calculations.
- 24. §170-907.A(7)(c) requires, as deemed appropriate by the Board, that areas of common open space shall be provided with sufficient perimeter parking when necessary, and with safe and convenient access from adjoining public road frontage or other rights-of-way or easements capable of accommodating pedestrian, bicycle, and maintenance and vehicle traffic, and containing appropriate access improvements. Areas required for parking may be included in calculating the minimum acreage required for open space.
  - Conditional Use Plan does not provide detailed information to show compliance with this requirement. Applicant shall note appropriate access details and sufficient perimeter parking for common open space areas on the plan set. If appropriate, table with calculations for common open space areas shall be revised to reflect any changes.
- 25. §170-907.A(7)(e) requires common open space to be free of all structures, except those related to outdoor recreational use.
  - Conditional Use Plan set (sheet 36) notes that historic home open space parcel is included as part of the required minimum common open space; however, the parcel includes a house.
- 26. §170-907.A(7)(f) requires common open space areas to be suitably landscaped by retaining existing natural cover and wooded areas and/or by a landscaping plan which is consistent with the purposes of this article and which minimizes maintenance costs.
  - Conditional Use Plan set does not address the retaining of natural cover and/or wooded areas nor it provides any details on the maintenance costs. Applicant

shall provide additional information on the plan notes and address the retention of specific areas.

Historic Preservation (§170-2400)

27. Township understands that it is the applicant's intent to demolish several existing structures on the lot. The properties with tax ID #s 67-2-23 and 67-2-9 are included in the Historic Resources Map as sites of local historic value. The Historic Commission has the opportunity to work with the property owner to document the property prior to the issuance of any demolition permit per the standards of Article XXIV in the Township Zoning Code.

We highly encourage the applicant to grant permission to the Historical Commission to photograph and document all historic structures existing on the lot prior to demolition.

Please address items as applicable listed above. If you have any further questions, please feel free to contact me.

Thank you,

Liudmila Carter

Director of Planning & Zoning

Mila Causer

Cc: Jon Altshul – Westtown Township Manager

Patrick McKenna, Esq. – Westtown Township Solicitor

Bill Briegel – Applicant (Fox Clearing, LLC)



May 26, 2023

Liudmila Carter, Director of Planning & Zoning Westtown Township P.O. Box 79 Westtown, PA 19395

Dear Mila:

Subject: Stokes Estate

This office has received plans for the above subject project. This is the second submission to Carroll Engineering Corporation for this project, and upon review, we offer the following comments:

### A. SUBMISSION

- 1. "Conditional Use Plans for the Stokes Estate" prepared by DL Howell & Associates for Fox Clearing, LLC. The current plan submission consists of 37 sheets dated March 17, 2023, with no revision.
- 2. Various conditional use documents not reviewed by this office.

#### B. GENERAL

- 1. The plan proposes the construction of 85 single-family homes on four existing parcels acre parcel (UPI 67-2-23, 67-2-9, 67-2-8, 67-2.7.1). There are also five (5) open space parcels to be created.
- 2. The project is located at 1013 Shiloh Road in the R1 Residential District.
- 3. Planning modules have been submitted to the Department of Environmental Projection of 68 units. The planning module must be revised for the final number of lots.
- 4. Sanitary sewer service will be provided by a pump station in the development. Wastewater will be pumped to Shiloh Road, and then South in Shiloh Road to Plumly Road and a gravity sewer extension to the Township's existing sewer system in Farm Lane (Bayard Rustin High School entrance road). Wastewater will be conveyed by the Bayard Rustin Pump Station to the Chester Creek Wastewater Treatment Plant for treatment.

## Today's Commitment to Tomorrow's Challenges

Liudmila Carter, Director of Planning & Zoning Westtown Township Page 2 May 26, 2023

- 5. Sewers are proposed in the open-space parcel adjacent to lot 66. An easement is required for the sewers if the Township will not own the open space.
- 6. A lateral is provided for the house at 1007 Shiloh Road. The lateral crosses the open-space parcel behind lots 16 and 17 and through lots 17 and 18. Lateral easements in favor of 1007 Shiloh Road are required.
- 7. Gravity sewer service is proposed for all lots except lots 25 31. Pressure sewers and grinder pumps are proposed for these lots.
- 8. The pump station is located on an unnumbered lot next to lot 14. Consideration should be given to locating the pump station southeast of Infiltration Basin #1 to provide gravity sewer service to all the lots.
- 9. There is insufficient detail to determine if the proposed sewer layout is optimal for the proposed development or to provide a detailed review. No sewer profiles or pump station details are included on the drawings.
- 10. Consideration should be given to providing sewer access to the adjacent Foley (1009 Shiloh). Sewer service can also be provided to properties along the northwest boundary of the project.

Should you have any questions or require additional information, please feel free to contact this office.

Very truly yours,

CARROLL ENGINEERING CORPORATION

William N. Malin, P.E.

Vice President

WNM:cam

cc: Cedarville Engineering Group

Fox Clearing, LLC

DL Howell & Associates



# WESTTOWN

TOWNSHIP

1039 Wilmington Pike West Chester, PA 19382 610—692-1930 email: administration@westtown.org Post Office Box 79 Westtown, PA 19395 FAX 610-692-9651 www.westtownpa.org

26 May 2023

Jon Altshul Township Manager

RE: Conditional Use Application, Fox Clearing, LLC Stokes Estate

Jon,

I've reviewed the plans for Fox Clearing, LLC, Stokes Estate, and I have some concerns from a fire suppression standpoint.

Access: I have concerns about the limited access to the development. I understand from the plan that there are two access options from Shiloh Road, but if some significant incident affected Shiloh Road, that would impact access to that development. My suggestion is to add an access point restricted for use by the Fire and Police Department on the north side of "Road C" off Shiloh Hill Drive; a gate should secure this access point and or chain restricting access by the public. I realize this may not be possible, but from a fire protection standpoint, the "one way in and one way out" of development this size is very concerning and can become problematic for first responders.

Fire Hydrants: Due to the complexity of the proposed roadways, fire hydrants should be installed approximately 700 feet away from each other, starting at each entrance and one in each cul-de-sac. I've mapped out 18 fire hydrants on the proposed roadways about 700 feet apart. I am more than happy to share my map with the developers.

Address: Roads A, B, C, and D should have different names, and Road B should be split into North Road B and South Road B using the interaction of Road A as the middle point. It would also be beneficial at the intersection of Road A and Road C; a sign should be installed to show street number ranges, such as an arrow indicating left for addresses 1 to 12 and a right for addresses 13 to 20. I suggest the same for Road B at the intersection of Road A. It is paramount for first responders to locate the address quickly, and at night, that can be a challenge.

Thank you for addressing my concerns; I look forward to further discussing this project.

Respectfully Submitted,

Gerald DiNunzio, Jr Township Fire Marshal



June 6, 2023

Jon Altshul, Township Manager Westtown Township 1039 Wilmington Pike West Chester, PA 19382

RE: Stokes Estate
Conditional Use Review
Westtown Township
WTT-21-228

Dear Mr. Altshul,

As requested, Cedarville Engineering Group, LLC (CEG) has completed a review of the Conditional Use Application for Stokes Estate. The site (UPI#s 67-2-23, 67-2-8, 67-2-9, and 67-2-7.1) comprising of roughly 81 acres, is located on the eastern side of Shiloh Road in the R-1 Residential Zoning District of Westtown Township. The project includes: the demolition of existing structures, the construction of a Residential Subdivision consisting of 85 single family homes, a roadway, public sewer, drainage systems and infiltration BMPs to manage the increased impervious coverage. The applicant is proposing to develop the referenced parcel under Article IX of the Westtown Township Zoning Ordinance, Flexible Design Procedure. This procedure is subject to approval as a Conditional Use, per Section 170-902.A of the Westtown Township Zoning Ordinance.

The following information was received by our office on May 5, 2023:

- A. Aqua PA "Will Serve" letter dated April 12, 2023.
- B. Preliminary Stormwater Management Report dated March 17, 2023.
- C. Architectural renderings and floor plans, undated.
- D. Traffic Impact Study dated May 2021 and last revised April 2023.
- E. Westtown Township Conditional Use Application dated May 4, 2023.
- F. Letter from Westtown Township Public Works certifying sufficient capacity for sewage treatment dated April 13, 2023.
- G. Full size Plan titled "Existing Resources Plan" prepared by DL Howell and Associates, Inc., consisting of 2 sheets (1-2 of 2) dated March 17, 2023.
- H. Draft/Sample Declaration of Planned Community dated December 23, 2020.
- I. Full size Plan titled "Conditional Use" prepared by DL Howell and Associates, Inc., consisting of 37 sheets (1-37 of 7) dated March 17, 2023.





- J. Amended Addendum to Conditional Use Application dated May 4, 2023.
- K. Cover letter dated May 4, 2023, prepared by Kaplin-Stewart, Attorneys at Law.
- L. Copy of property deeds.

CEG has reviewed the above referenced items as they pertain to the Conditional Use Application only. This review shall not be considered a Subdivision/Land Development review. Subdivision and Land Development review shall be completed upon Westtown Township's receipt of a complete Subdivision and Land Development Application packet.

The referenced documents have been reviewed for compliance with Chapter 170 - Zoning Ordinance and Chapter 149 - Subdivision and Land Development Ordinance, as applicable to the Conditional Use Application.

The following comments are offered for your consideration.

# ZONING COMMENTS (WESTTOWN TOWNSHIP CODE, CHAPTER 170, ZONING):

1. Section 170-901.A - Applicability of flexible development procedure. For purposes of this article, the flexible development procedure is defined as applying to: Land under single ownership, planned and development as a whole.

A copy of the Title Report or applicable documentation shall be provided to clarify ownership rights (fee simple, easement) associated with the Buckeye Laurel Pipeline and Enterprise rights-of-way which cross the tract.

2. Section 170-902.C.(2) - The site shall be suitable for development in the manner proposed without hazards to persons or property, on of off the site, from probability of flooding, erosion, subsidence or slipping of the soil, or other dangers, annoyances, or inconveniences. Condition of soil, groundwater level, drainage and topography shall be appropriate to both kind and pattern of use intended.

Section 170-402.D.(2 - Uses permitted in areas of prohibitive slope. The following are the only uses permitted as of right in areas of prohibitive slope. Such uses shall be in compliance with the base zoning district, and shall not involve the erection of buildings, construction of streets, installation of sewage disposal systems, or permanent removal of topsoil.

Section 170-402.D.(2)(a) - Parks and outdoor recreational uses, consistent with the goal of watershed protection.

Section 170-402.D.(2)(b) - Logging and woodcutting, where such activity is limited to highly selective removal of trees. Maximum precautions shall be taken to avoid destruction of or injury to understory brush and trees.





Section 170-402.D.(2)(c) - Grading for the minimum portion of a driveway necessary to access a sing-family swelling when it can be demonstrated that no other routing which avoids slopes exceeding 20% is feasible.

Section 170-402.D.(2)(d) - Yard area of any permitted building, so long as such building is itself not within the prohibitive slope area. The yard area may not be disturbed by grading clearing.

The following shall be addressed:

- Prohibitive slopes exist directly to the north of Lot 22. A retaining wall is being proposed
  within Lot 22 and the adjacent open space to avoid Prohibitive Slope encroachment. The
  configuration of Lot 22 shall be revised so that the retaining wall is located completely
  within the Open Space, with ownership and maintenance being the responsibility of the
  Homeowners Association.
- A conveyance swale is proposed to the north of Lots 73-75, terminating at a proposed inlet and storm sewer located between Lots 72 and 73. Immediately downslope of this inlet, and upslope of a proposed swale to the north of Lots 70-72, an area of Prohibitive Slopes exists where no conveyance swale is proposed. The applicant shall address how conveyance of upslope flow to the rear of Lot 72 will be conveyed away from the Lot, without the need for encroaching on the Prohibitive Steep Slopes.
- 3. Section 170-902.C.(2) The site shall be suitable for development in the manner proposed without hazards to persons or property, on or off the site, from probability of flooding, erosion, subsidence or slipping of the soil, or other dangers, annoyances, or inconveniences. Condition of soil, groundwater level, drainage and topography shall be appropriate to both kind and pattern of use intended.

Section 170-402.D.(3).(f) - If the total of all area(s) of precautionary slopes on a lot exceed 25% of the total area of a lot, then no more than 50% of the precautionary slopes on that lot shall be disturbed, graded, or modified.

The applicant shall provide supporting information for the following lots, in tabular form, to demonstrate compliance with the above Ordinance criteria:

- Lot 16
- Lot 22
- Lot 27
- Lot 65
- Lot 71
- Lot 72
- Lot 73
- Lot 74
- 4. Section 170-902.C.(2) The site shall be suitable for development in the manner proposed without hazards to persons or property, on of off the site, from probability of flooding,





erosion, subsidence or slipping of the soil, or other dangers, annoyances, or inconveniences. Condition of soil, groundwater level, drainage and topography shall be appropriate to both kind and pattern of use intended.

Section 170-1612.A(3)(a)[1] - Unless otherwise approved by the Board of Supervisors upon recommendation of the Township Planning Commission, surface land uses affiliated with transmission pipelines and all supporting equipment and structure shall be set back a minimum of 750 feet from residential building and all commercial, industrial and institutional uses or a minimum of 500 feet from the nearest lot line.

The Zoning Officer shall provide confirmation that the transmission lines contained within the Buckeye/Laurel and Enterprise rights-of-way do not contain surface land uses.

5. Section 170-403.E - Where wetlands exist and disturbance permits and/or mitigation activities are required, final plan approval or granting of applicable permits from the Township shall be contingent upon the applicant receiving all necessary permits from the PADEP.

Acquisition of the referenced permits is appropriate at the time of Land Development application.

6. Section 170-902.C.(2) - The site shall be suitable for development in the manner proposed without hazards to persons or property, on of off the site, from probability of flooding, erosion, subsidence or slipping of the soil, or other dangers, annoyances, or inconveniences. Condition of soil, groundwater level, drainage and topography shall be appropriate to both kind and pattern of use intended.

Section 170-405.A - In any use or development of a tract where permanent open space is to be created and/or retained, the landowner or applicant shall, whenever possible and in conjunction with other applicable ordinances, include in such open space those agriculturally suited soils whose acreage, configuration, and location offer future opportunity for agricultural use.

Section 170-405.B - In the siting of individual structures on lots, areas of agriculturally suited soils should be left free of structures or paving whenever possible, to allow opportunities for gardens and other agricultural uses.

A Plan shall be provided, showing the proposed lot and improvements layout, with agriculturally suited soils (GdB, GdC) shaded.

7. Section 170-901.D - Comprehensive and detailed plans which include not only streets, utilities, lots or building sites, and the like, but also site plans, site analyses, floor plans and elevations for all buildings as intended to be located, constructed, used and related to each other, detailed plans for other uses and improvements on the land as related to the buildings, lighting, landscaping; and





Section 170-901.E - A program for provision, operation and maintenance of such areas, improvements, and facilities as will be for common use by some or all of the occupants of the development, but will not be provided, operated or maintained at general public expense unless acceptable to or found necessary by the Board of Supervisors.

The Open Space Plan (sheet 6) shall be revised to clearly show improvements associated with active recreation areas, along with maintenance requirements associated with proposed passive open space areas.

8. Section 170-904.A.(3).(a).[1] - All open space used toward calculation of compliance with minimum open space requirements shall comply with all applicable standards separately from any additional open space that is utilized toward calculation of bonus density.

Section 170.904.A.(3).(a).[2] - All open space used incrementally toward calculation of bonus density as provided in § 170-904A(2)(a) shall, in addition to full compliance with all other applicable standards herein, fully exclude from calculation of open space area any existing or proposed impervious surfaces, stormwater management facilities, wetlands, water bodies, watercourses, prohibitive slope (including created slopes exceeding 25%), and any lands subject to floodplain regulations.

Section 170-907.A.(5).(e) - The plan shall designate the use of common open space, the type of maintenance to be provided, and a planting plan or schedule. In designating use and maintenance, the following classes may be used. Areas used for subsurface infiltration or land application (irrigation) of stormwater and/or treated wastewater. Open storage or settling ponds may be indued where accessory infiltration facilities. All other stormwater and wastewater facilities may be physically located in open space areas but shall be excluded from measurement of the minimum required open space.

Section 170-907.A.(7).(a) - The following design standards, as deemed appropriate by the Board, shall apply to areas of common open space. Such areas Not less than 75 feet in width at any point and not less than 1/2 acre of contiguous area.

Section 170-907.A.(7).(d) - The following design standards, as deemed appropriate by the Board, shall apply to areas of common open space. Such areas shall be: Undivided by any crossing of public or private roads, except for proper traffic circulation, and then only upon recommendation of the Township Engineer and Planning Commission.

Section 170-201 - RIGHT-OF-WAY - A strip of land acquired by reservation, dedication, prescription, or condemnation, and intended to be occupied or occupied by a road, cross walk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary or storm sewer, and other similar uses, generally the right of one to pass over the property of another.





The following shall be addressed:

A sixty (60) foot wide Buckeye/Laurel Pipeline right-of-way and a fifty (50) foot wide Enterprise right-of-way encompass portions of Open Space Open Space Areas B1, B2, and B3. The following shall be provided:

- The Township Solicitor shall determine whether the ownership and maintenance responsibilities associated with these rights-of-way can be transferred to the Homeowners Association, and therefore whether these areas can be applied to qualifying open space.
- If the Township determines that these areas can be applied to Open Space, correspondence shall be provided by Buckeye/Laurel Pipeline and Enterprise as to any requirements associated with their right-of-way, acknowledgement as to the proposed use of the Open Space, and acknowledgement that maintenance will be the responsibility of the Homeowners Association.
- Per the Stormwater Management Calculations, the above ground portion of the stormwater management facilities shall be used to manage and comply with the Stormwater Peak Rate Control Requirements, Section 144-308 of the Township's Stormwater Management Ordinance. The above ground portion of these facilities shall therefore not be considered accessory to the infiltration facility, unless the infiltration facility is designed to accommodate the appropriate volume required to comply with the referenced Ordinance section.
- The following information shall be shown on the Open Space Plan to demonstrate compliance (1/2 acre or more and minimum 75-foot width) with the above referenced criteria, in the following areas:
  - The area of the portion of Open Space B2 adjacent to Roads A and C, and Lots
     32 and 33, to the north of the cross hatched area behind Lots 28-32.
  - o The width of the portion of Open Space B2, to the east of Lot 34, south of the cross hatched area and north of the area shaded as "Area Suitable for Active Recreation".
  - o The widths of Open Space areas B4 and B6, adjacent to Shiloh Road, shall be dimensioned to demonstrate compliance.
- The portion of "Required Minimum Common Open Space" located along the north side of Road B shall be excluded from qualifying open space.
- 9. Section 170-904.A.(2).(a) For every 5% of the gross area of the tract that is permanently preserved as common open space above the minimum established under § 170-904C below and meeting the criteria of § 170-904A(3), the maximum density may be increased by 0.075 dwelling units per acre. For example, if 50% of the gross area of a tract in the R-1 District proposed to be developed for single-family detached dwellings is provided as common open space, representing an addition of two increments of 5% each (40 + 5 + 5), then the maximum density may be increased to 1.25 dwelling units per acre (1.1 + 0.075 + 0.075).

Bonus density calculations shall be revised to exclude the applicable areas as referenced in comment #8 above.





10. Section 170-904.A.(3).(c).[2] - Collectively, in addition to compliance with the design criteria for stormwater management set forth in Chapter 149 of the Code of the Township of Westtown, the design of stormwater management facilities across the tract subject to flexible development shall result in groundwater infiltration of stormwater equal in volume to the incremental increase of the two-year storm, predevelopment to postdevelopment. For purposes of calculating the predevelopment volume of the two-year storm, predevelopment land cover conditions shall be assumed to be woodland-good for any area predominantly under cover of trees and meadow-good for any other area, regardless of actual cover conditions. The applicant shall be required to submit soil percolation test results and other credible evidence including a maintenance program satisfactory to demonstrate long-term feasibility of required groundwater infiltration. Where groundwater infiltration of the full incremental volume of the two-year storm is not practicable, the Township may require employment of other means to mitigate potential groundwater impacts.

### The following shall be addressed:

- The "Change in Runoff Volume for 2-Yr Storm Event" worksheet on page 9 of 270 within the report shall be revised as follows:
  - o To include all areas of woods as woodland.
  - o To revise the proposed meadow condition to lawn.
- The following shall be provided to support the preliminary stormwater volume controls:
  - o BMP details for each proposed BMP with outlet structures.
  - o Basin 2 Infiltration Volume Calculations (17/270) within the report shall be verified and revised as it notes only 3,956 CF of volume while the Structural BMP Volume Credits for DP2 (13/270) notes 33,072 CF of volume.
  - o Basin 4 Infiltration Volume Calculations (19/270) within the report shall be verified and revised to have a permanent storage volume consistent with the lowest outflow elevation of the Pond Report for Basin 4 (68/270).
- 11. Section 170-904.D.(1) The application for conditional use approval covers the entire flexible development and shows the location and approximate time of construction for each stage, in addition to other information required by this chapter.

The plans shall clearly indicate if the applicant intends to phase the development. If phasing is to be proposed, the applicable phasing shall be shown on the plan.

12. Section 170-904.E.(8) - Routes for vehicular and pedestrian access and parking areas shall be convenient without creating nuisances or detracting from privacy.

The Township Planning Commission and Board of Supervisors shall evaluate the need for sidewalks on both sides of Roads A, C, and D. Based upon the density and lot locations proposed, CEG recommends providing sidewalks on both sides of these roads.

13. Section 170-904.E.(10)(b) - No single-family detached dwelling or twin dwelling may be erected within 30 feet of any other structure.





The distance between the proposed dwelling on Lot 14 and the proposed pump station shall be dimensioned to demonstrate compliance with the above referenced Ordinance section.

14. Section 170-905.A - Conservation design. Any flexible development shall comply with the provisions of § 170-1617. In addition, the natural features protection standards contained in Article IV of this chapter shall be applicable to any flexible development and to any lot created within a flexible development.

Section 170-1617.C.(1).(c).[3] - Approximate location of areas with a seasonally high water table, based upon the Soil Survey for Chester and Delaware Counties or a more accurate professional analysis.

The soils legend on sheet 7 shall be revised to indicate which soils have a seasonally high water table.

15. Section 170-905.A.(3) - Stormwater management: The applicant shall submit a proposed stormwater management plan, to be approved by the Township Engineer in accordance with Chapter 149, Subdivision and Land Development. In addition, the Board may require the submission of a study of the off-site and overall groundwater impacts of the proposed stormwater management system.

Section 144-202 - CONVEYANCE - A natural or man-made, existing, or proposed stormwater management facility, feature or channel used for the transportation or transmission of stormwater form one place to another. For the purposes of this chapter, "conveyance" shall include pipes, drainage ditches, channels, and swales (vegetated and other), gutters, stream channels, and like facilities or features.

Section 144-202 - EASEMENT - A right of use granted by a landowner to allow a grantee the use of the designated portion of land for a specified purpose, such as for stormwater management or other drainage purposes.

Section 144-704.A.(2) - Easements shall be established in connection with any regulated activity for all permanent BMPs and conveyances that will not be dedicated to or otherwise owned by the municipality (including any to be located on any property other than the property being developed by the applicant), and shall be in general conformance with the form easement agreement which can be obtained from the Township Solicitor. This agreement shall: Include a ten-foot-wide perimeter (or other width as determined in consultation with the Municipal Engineer) surrounding the feature(s);

Section 144-704.B.(6) - For any BMP or conveyance to be owned by a person other than the municipality or the landowner owing the parcel upon which a MP or conveyance is located, an easement agreement shall be prepared and executed between the landowner and the owner of the BMP or conveyance which shall; Restrict the landowner's use of the easement





area of the parcel on which the BMP or conveyance is located, consistent with the rights granted to the owner of the BMP or conveyance

Section 170-1505.G - No fence or wall shall be constructed on a property within the existing or future right-of-way of a street, nor in any location that would obstruct a permanent easement.

Conveyance swales and storm sewer not located within right-of-way to be dedicated to Westtown Township will be the responsibility of the Homeowners Association. A minimum, twenty (20) foot wide easement or ten (10) feet to a single side shall be provided for the following conveyance swales:

- Conveyance swale in the rear yards of Lots 1-12, conveying flow to Basin #1.
- Conveyance swale in the rear of Lots 15-22, conveying flow to the inlet located on the property line of Lot 21 and 22.
- Storm sewer run from the inlet on the Lot 21/22 property line to the right-of-way of Road A.
- Storm sewer run along the Lot 13/14 property line.
- Conveyance swale in the rear yards of Lots 23-27, conveying flow to Basin #2.
- Storm sewer within the rear yard of Lots 23-26.
- Conveyance swale in the rear yards of Lots 28-33.
- Storm sewer run within Lot 58.
- Storm sewer run along the Lot 37/38 property line.
- Conveyance swale within the rear yard of Lots 58-64, conveying flow to the inlet within Lot 58.
- Conveyance swale within the rear yard of Lots 53-57.
- Conveyance swale within the rear yard of Lots 40-52, conveying flow to Basin #3.
- Storm sewer run within the rear yard of Lots 72-74 (lines shown, shall be labeled).
- Conveyance swale within the rear of Lots 68-76.
- Storm sewer run along the Lot 68/69 property line (line shown, shall be labeled).
- Storm sewer run along the Lot 68 property line abutting Open Space.

# The following shall be addressed:

- Lot areas shall be revised to exclude the above referenced easements.
- The locations of the proposed dwellings shall be modified as applicable to not encroach within the referenced easements.
- 16. Section 170-905.B.(1) Streets: Streets within a flexible development shall be related to land use and to adjacent street systems, and shall be designated as secondary traffic street (arterial), collector street, or local street depending upon its function. Streets shall be designed in accordance with the terms of Chapter 149, Subdivision and Land Development; provision for the maintenance of such streets shall be an essential part of the plan for the development.





Section 149-901.F - The length of a cul-de-sac shall be a minimum of 350 feet and a maximum of 1,500 feet. Any proposed cul-de-sac longer than 1,500 feet must be approved by the Board upon recommendation of the Township Engineer. In no case shall any cul-de-sac street serve more than 25 dwelling units. Cul-de-sac length shall be measured from the radius of the cul-de-sac turnaround to the edge of paving/curbline of the closest through street.

Section 149-201 - CUL-DE-SAC - A minor street with access at only one end and which is terminated by a vehicular turnaround.

# The following shall be addressed:

- The length of the cul-de-sac, from the Road A intersection with Road B, to the end of the northern portion of Road C, exceeds the maximum length required per the above referenced Ordinance. The length of the northern portion of Road C shall be decreased to comply with this requirement.
- If it is the applicant's intent to provide a connection from the proposed northern cul-desac bulb of Road C to existing Shiloh Hill Road, the applicant shall provide supporting information demonstrating that the Shiloh Hill Road right-of-way currently extends to the northern tract boundary of the subject tract.
- If the above can be adequately demonstrated, the applicant will be required to complete the roadway extension between Road C and Shiloh Road. Supporting information shall be provided to demonstrate that this connection complies with the horizontal and vertical geometry criteria set forth in Sections 149-905 and 149-906 of the Subdivision and Land Development Ordinance.
- 17. Section 170-905.B.(2) Parking: Parking for all uses within the flexible development shall be in accordance with the requirements of Article XVII of this chapter.

Section 170-1705.A.(1) - Single-family and two-family dwellings: Three parking spaces for each dwelling unit. The Board of Supervisors may require that a street include sufficient paved width to allow on-street parking along one or both sides of the street if determined to be necessary to meet parking needs.

Section 149-903. A.(3) - Minor street. Right-of-way shall be 50 feet and cartway width shall be 24 feet. See Notes 1 and 2.

NOTE 1: Additional right-of-way and cartway widths may be required by Westtown Township for the purpose of promoting the public safety and convenience, or to provide for parking in commercial and industrial areas and in areas of high-density residential development.

NOTE 2: At the sole discretion of the Township Supervisors, the right-of-way of a minor street may be reduced to 40 feet and the cartway width of a minor street may be reduced to 20





feet for properties of one acre or more. Turnaround paved cartway of cul-de-sac streets shall not be reduced.

### The following shall be addressed:

- Dimensions shall be provided on the "Typical Single-Family Detached Lot" to demonstrate that the minimum parking stall dimensions set forth in Section 170-172 can be accommodated without a vehicle encroaching into the roadway right-of-way.
- The applicant shall address whether on-street parking is to be proposed and the limitation associated with on-street parking.
- 18. Section 170-905.E Lighting: As required by § 170-1514. In particular, adequate lighting must be provided to the outdoor areas used by residents after dark. Appropriate lighting fixtures must be provided for walkways and to identify streets, steps, ramps, directional changes, and signs. Lighting shall be located to avoid shining directly into habitable room windows of dwelling units within the development, or into private yard areas associated with dwelling units. The requirements for lighting may be waived by the Board where density of development may not justify its use.

Section 170-1514.D.(3).(e) - Lighting proposed for use after 11:00 p.m., or after the normal hours of operation for commercial, industrial, institutional or municipal applications, shall be reduced by 75% from then until dawn, unless supporting a specific purpose and approved by the appropriate officers or agent of the Township.

Section 170-1514.D.(3).(f) - All illumination for buildings and/or surrounding landscapes for decorative, advertising or aesthetic purposes is prohibited between 11:00 p.m. and sunrise, except that such lighting situated on the premises of a commercial establishment may remain illuminated while the establishment is actually open for business, and until one hour after closing.

Section 170-1514.D.(3).(h) - In no case shall the intensity of illumination exceed 0.1 horizontal, and 0.1 vertical footcandles. Horizontal footcandles shall be measured at grade. Vertical footcandles shall be measured line-of-sight, five feet above grade at the property line.

Section 170-1514.D.(3).(k) - For land development applications where lighting is required (i.e., zoning hearings, conditional use hearings), the credentials of the expert in outdoor lighting shall be described in writing. If the expert testimony is provided by more than one person, the credibility of each expert may be weighed by the Township.

### The following shall be addressed:

- Lighting shall be revised on the cul-de-sac bulb at the northern portion of Road C (sheet 32) to reduce footcandles to 0.1 at a maximum.
- A note shall be added to sheet 34 specifying if the street lighting is proposed after 11 PM. No other lights shall be permitted after 11 PM.
- The credentials of the outdoor lighting consultant shall be provided to the Township.





19. Section 170-905.F - Landscaping: Landscaping shall be regarded as an essential feature of every flexible development. In addition to maximum preservation of the existing vegetation of the site, careful attention shall be given to landscaping of parking areas and provisions of street trees as required by this chapter, specifically § 170-1507, and Chapter 149, Subdivision and Land Development.

Section 170-1507.B - Any use or activity proposed as part of a subdivision or land development shall further comply with the requirements for shade trees, street trees, and other landscaping components stipulated in Chapter 149, Subdivision and Land Development.

Demonstration of compliance with the requirements set forth in Section 149-925 and the above referenced Ordinance section is appropriate at the time of Land Development Plan application.

20. Section 170-907.A.(2) - Within the required acreage of open space, or elsewhere on the tract, an area equivalent to at least 10% of the net tract acreage shall be suitable and available to serve the particular recreational needs of the residents of the development. The Board may require that all, or a portion of, this recreational area be suitable for active recreation, and may further require that such area be prepared and developed for such purposes.

Section 170-907.A.(3) - Where applicable or deemed appropriate or contained in the Township's Comprehensive Plan or Parks, Recreation and Open Space Plan, provision for pedestrian trails for public and/or private use shall be provided. This provision need not be in addition to the 10% requirement of Subsection  $\underline{A(2)}$  above unless the Board determines that the entire 10% minimum must be designated for active recreation.

The applicant shall clearly note the areas proposed for active recreation and the improvements to be provided as part of these areas, subject to the approval of the Township Planning Commission and Board of Supervisors.

### **GENERAL COMMENTS**

21. On Sheet 6, Open Space 4 is not labelled.



Stokes Estate Conditional Use Review WTT-21-228



Future plan submissions may warrant additional plan comments. Please do not hesitate to contact me with any questions.

Best Regards, Cedarville Engineering Group, LLC

Robert E. Flinchbaugh, P.E. Senior Municipal Engineer

cc: Mila Carter, Director of Planning and Zoning, Assistant Township Manager <a href="lcarter@westtown.org">lcarter@westtown.org</a>
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### ALBERT FEDERICO CONSULTING, LLC

### Traffic Engineering and Mobility Solutions

133 Rutgers Avenue Swarthmore, PA 19081

June 7, 2023

via email only c/o Liudmila Carter, Assistant Township Manager

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

**Re:** Stokes Estate (Fox Clearing, LLC) Conditional Use - Traffic Review

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:

- <u>Conditional Use Plans for Stokes Estate</u> (sheets 1-5, 12-27, 35-37 only) prepared by DL Howell, dated March 17, 2023
- <u>Stokes Estate Residential Project Traffic Impact Study</u>, prepared by Transportation Resource Group, Inc., dated May 2021, revised April 2023

The applicant is proposing to develop eighty-three new residential dwelling units east of Shiloh Road (TR 626), generally opposite Oakbourne Road (TR 359). Vehicular access is proposed via two new street connections to Shiloh Road: opposite Oakbourne Road and opposite of Hunt Drive (TR 546). On-site circulation is proposed via new internal streets and sidewalks. The plan also includes four cul-de-sacs.

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 following comments are offered for the Township's consideration:

#### **Conditional Use Plans**

- 1. PennDOT stopping sight distances should be provided at the intersections of Road "A" and Shiloh Road; and Road "D" and Shiloh Road {§149-908C}. The Shiloh Road Sight Distance Analysis (sheet SD-1.1) should be revised to address the following:
  - a. Include a centerline profile of Shiloh Road and evaluate the available sight distance for vehicles turning left from Shiloh Road into the proposed development.
  - b. Provide a speed study supporting the assumed travel speeds.
  - c. Ensure that the assumed grades are measured at the beginning of the braking distance.



### ALBERT FEDERICO CONSULTING, LLC

- 2. A continuous collector street and trails shall be developed as part of the development to provide internal through connection as required by the Board of Supervisors.  $\{\S170-503C(3)\}$ 
  - a. As submitted, Road "A", "B", "C" and "D" do not provide a continuous collector street.
  - b. The site is proximate to several proposed trails and a recommended bike route. The Alternative Site Plans (sheets C1.01A and C1.01B) included with the submitted materials illustrate several potential trails and connections. It is recommended that the Board considers requiring easements to provide a future connection to proposed trails to the east and south of the property as illustrated in the Trails and Bikeways Map of the Township Comprehensive Plan.
- 3. The following issues may be addressed at Land Development but are noted here as the resolution could impact the overall number of proposed dwellings:
  - a. Shiloh Road is classified as a Collector; the Board may require dedication of an additional five feet of right of way along the site frontage. {§149-903C.1}
  - b. Road "C" should be revised to provide the required level areas approaching the intersection of Road "A". *{§149-907E}*
  - c. Road "A", between "B" and "C", and Road "B", between "A" and "D", do not meet the minimum block length. *{§149-913B}*
  - d. Sharp horizontal curvature should not be introduced near the bottom of a steep grade approaching or near the low point of a pronounced sag vertical curve. Road "A" (STA 8+98 to 15+30) and Road "D" (STA 8+73 to 12+33) should be revised to eliminate the overlapping curves using the minimum (150') horizontal radius and rate of curvature.
  - e. Consistent with <u>A Policy on Geometric Design of Highways and Streets</u>, Table 3-36 (Design Controls for Sag Vertical Curves) the minimum Design Rate of Vertical Curvature is 37.0.
  - f. As presented, the northern edge of cul-de-sac "C" is ~5' higher than the existing grade. Provide additional information demonstrating that the adjacent retaining wall along the northern edge of the cul-de-sac can be constructed without encroaching into the adjacent property (Vanscovich Parcel 67-20-20.6).

### **Traffic Impact Study**

- 4. The future condition analyses assume that the traffic signal at Shiloh Road/Westtown-Thornton Road and Street Road is re-timed, reducing green times along Street Road (a PennDOT designated Critical Corridor) in favor of minor approaches. It is recommended that the Board consider a condition requiring the Applicant to contribute to the re-timing of the signal as assumed in the Study.
- 5. Traffic counts must be completed between April and November. {§149-804A(3)g} There is no objection to the Applicant requesting a Waiver as part of the Land Development application.



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With respect to subject Conditional Use Application, 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.  $\{\S170-2009.D(1)(h)\}$ 

Based on the preceding, the Applicant has not demonstrated compliance with the conditional use criteria in  $\S 170-2009.D(1)(h)$ , most notably relative to:

- o Sight distance for vehicles entering the property via left turns from Shiloh Road.
- o Internal roadways with undesirable combinations of horizontal and vertical curvature.

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

Sincerely,

Albert Federico, P.E., PTOE