



Civil Engineers, Surveyors & Land Development Consultants

April 21, 2021

Westtown Township
John Altshul, Township Manager
1039 Wilmington Pike
West Chester, PA 19395

**Re: Sawmill Court
Preliminary/Final Land Development
Response to Cedarville Review letter dated April 15, 2021
Inland Design Project No. 11541
CEG Project No. WTT-20-414**

Mr. Altshul:

We are in receipt of the review letter from Cedarville Engineering Group (CEG) dated April 15, 2021, for the above referenced project. Based on the comments contained in that letter we have revised the plans and offer the following responses:

Erosion and Sediment Control Comments:

1. Section 80-5.C – An improvements plan at the same scale as the topographical survey showing and describing all changes to the site, including cuts, fills, structures, paving and utilities:
 - The berm associated with Sediment Trap 2 shall be extended to the accommodate the drainage area as shown on the Erosion and Sedimentation Control Plan.
The Berm for Sediment Trap 2 has been extended as required.
2. This comment has been satisfactorily addressed.

No response required.

Stormwater Management Comments:

3. This comment has been satisfactorily addressed.

No response required.

4. Section 144-301.J – For all regulated activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated activities (i.e., during construction) as required to meet the purposes and requirements of this chapter, to meet the erosion and sediment control requirements of the municipality, if applicable, and to meet all requirements under Title 25 of the Pa. Code and the Clean Streams Law.

The information referenced in above Comments #1 and #2 shall be provided.

See responses for Comment # 1 and #2.

5. Section 144-301.K – The design of all BMPs and conveyances shall incorporate sound engineering principles and practices in a manner that does not aggravate existing stormwater problems as identified by the municipality. The municipality reserves the right to disapprove any design that would result in construction in an area affected by existing problem(s) or continuation of an existing stormwater problem(s).

The following shall be addressed:

- Product specifications and maintenance requirements for the proposed MKB “Growsock” are to be provided on the Plans. The following items from the above comment remain applicable:
 - Because the filter sock is to be utilized as a permanent improvement, the specifications shall note the internal fill, longevity, material and chemical properties of the filter sock. The berm shall be designed to fully contain runoff and not permit water to flow through, as would be the intent of filter sock used for erosion and sedimentation control purposes. The above specifications shall be approved by Westtown Township prior to consideration of Final Plan approval.
 - Maintenance requirements shall be applied which shall clearly state the frequency of inspections and the immediate steps to be taken in the event of failure.

Additional filter sock specifications have been added as requested. The intent of the filter sock is to prevent bypass flow from the existing inlets. As such, while the sock proposed is somewhat permeable (it is not possible to have fully impermeable sock that also promotes vegetative growth), it will still slow any overland flow and direct the water to settle into the inlets. Any water that passes through the compost sock would be minimal and would be travelling at a very reduced speed. Once the seeding has been established, this pass through should be minimal.

The Operation and Maintenance requirements are included on Sheet 9 in the Long Term BMP Operations and Maintenance Procedures.

6. Section 144-301.P(2)– Additional water quality requirements. The municipality may require additional stormwater control measures for stormwater discharges to special management areas, including, but not limited to: Any water body or watershed with an approved total maximum daily load (TMDL), Specifically Goose Creek Watershed. Total phosphorous is the assigned TMDL pollutant to Westtown Township within the Goose Creek Watershed, including but not limited to:

- [1] Rain gardens/bioretenion.
- [2] Constructed wetlands.
- [3] Permanent compost filter sock.
- [4] Water quality inlet filter.

Section 144-305.G)– The municipality may require additional water quality and runoff control measures for stormwater discharging to special management areas such as those listed in Section 144-301. P.

The comments referenced in Comment 5 shall be addressed.

See responses to Comment 5.

- 7. This comment has been satisfactorily addressed.
No response required.
- 8. This comment is no longer applicable.
No response required.
- 9. This comment has been satisfactorily addressed.
No response required.
- 10. This comment has been satisfactorily addressed.
No response required.
- 11. This comment has been satisfactorily addressed.
No response required.
- 12. This comment has been satisfactorily addressed.
No response required.
- 13. This comment has been satisfactorily addressed.
No response required.
- 14. This comment has been satisfactorily addressed.
No response required.
- 15. This comment is no longer applicable.
No response required.
- 16. This comment has been satisfactorily addressed.
No response required.

17. This comment has been satisfactorily addressed.

No response required.

18. This comment is no longer applicable.

No response required.

19. This comment has been satisfactorily addressed.

No response required.

20. This comment has been satisfactorily addressed.

No response required.

21. This comment is no longer applicable.

No response required.

22. This comment is no longer applicable.

No response required.

23. This comment is no longer applicable.

No response required.

24. This comment is no longer applicable.

No response required.

25. This comment is no longer applicable.

No response required.

26. This comment is no longer applicable.

No response required.

27. Section 144-402 – The SWM site plan shall consist of a general description of the project including items described in § 144-304, calculations, maps, and plans. A note on the maps shall refer to the associated computations and erosion and sediment control plan by title and date. The cover sheet of the computations and erosion and sediment control plan shall refer to the associated maps by title and date. All SWM site plan materials shall be submitted to the municipality in a format that is clear, concise, legible, neat, and well organized; otherwise, the SWM site plan shall not be accepted for review and shall be returned to the applicant.

The reference notes shall be revised to include the most recent revision date.

The PCSM Plan and Report and the Erosion Control Plan and Report have been revised to include notes referencing one another including the latest revision date.

28. This comment has been satisfactorily addressed.

No response required.

29. This comment has been satisfactorily addressed.

No response required.

30. Section 144-402.G – Inspections, operation, and maintenance requirements. The following documents shall be prepared and submitted to the Township for review and approval as part of the SWM site plan, in accordance with the requirements of Article VII, for each BMP and conveyance included in the SWM site plan (including any to be located on any property other than the property being developed by the applicant);
- 1) An O&M plan.
 - 2) An O&M agreement.
 - 3) Any easement agreements that are needed to ensure access, inspection, maintenance, operation, repair and permanent protection of any permanent BMP(s) and conveyances associated with the regulated activity.
 - 4) Any written deed, deed amendment or equivalent document (if needed) to be recorded against a subject property, as shown on the SWM site plan maps or plan sheets, or recorded plan sheets for the purpose of protecting and prohibiting disturbance to a BMP or conveyance; and
 - 5) Written approval, easement agreements, or other documentation for discharges to adjacent or down- gradient properties when required to comply with § 144-301G and Article VII of this chapter.

Section 144-701.D - General Requirements for protection, operation and maintenance of stormwater BMPs and conveyances - For any BMP or man-made conveyance (including any to be located on any property other than the property being developed by the applicant) to be owned by a person other than the Township:

- 1) An O&M agreement shall be submitted to the Township for review and approval; and
- 2) The O&M plan shall be attached to, incorporated within, and recorded as a public record along with a fully executed O&M agreement, all of which shall be recorded as a restrictive covenant that runs with the land and shall be binding upon the landowner and any heirs, administrators, successors in interest or assigns of the landowner.

A Stormwater Management Operation & Maintenance Agreement will need to be executed and recorded for the proposed stormwater BMPs, to include all BMPs shown on the PCSM Plan. The O&M Agreement shall be provided by Westtown Township upon approval of the Plan. The applicable signatures included under the Stormwater Management Operation & Maintenance Statement, Sheet 1, must be signed by the property owner prior to recording. The Operation & Maintenance Agreement shall be recorded concurrently with the Land Development Plan.

The O&M Agreement shall be amended and re-recorded as required upon the applicant's conveyance of open space to the Homeowners Association.

The applicant will execute the Stormwater Management Operation and Maintenance Agreement after the plan has been approved and prior to plan recording.

SALDO Comments:

31. This comment has been satisfactorily addressed.

No response required.

32. Section 149-600.C – If the preliminary plan and all supporting data comply in all respects with the requirements for final plans (see Article [VII](#)), the Township may, in the case of small subdivisions involving no new streets or limited development of land, proceed to final action at the first consideration of the plan if a written request for final approval is made by the applicant and agreed to by the Board of Supervisors..

The applicant has requested a waiver from submission of a Preliminary Plan. CEG defers consideration of this waiver request to Westtown Township.

CEG defers consideration of this waiver request to Westtown Township. If this waiver is to be considered, CEG recommends that the applicable comments noted in this letter be addressed prior to consideration of final plan approval

The planning commission has indicated a willingness to recommend this waiver and the applicant is proceeding with the waiver request at this time.

33. This comment has been satisfactorily addressed.

No response required.

34. Section 149-602.B.(10) – Location and ownership of all existing sewer lines, water lines, fire hydrants, utility transmission line, culverts, bridges, railroads, water courses, trees, wetlands (or certification that are not present), soils, easements, rights-of-way and other significant man-made or natural features within the proposed subdivision and within 50 feet from the boundaries of the propose subdivision.

The following shall be provided pertaining to the referenced easements:

- The easement and associated storm sewer shall be shown to limits of the easement where it coincides with the right-of-way for Trellis Lane.

The easement and storm sewer have been shown to the existing right of way of Trellis Lane.

35. This comment has been satisfactorily addressed.

No response required.

36. This comment has been satisfactorily addressed.

No response required.

37. This comment has been satisfactorily addressed.

No response required.

38. Section 149-903.A(3)– Collector Street Right-of-Way shall be 60 feet and cartway width shall be 28 feet.

CEG defers to the Westtown Township Traffic Engineer regarding required widening along South Concord Road.

This issue is addressed in the response letter to the Traffic Engineer review.

39. This comment has been satisfactorily addressed.

No response required.

40. This comment has been satisfactorily addressed.

No response required.

41. Section 149-915.K – Driveway Design Requirements.

Section 149-915.K(1) – The grade of the driveway within 20 feet of the pavement edge or the curbline of the public road, Township or state, shall not exceed 4%. The maximum grade permitted beyond this point is 15%. Vertical curves shall be used a change of grades exceeding 5%.

Section 149-915.K(2) – Width of driveway within the legal right-of-way of the public road shall be at least 10 feet and shall be nine feet within the property line. Adequate turnaround surface shall be provided on the property so egress to the street is in a forward direction. Where the grade of the driveway exceeds 10%, at least on level parking space shall be provided just within the property line for emergency parking.

Section 149-915.K(4) – Discharge of roof drains or downspouts onto the driveway which slopes toward the street shall not be permitted. No drainpipe for any basement sump pump, foundation drain, disposal field, terrace, roof or pavement shall be discharged onto the public right-of-way.

The following shall be provided:

- Slope direction arrows shall be checked and revised where required, to ensure the arrow coincide with the direction of flow.

- Building roof drain locations shall be revised to correspond to the Drainage Areas shown on the “Inlet Drainage Area Plan”, as provided in the Stormwater management Calculations. The following lots have roof areas within multiple drainage areas with only one roof drain shown, and shall be revised:
 - o Lot 8
 - o Lot 11
 - o Lot 13
 - o Lot 15
 - o Lot 19

Slope arrows have been revised to point in the direction of flow.

The lots in question ones where the front half of the building is going to the street and the rear half is going to the rear yard. Roof drain arrows have been added for the rear yard downspouts as well. It is assumed that the roof drains from the rear of all buildings will be directed to the rear yards. Note 13 in the PCSM Plan Notes (Sheet 8) has been updated to indicate this.

42. Section 149-916 – Sidewalks and paths. Sidewalks, bike paths and other paths may be required to be installed at the discretion of the Board of Supervisors upon the recommendation of the Planning Commission

Section 149-916.A – All materials entering into the construction of sidewalk and the method of construction and installation shall be in accordance with PennDOT Specification Publication 408, except that the compacted thickness of the aggregate bed shall be four inches. Sidewalk across driveways and driveway aprons shall be constructed with six inches of concrete reinforced with six-by-six s1.4 by s1.4 welded wire fabric place two inches from the finished surface. Sidewalks shall have a minimum width of four feet and be located four feet behind the curbline unless approved otherwise.

Section 149-916.B – Sidewalks at intersections shall be constructed to provide for handicapped access.

Section 149-916.C – Details and specification for the construction of bike paths and other paths shall be submitted with preliminary plans for review and approval by the Township Planning Commission and Township Engineer.

As discussed at the April 7, 2021 Planning Commission Meeting, sidewalks are to be provided along the site frontage abutting South Concord Road, and within the interior of the site. The following shall be provided:

- Four (4) handicap accessible ramps shall be provided along the South Concord Road sidewalk approaching Sawmill Court. The following shall be provided:
 - Handicap ramp details in accordance with applicable PennDOT RC Standards.
 - Large scale plan view details shall be provided with landing/ramp/detectible warning strips shown, along with spot elevations and slopes shown to demonstrate compliance with the referenced ADA Standards and Specifications.
- Crosswalk pavement markings and signage shall be shown along both Sawmill Court crossings and labeled on the Plan.
- The following details shall be provided, in addition to those listed above:
 - Typical section of concrete sidewalk.
 - Concrete driveway aprons.

Type 1 handicapped ramps are proposed at the crosswalk locations. A grading detail (sheet 6) shows the spot elevations for the ramps. Additional details have been provided for the Crosswalks, ramps, sidewalk section, and driveway aprons for areas where the sidewalk crosses the driveways.

43. Section 149-918.B – Water distribution, approvals and reviews. No construction of any water distribution system shall commence prior to written approval and or comments from the DEP, CCHD, Fire Marshal, and Township Engineer.

The above referenced approvals shall be obtained, with correspondence provided to the Township, prior to plan recording.

The applicant is aware of the need for review and approvals from these agencies. All applicable correspondence will be forwarded to the Township.

44. Section 149-921.C(4) – 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.

Section 149-921.C(4)(a) – Lawn. A grass area with or without trees which may be used by the residents for a variety of purposes and which shall be mowed regularly to ensure a neat and tidy appearance.

Section 149-921.C(4)(b) – Natural area. An area of natural vegetation undisturbed during construction or replanted; such areas may contain pathways. Meadows shall be maintained as such. Maintenance may be minimal but shall prevent the proliferation of undesirable plants. Litter, dead trees and brush shall be removed, and streams kept in free-flowing condition.

Section 149-921.C(4)(c) – Recreation area. An area designated for a specific recreational use, including by way of example tennis, swimming, playfield and tot lots. Such areas shall be located and maintained in such manner as not to create a hazard or nuisance and shall perpetuate the proposed use.

Section 149-921.C(4)(d) – Stormwater detention/retention and sewage disposal areas. Detention or retention areas or land used for surface (land application) for subsurface sewage disposal and holding or settlement ponds.

The following shall be addressed pertaining to the Open Space Management Plan, in accordance with the Ordinance sections referred above, and shall be adequately addressed prior to consideration of Final Plan approval: Sections 190-907.A(2&3): This section requires the provision of a minimum of 10% of the Open Space to be set aside as “active recreation”. The recreation definitions set forth in Section 170-201 list hiking under “passive” recreation, that the Township may require that the area be prepared and developed for such purposes, and list activities including “playgrounds, ball courts, golf courses, and swimming pools” under “active” recreation. Subsection 3 does indicate that area associated with walking trails does not need to be in addition to the 10% active recreation requirement, unless the Board determines that the 10% minimum is to be designated for active recreation. The Planning Commission shall evaluate whether the walking trail adequately addresses this Ordinance requirement or if additional area and improvements for active recreation shall be provided.

- The applicant must clearly designate the specific uses proposed for the open space, along with required maintenance associated with each use, based upon the uses specified in

Section 170-907.A(5). This designation shall be included on the Plan view or in the Legend for clarity.

- The applicant must demonstrate compliance with Section 170-907.A(7)(a), which requires that the areas which qualify to meet minimum open space requirements be not less than 75 feet in width at any point and not less than ½ acre of contiguous area.

The Open Space Management Plan has been modified to show additional detail, and an Open Space Memo is provided detailing compliance with the Open Space Standards.

45. Section 149-922.B(2) All buffers shall include a completion planted visual barrier to landscape screen. Such visual barrier shall be fully attainable within a three-year period. Where the existing tree masses do not fully screen the area or where there are no existing tree masses, planting shall be added to complete the visual barrier within the prescribed time period.

The following shall be provided and shall be completed prior to consideration of Final Plan approval:

- If the applicant's arborist is to perform an evaluation regarding the health of the existing trees and their effect on the compensatory trees to be provided, this evaluation shall be completed in Report form, submitted to the Township for review, and approved by Westtown Township.
- In lieu of the above referenced arborist evaluation, a site walk with the Township shall be scheduled to determine the health of the existing trees and the effect on the compensatory trees to be provided.

The Arborist's report has been forwarded to the Township for review. Buffering plantings have been added to the landscaping plan as required.

46. Section 149-924.D(11) – A tree protection management plan must be submitted at the time of preliminary plan application if there are 10 or more viable trees proposed to be cut or removed from the property. The Tree Protection Management Plan shall contain the following information on a plot plan: A chart tabulating the diameter inches being removed, the required diameter inches to be replaced and the equivalent number of compensatory trees.

The Tree Protection Plan shall be revised as follows:

- a) Section 149-924.D.(3) - Lot owner's consent to the application.

The lot owner's consent to the application shall be added to the Plan.

The Lot Owner's Acknowledgement has been added to the plan.

- b) Section 149-924.D.(9) - The limits of tree protection zone, according to the following distances from proposed improvements: a-d.

Tree protection zone limits shall be clearly shown on the Plan

Tree Protection zone limits have been added to the Landscaping Plan.

47. Section 149-924.D(12)(b) – Compensatory planting. Compensatory trees shall be provided in the following ratios, based upon the sum totals of the diameter inches of trees being removed. The stands are applicable to both deciduous and evergreen trees. Compensation is not required for shrubs, unless otherwise required by the Board of Supervisors.
- i. For viable non-specimen: one inch of new tree caliper shall be provided for every four inches of existing tree diameter cut or removed. For example, if a single trunked, twenty-inch diameter oak is removed, five diameter inches shall be replanted.
 - ii. For viable specimen: one inch of new tree diameter for every one inch of existing tree diameter cut or removed. Where it has been determined by the Zoning Officer that a specimen tree has been or is proposed to be cut or removed, the person responsible shall be fined no more than \$1,000.
 - iii. For existing street trees within the right-of-way, one tree, with a caliper of 3 ½ inches shall be replanted as a canopy tree in accordance with Section 149-925I(6).

The applicant has requested a waiver from this section of the Ordinance. CEG does not support this request, as the existing vegetation which serves as a buffer to the properties to the north, west, and south will be removed as a result of the improvements proposed; therefore, warranting the provision of compensatory plantings.

The Arborists Report has been forwarded to the Township for review. Based upon this report, and the subsequent sitewalk with Maggie Dobbs, the compensatory tree requirements chart has been updated. The landscaping plan has been updated to show the proposed on-site compensatory tree plantings and a fee-in-lieu of will be established for any additional compensatory trees.

48. This comment has been satisfactorily addressed.

No response required.

49. Section 149-927 – Sanitary sewage disposal and treatment facilities.

CEG defers comments pertaining to this Ordinance section to the Township Sanitary Sewer Engineer.

No response required.

50. Section 149-403.A – Before the final plan is signed by the Board of Supervisors, the applicant shall submit an agreement, subject to the approval of the Board of Supervisors, provided for, but not limited to, the following where applicable: In accordance with the approved final plan, the applicant will layout and construct all street and other improvements, including, but not limited to, grading, paving, curbs, gutter, sidewalks, streetlights, fire hydrants, water mains, street singes, shade trees, storm and sanitary sewers, stormwater management structures, landscaping, traffic control devices, open space areas, and erosion and sediment control measures.

Section 144-403.C – The applicant shall sign a tri-party agreement with a financial institution and the Township guaranteeing and securing completion of the improvements listed in Subsection A, except as provide for in Subsection E, within one year of the date of the approved plan.

Financial security in an amount acceptable to the Township shall be provided prior to Plan recording. A Construction Cost Estimate shall be submitted for review and approval, with the required financial security incorporated into a Developer's Agreement to be executed prior to Plan recording.

The applicant will sign the Tri-party agreement and provide financial security prior to recording of the plans.

ZONING COMMENTS:

(WESTTOWN TOWNSHIP CODE, CHAPTER 170, ZONING):

51. This comment has been satisfactorily addressed.

No response required.

52. This comment has been satisfactorily addressed.

No response required.

53. *Section 170—1514.F(1) – Plan Submission -For subdivision and land development applications where site lighting is required for proposed, lighting plans shall be submitted to the Township for review and approval and shall include:*

It is confirmed that the lighting as proposed shall not produce glare in excess of the requirements set forth in the above referenced section of the Zoning Ordinance. CEG defers to the Westtown Township Zoning Officer as to the applicability of the above referenced Zoning Ordinance sections applicable to minimum illuminance to be provided.

As discussed with the Planning Commission, the proposed lights are accent lights for the driveway areas, rather than Site Lighting. As agreed, the applicant has provided ISOfootcandle for the proposed lights. The BUG rating was not available for these lights but they do provide a very limited throw as shown by the footcandles shown and the bulbs are shielded to prevent glare. The plan notes clarify that the lights will be owned by each individual homeowner but maintenance and operation of the lights will be mandated by the Homeowner's Association.

GENERAL COMMENTS:

54. This comment has been satisfactorily addressed.

No response required.

55. This comment has been satisfactorily addressed.

No response required.

56. This comment has been satisfactorily addressed.

No response required.

57. This comment has been satisfactorily addressed.

No response required.

58. This comment has been satisfactorily addressed.

No response required.

59. Additional supporting information shall be provided to support the volume calculations indicated in the Pond Reports for BMPs 1, 2, and 3, to clearly show volume associated with the tank modules (100% voids) and the surrounding stone (40% voids).

Spreadsheets have been provided showing the methodology used to establish the storage volume for the R-Tank BMPs. The calculations were performed using a conservative 90% void ratio for the R-Tank system (to allow for equivalent systems to be used if necessary). If the reviewing engineers have any questions about the methodology used, they can contact Joel Comanda at Inland Design directly to discuss.

60. This comment has been satisfactorily addressed.

No response required.

61. This comment is no longer applicable.

No response required.

62. This comment has been satisfactorily addressed.

No response required.

63. The following information shall be provided as it pertains to the Homeowners Association Declaration and applicable documents:

- The proposed budget of the Homeowners Association, to ensure that proper funding for maintenance of the following is established:
 - i. Stormwater BMPs 1, 2, and 3
 - ii. The Permanent Compost Filter Sock
 - iii. Community Walking Trail
- Evidence that the BMP and Compost Filter Sock Operation and Maintenance Notes have been incorporated into the HOA Documents.
- The applicable section of the documents covering the Homeowners Association and the Township 's responsibilities associated with the Off-Street Parking/Snow Removal Area shall be provided to ensure clarity as far as ownership and maintenance responsibilities.

The above comment remains applicable. The above referenced budget shall also include proposed sidewalks to be maintained by the Homeowners Association. The above information shall be submitted for review and approved by the Township prior to consideration of Final Plan approval

The Applicant is working on the Homeowners association documents and will provide an updated document with the required details prior to the Board of Supervisors meeting.

64. This comment has been satisfactorily addressed.

No response required.

65. Section 149-913.D - Where practicable, blocks along arterial highways and collector streets shall not be less than 1,000 feet long.

The applicant has requested a waiver from the referenced Ordinance requirement. CEG defers comment to the Township Traffic Engineer.

See response letter to Al Federico Review Letter for response.

OTHER AGENCY APPROVALS:

- Chester County Conservation District (NPDES Permit)
- Pennsylvania Department of Environmental Protection (Sewage Facilities Planning Module Exemption)
- Township Fire Marshall

We trust that the plans adequately address the comments of the Township Consultants. Please feel free to contact me with any questions or comments regarding this matter.

Very Truly Yours,



Joel D. Comanda, P.E.

Project Manager

C: file