



September 1, 2023

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

RE: Westtown School Athletic Field – Oak Lane Project
Land Development Review
Westtown Township
0236-23-0213

Dear Mr. Altshul,

As requested, Cedarville Engineering Group, LLC (CEG) has completed a Land Development Review for Westtown School Athletic Field – Oak Lane Project. The site (Parcel ID number 67-2-27) comprises roughly 195 acres and is located on the south side of Oak Lane, in the Agricultural/Cluster Residential (A/C) Zoning District of Westtown Township. The project includes: the construction of two (2) athletic fields, associated parking, relocation of the existing softball field, a support building, and stormwater management facilities.

The following information was received by our office on August 4, 2023:

- A. Full size Plan titled “Preliminary/Final Land Development Plan for Westtown School – Oak Lane Project” consisting of Sheets 1-48 of 48, prepared by ELA Group, Inc., dated January 27, 2023 and last revised August 1, 2023.
- B. PA DEP NPDES General Permit No PAC150337.
- C. Everbach Acoustics Consulting Letter regarding acoustic testing for the site dated August 1, 2023.
- D. NPDES PCSM Module 2/Post Construction Storm Water Management Report dated January 27, 2023 and last revised March 17, 2023.
- E. Westtown Township Application for Approval of Preliminary Plan application (marked to include Final by the Applicant) dated July 28, 2023.
- F. County of Chester Subdivision / Land Development Information Form.
- G. Riley Riper Hollin & Colagreco Application Letter dated August 3, 2023.
- H. Athletic Field Lighting Plans consisting of twelve (12) sheets, prepared by Musco Lighting, dated August 3, 2023.
- I. Westtown School Oak Lane Turf Fields Transportation Operational Analysis dated March 14, 2023 and last revised July 27, 2023.



- J. Westtown Township Sewer Capacity Verification letter dated January 24, 2019.
- K. Waiver Request Letter dated August 1, 2023.
- L. Daktronics SO-918 scoreboard product specifications.
- M. Daktronics MS-918 scoreboard product specifications.
- N. Westtown Township Subdivision and Land Development Information Sheet.

The plan has been granted conditional use approval on June 19, 2023 with the following conditions:

- 1) The Applicant shall consider during land development the installation of emergency backup lighting to illuminate segments of the pathway leading from the parking lot to the athletic field where the pole lights will be installed.

CEG Comment: The Land Development Plan shall be revised to include the referenced lighting.

- 2) Lighting for all parking lots associated with the use of the athletic fields shall comply with all applicable Township Ordinances and regulations.

CEG Comment: CEG defers to the Township's Lighting consultant to confirm compliance.

- 3) All conditions of the conditional use approval imposed by the Board shall be clearly set forth on the Land Development Plans and recorded as conditions of final Land Development Approval.

CEG Comment: The conditions set forth by the Conditional Use decision have been shown on Sheet 1 of the Land Development Plans. This condition has been satisfactorily addressed.

- 4) The Applicant shall provide truck turning templates to the Township demonstrating that emergency vehicles may safely access the parking lot located closest to the athletic fields.

CEG Comment: CEG defers to the Township's Traffic Engineer to confirm compliance.

- 5) The Applicant shall provide the specifications for the scoreboard which must meet all relevant Township Ordinance requirements.

CEG Comment: CEG defers to the Township's Lighting Consultant to confirm compliance.

- 6) Applicant shall analyze the intersection of Oak Lane and Westtown Road and coordinate improvements with the Township and its consultants to the extent necessary to address visibility and ensure appropriate sight distance.

Comment: CEG defers to the Township's Traffic Engineer to confirm compliance.

- 7) If required by PennDOT or Township criteria, the Applicant shall obtain a permit for the existing flashing signal that was installed on Oak Lane.



CEG Comment: CEG defers to the Township’s Traffic Engineer to confirm compliance.

- 8) The Applicant shall provide specifications for the public announcement system and such system must comply with all relevant Township Ordinance criteria.

CEG Comment: The Noise Propagation Survey prepared by Everbach Acoustics shall address comment number 7 in CEG’s May 5, 2023 Conditional Use Review Letter.

- 9) If the Applicant or its agent(s) obtains conditional use approval for the installation of solar panels on its property, it shall provide consistent landscaping buffers on the Land Development Plan associated with the athletic fields improvements as well as the plans for solar panel installation.

CEG Comment: Comments pertaining to proposed landscaping are included in this letter.

- 10) The Applicant and the use and development of the Property shall comply with the representations and commitments made in the testimony and exhibits presented at the hearing to the Board.

CEG Comment: CEG defers to the Zoning Officer to confirm compliance.

- 11) The Applicant and the use and development of the Property shall comply in all respects with all ordinances and regulations of Westtown Township and with all applicable provisions of any statute, ordinance or regulation of any municipal or governmental entity having jurisdiction over the Property or the uses thereon.

CEG Comment: The plans shall comply with this Review Letter and all correspondence provided by the Township and its consultants.

- 12) The athletic field light system may only be energized in conjunction with an event directly related to and under the control of the educational or sports program of Westtown School. No private organizations or other public entities may use the athletic field lights for lighted events of any reason.

CEG Comment: A note shall be provided, on the plan to be recorded, stating that the athletic field light system may only be energized in conjunction with an event directly related to and under the control of the educational or sports program of Westtown School. A statement that “No private organizations or other public entities may use the athletic field lights for lighted events of any reason.” shall be added to the Record Plan.

The following waivers have been requested by the Applicant:

- I. Section 144-301.T – to allow disturbance within 75 feet of the top of bank of a perennial waterway for installation of a stormwater management facility.

CEG does not recommend consideration of this request as the Riparian Buffer areas, as defined in Section 144-301.U of the Township’s Stormwater Management Ordinance, are not currently shown on the PCSM Plan. If compliance with the applicable criteria in the referenced Ordinance section cannot be achieved, request for applicable relief will be reevaluated.

- II. Section 144-301.U.(1) – to reduce the minimum riparian buffer distance to 60 feet to allow for the installation of the berm of a stormwater management facility.

CEG does not recommend consideration of this request because the Riparian Buffer areas, as defined in Section 144-301.U of the Township’s Stormwater Management Ordinance, are not currently shown on the PCSM Plan. If compliance with the applicable criteria in the referenced Ordinance section cannot be achieved, request for applicable relief will be reevaluated.

- III. Section 144-311.B.(3) – to allow for HDPE drain basins in select locations instead of precast concrete.

CEG offers no objection to consideration to allow HDPE drain basins in lieu of precast concrete inlets for the following inlets as shown on the plans in the vicinity of the fields: I-B6, I-B12A, I-B14, I-B13, I-B12, I-B11, I-B10, and I-B9.

- IV. Section 144-311.B.(4) – to allow for 0” drop between invert in elevations to structures and the subsequent invert out elevations.

CEG offers no objection to consideration of relief from providing a minimum two-inch drop in inlets in the pipe run from I-B14 to EW-2.

- V. Section 144-311.B.(8) – to reduce the minimum storm sewer size to 8 inches.

CEG offers no objection to consideration of relief from minimum pipe diameter of 15 inches to allow 12 inches, 10” inch, and 8-inch diameter pipes from A-A11 to I-A8, I-B14 to OCS-2, I-B6 to MH-B3, and I-B12A to I-B12.

- VI. Section 144-311.B.(9) – to reduce the minimum cover for storm sewers in lawn areas from 24” to 12”.

CEG offers no objection to consideration of relief from providing 24 inches of cover over pipes for pipes located in lawn or field areas, provided that a minimum of 12 inches of cover is provided.

- VII. Section 144-311.B.(11) – to reduce the minimum pipe velocity to less than 3 feet per second.

CEG offers no objection to consideration of relief to allow a minimum pipe velocity of less than 3 feet per second for storm pipes, applicable to pipes with a slope of less than 0.75% .

- VIII. Section 144-311.C.(2) – to reduce the minimum top berm width of permanent stormwater structures to 5-8 feet to match the requirements of temporary sediment traps/basins.

CEG does not support consideration of relief from providing a minimum 10 foot wide top of berm. A 10-foot wide top of berm is required to adequately accommodate the embankment clay core and outlet pipe anti-seep collars.

- IX. Section 144-311.C.(3) – to allow for a 0% basin bottom slope to promote infiltration.

CEG offers no objection to consideration of relief as it applies to BMP 1 to support infiltration in the BMP.

CEG offers no object to consideration of relief as it applies to BMP 4 provided that the facility is redesigned to demonstrate compliance with the applicable criteria set forth in Sections 144-305 and 144-306 of the Stormwater Management Ordinance.

- X. Section 144-311.C.(5) – to allow for SLCPP in lieu of concrete pipes for basin outlet barrels and to reduce the minimum anti-seep collar projection based on dimensions calculated following the PA DEP E&S Manual.

CEG has no objection to consideration of relief from using concrete pipes for basin outlet pipes provided that the anti-seep collars are designed in accordance with all applicable PADEP requirements.

- XI. Section 149-700.A – to allow for submission of a preliminary/final plan instead of a preliminary then final plan.

CEG offers no objection to consideration of this request.

- XII. Section 149-924.D.(12).(d) – to not provide the full amount of compensatory trees and instead receive credits from the (currently unapproved) Westtown School Solar project and to reduce the minimum caliper of trees provided from 3.5 inches to 2 inches.

CEG does not recommend consideration of this relief. The required compensatory tree planting shall be provided for each project exclusively and all compensatory trees shall have a minimum caliper of 3.5 inches.

- XIII. Section 149-925.H.(1) – to reduce the minimum caliper of trees to be provided from 3.5 inches to 2 inches.

CEG does not recommend consideration of relief from this requirement. All compensatory trees shall have a minimum diameter of 3.5 inches.

- XIV. Section 149-925.H.(3) – to provide shrubs less than the minimum 2-foot height with ones expected to be at least two feet in height within two years.

CEG does not recommend consideration of relief from this requirement. All shrubs, hedges, and yews required by the Ordinance shall be two feet in height.

The referenced documents have been reviewed for compliance with Chapter 80 – Erosion, Sediment Control and Grading, Chapter 144 – Stormwater Management, Chapter 149 – Subdivision and Land Development Ordinance, and 170 – Zoning Ordinance.

Chapter 80 – Erosion, Sediment Control and Grading

1. *Section 80-5.B – A topographical survey of the site, at a suitable scale of no less than one inch equals 50 feet and contour interval of no more than two feet zero inches, prepared by a registered surveyor or registered engineer, including also a boundary line survey, the location and description of vegetative cover, soil types (available from Chester County Soil Conservation District) and any other pertinent existing natural or man-made features.*

Section 80-5.D – A written description of soil erosion and sediment and control measures (with appropriate plans and specifications), in accordance with standards and specifications of the USDA Soil Conservation Service, Chester County Conservation District and township ordinances, including, without limitation, retention basins or other control measures necessary to limit the rate of stormwater runoff to comply with the requirements of § [80-6C](#) hereof.

The following shall be addressed:

- An Erosion and Sediment Control Narrative and Report shall be submitted to the Township with future submissions and shall include supporting calculations for all proposed BMPs.
- CFS #18-5 shall be relocated to not cross the construction entrance. As Construction Entrance #3 is labeled “optional”, permanent CFS shall be located on both sides with a CFS wholly within the roadway to be installed when RCE #3 is not present.
- The Construction Sequence shall clarify how the installation of stormwater inlets/storm sewer shall coincide with the installation of the rock construction entrance.
- Additional perimeter controls shall be provided between Sediment Trap #1 and CFS #24-6.
- Additional perimeter controls shall be provided along Oak Lane at the northern most edge of the slope grading to prevent runoff entering the small existing swale.
- The Erosion and Sedimentation Plan shall provide compost filter sock around the perimeter of the proposed topsoil stockpile.
- The word “recommended” shall be removed from the topsoil stockpile label.
- General Erosion and Sediment Control Notes 1, 2, 27, and 33, Construction Staging Notes A and B, and General Sequencing of Construction Activities 3, 7, and 25 shall be

revised to include “and Westtown Township” immediately following Chester County Conservation District.

- General Erosion and Sediment Control Notes 12 and 13, Sheet 3, shall be revised to reference the installation of compost filter sock, or clarification shall be provided to indicate where the installation of silt fence is proposed.
- Sediment Basin B-1 Detail (Sheet 36 of 48), Sediment Trap A Cross Section detail (Sheet 36 of 48), Sediment Trap #1 callout (Sheet 17 of 48) and Sediment Basin #4 callout (Sheet 18 of 48) shall be revised for consistency with designations provided on the Erosion & Sedimentation Control and PCSM Plans. Applicable references within the Construction Sequence (Sheet 4 of 48) shall be updated accordingly.
- The location of the diversion berm referenced in Construction Sequence Step 14 (Sheet 4) shall be shown on the Erosion and Sedimentation Control Plan.
- Steps shall be added to the Construction Sequence directing the conversion of sediment traps/basins to permanent stormwater BMPs.
- Emergency spillways associated with Sediment Trap #1 and Sediment Basin #4, shall be clearly shown on the Erosion and Sedimentation Control Plans, Sheets 17 and 18.
- A step shall be added to the Construction Sequence referencing the installation of high visibility fencing around the areas for proposed BMPs, in accordance with Infiltration System Construction Notes 1 on Sheet 2 of 48.

Chapter 144 – Stormwater Management

2. *Section 144-108 – For all activities requiring submittal of a stormwater management (SWM) site plan that involve subdivision or land development, the applicant shall post financial security to the municipality for the timely installation and proper construction of all stormwater management facilities as required by the approved SWM site plan and this chapter, and such financial security shall:*

A. Be equal to or greater than the full construction cost of the required facilities except to the extent that financial security for the cost of any of such improvements is required to be and is posted with the Pennsylvania Department of Transportation in connection with a highway occupancy permit application; and

B. Be determined, collected, applied and enforced in accordance with Sections 509 through 511 of the MPC and the provisions of the municipality's Subdivision and Land Development Ordinance (SALDO)

Section 144-403.G – Financial security, per the requirements of § 144-108, shall be submitted to the municipality prior to approval of the SWM site 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.

3. *Section 144-301.T – Disturbance of existing ground cover during construction of the proposed regulated activity is prohibited within 75 feet of top-of-bank of all perennial and*



intermittent waterways, water bodies (lakes, ponds, etc.) and wetlands, except for activities otherwise approved by state or local agencies (e.g., stream restoration projects, road crossings, subsurface utility projects, etc.). At the Municipal Engineer's discretion, and with conservation district and PADEP approval where necessary, the nondisturbance buffer may be reduced because of setback or other site constraints, but never be less than 10 feet.

The Applicant has requested a waiver from this section of the Ordinance. CEG does not recommend consideration of this request because the Riparian Buffer areas, as defined in Section 144-301.U of the Township's Stormwater Management Ordinance, are not currently shown on the PCSM Plan. If compliance with the applicable criteria in the referenced Ordinance section cannot be achieved, request for applicable relief will be reevaluated.

4. *Section 144-301.U.(1) – Where a development site is traversed by perennial or intermittent watercourses, riparian buffers shall be provided conforming to the line of such watercourses. The riparian buffer shall be created to extend a minimum of 75 feet to either side of the top of the bank of the channel, unless a wider riparian buffer is required by the provisions of Pennsylvania Code Chapter 102, as amended, in which case the greater of the two shall apply.*

Section 144-402.C.(8).(p) – Boundaries of riparian buffer(s) as required by the Westtown Stormwater Management Ordinance § 144-301U.

Section 144-402.C.(8).(q) – Boundaries of a seventy-five-foot construction nondisturbance buffer to protect stream (intermittent and perennial), wetlands and other water bodies during construction of the proposed regulated activity.

The Applicant has requested a waiver from this section of the Ordinance. CEG does not recommend consideration of this request, as the Riparian Buffer areas, as defined in Section 144-301.U of the Township's Stormwater Management Ordinance, are not currently shown on the PCSM Plan. If compliance with the applicable criteria in the referenced Ordinance section cannot be achieved, the request for applicable relief will be reevaluated.

5. *Section 144-305.A – The post-construction total runoff volume shall not exceed the predevelopment total runoff volume for all storms equal to or less than the two-year, twenty-four-hour duration precipitation (design storm). The water quality and runoff volume to be managed shall consist of any runoff volume generated by the proposed regulated activity over and above the predevelopment total runoff volume and shall be captured and permanently retained or infiltrated on the site. Permanent retention options may include, but are not limited to, reuse, evaporation, transpiration, and infiltration.*

The following shall be addressed:

- Appendix D of the Stormwater Management Report, "Infiltration BMP 1 Calculations", reference infiltration rates associated with Test Pits TP-14A, TP-14B, TP-15A, TP-15B, TP-16A, and TP-16B, however the referenced test pits and corresponding limiting zone/infiltration rates are not provided in the Report, Appendix I, "Infiltration

Reports”, and the locations are not shown on the PCSM Plans (Sheets 19 and 20). This information shall be provided for review to demonstrate compliance with the referenced Ordinance section.

- Appendix D of the Stormwater Management Report, “Infiltration Basin BMP 4 Calculations”, reference a Volume Infiltrated value of 18,850 cubic feet, however the “Typical Infiltration Basin/Rain Garden Cross Section Detail”, Note Number 7, states that “Basin B-4 is not designed as an infiltration basin, but to function as a water quality BMP. The subgrade is to remain uncompacted and prepared for information, however geotechnical testing is not required. The underdrain valve for basin B-4 is to remain open.” This discrepancy shall be addressed.
- The “Storage Volume” cell on the provided DEP worksheet for BMP 1 shall be revised to 12,201 CF, consistent with the storage provided at the lowest outflow elevation (2” weir at 290.50).
- The Infiltration BMP 2 Outlet Structure Detail on Sheet 41 of 48 shall revise the riser pipe crest elevation from 1368.25 to 316.75, consistent with the Stormwater Management Report.
- The Infiltration BMP 3 Outlet Structure Detail on Sheet 41 of 48 shall revise the riser pipe crest elevation from 1368.25 to 321.75 and shall label the 3” orifice elevation of 321.0, consistent with the Stormwater Management Report.

6. *Section 144-306.H.(3) – Design the infiltration facility for the required retention (infiltration) volume based on field-determined infiltration capacity (and apply safety factor as per applicable design guidelines) at the elevation of the proposed infiltration surface.*

Section 144-306.I.(1) – A minimum depth of 24 inches between the bottom of the BMP and the top of the limiting zone. Additional depth may be required in areas underlain by karst or carbonate geology. (See § [144-306M.](#))

Section 144-306.I.(3) – The infiltration facility shall completely drain the retention (infiltration) volume within three days (72 hours) from the end of the design storm.

The following shall be addressed:

- Test pit data, including but not limited to limiting zone elevation and infiltration rates, shall be provided in the Stormwater Management Report to demonstrate compliance associated with BMP1 with the above referenced criteria.
- The above referenced test pit locations shall be shown on the PCSM Plan.
- Dewatering calculations shall be amended as applicable based upon the above referenced testing results.
- If BMP 4 is not to be utilized as an infiltration facility, all references to infiltration and dewatering associated with this facility shall be eliminated.
- The plan dimensions of the infiltration beds to be located under the synthetic turf fields (BMP 2 and 3), shall be shown on the PCSM Plan and the Multipurpose Field/Infiltration Bed Cross Section Details, Sheet 41.

7. *Section 144-306.M – Where sediment transport in the stormwater runoff is anticipated to reach the infiltration system, appropriate permanent measures to prevent or collect sediment shall be installed prior to discharge to the infiltration system.*

Section 144-311.E.(1) – A sump shall be provided between the impervious area and the in-ground facility to collect and trap sediment and debris before reaching the in-ground facility.

Sumps, with a minimum depth of six (6) inches below the lowest pipe invert, shall be provided at structures located immediately upslope of proposed BMPs.

8. *Section 144-306.Q – The following procedures and materials shall be required during the construction of all subsurface facilities:*
- (1) Excavation for the infiltration facility shall be performed with equipment that will not compact the bottom of the seepage bed/trench or like facility.*
 - (2) The bottom of the bed and/or trench shall be scarified prior to the placement of aggregate.*
 - (3) Only clean aggregate with documented porosity, free of fines, shall be allowed.*
 - (4) The tops, bottoms and sides of all seepage beds, trenches, or like facilities shall be covered with drainage fabric. Fabric shall be nonwoven fabric acceptable to the Municipal Engineer.*
 - (5) Stormwater shall be distributed throughout the entire seepage bed/trench or like facility and provisions for the collection of debris shall be provided in all facilities.*

The above referenced notes shall be added to the Multi-Purpose Field/Infiltration Bed Cross Sections details, Sheet 41.

9. *Section 144-307.A – The peak flow rate of the post-construction two-year, twenty-four-hour design storm shall be reduced to the predevelopment peak flow rate of the one-year, twenty-four-hour duration precipitation, using the SCS Type II distribution.*

Section 144-307.B – To the maximum extent practicable, and unless otherwise approved by the Municipal Engineer, the post-construction one-year, twenty-four-hour storm flow shall be detained for a minimum of 24 hours and a maximum not to exceed 72 hours from a point in time when the maximum volume of water from the one-year, twenty-four-hour storm is stored in a proposed BMP (i.e., when the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e., the invert of the orifice is at the invert of the proposed BMP).

Section 144-308.A – Post-construction peak flow rates from any regulated activity shall not exceed the predevelopment peak flow rates as shown for each of the design storms specified in Table 308.1

Section 144-307.B – The peak flow rate of the post-construction two-year, twenty-four-hour design storm shall be reduced to the predevelopment peak flow rate of the one-year, twenty-four-hour duration precipitation, using the SCS Type II distribution.

Section 144-308.A – Post-construction peak flow rates from any regulated activity shall not exceed the predevelopment peak flow rates as shown for each of the design storms specified in Table 308.1

The following shall be addressed:

- The Typical Infiltration Basin/Rain Garden Cross Section Detail indicates that the underdrain valve for BMP 4 is to remain open at all times. The Pond Report associated with BMP shall therefore include the underdrain as a basin outlet as part of the facility routing.
- A detail shall be provided clearly showing underdrain/gate valve configuration as proposed.

10. *Section 144-309.D.(2).(c) – For areas that are impervious surfaces, predevelopment calculations shall assume at least 40% of the existing impervious surface area to be disturbed as meadow ground cover.*

The following shall be addressed:

- A tabulation shall be provided of existing ground cover to validate that 40% of all existing impervious area within the limits of disturbance is treated as meadow for volume and rate control calculations.
- The NRCS (SCS) TR-55 Watershed Weighted Curve Number Pre-Development Summaries shall be revised to remove Row Crops and Open Space and use Meadow for all on-site predevelopment conditions.

11. *Section 144-310.B – Any stormwater basin required or regulated by this chapter designed to store runoff and requiring a berm or earthen embankment shall be designed to provide an emergency spillway to safely convey flow up to and including the 100-year proposed conditions. The height of embankment shall provide a minimum one foot of freeboard above the maximum pool elevation computed when the facility functions for the 100-year proposed conditions inflow. Should any BMP require a dam safety permit under PA Chapter [105](#) regulations, the facility shall be designed in accordance with and meet the regulations of PA Chapter [105](#) concerning dam safety. PA Chapter [105](#) may require the safe conveyance of storms larger than 100-year event.*

Appendix G of the Stormwater Management Report indicates that the emergency spillway associated with BMP has been designed to accommodate 0.5 feet of freeboard. The design of this spillway shall be revised in accordance with the above-referenced Ordinance section.

12. *Section 144-311.B.(3) – All inlets shall be precast concrete, PennDOT type and shall have bicycle-safe-type grate.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG has no objection to granting a waiver from using precast concrete inlets for the

following inlets as shown on the plans in the vicinity of the fields: I-B6, I-B12A, I-B14, I-B13, I-B12, I-B11, I-B10, and I-B9.

13. *Section 144-311.B.(4) – Inlets shall have a minimum two-inch drop from all inlet pipe invert elevations to most shallow outlet pipe invert elevation.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers no objection to consideration of relief from providing a minimum two-inch drop in inlets in the pipe run from I-B14 to EW-2.

14. *Section 144-311.B.(8) – Storm sewers shall have a minimum inside diameter of 15 inches.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers no objection to consideration of relief from minimum pipe diameter of 15 inches to allow 12-inch, 10-inch, and 8-inch diameter pipes from A-A11 to I-A8, I-B14 to OCS-2, I-B6 to MH-B3, and I-B12A to I-B12 as previously noted.

15. *Section 144-311.B.(9) – Storm sewers shall have a minimum cover of 24 inches, unless compliance with PennDOT and manufacturers' specifications can be demonstrated to the satisfaction of the Township Engineer.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers no objection to consideration of a waiver from providing 24 inches of cover over pipes for pipes located in lawn or field areas, provided that a minimum of 12 inches of cover is provided as previously noted.

16. *Section 144-311.B.(11) – Velocity within the storm sewer system shall be no less than three feet per second and no greater than 11 feet per second for the design storm peak flow.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers no objection to consideration of relief from providing a minimum pipe velocity of 3 feet per second for storm sewer, provided that this is applicable to pipes with a slope of 0.75% or less.

17. *Section 144-311.C.(2) – The top of the berm shall be a minimum of 10 feet. The sides shall have a maximum slope of three horizontal to one vertical.*

The Applicant has requested a waiver from the above referenced section of the Ordinance.

CEG does not support consideration of relief from providing a minimum 10-foot wide top of berm. A 10-foot wide top of berm is required to adequately accommodate the embankment clay core and outlet pipe anti-seep collars.

18. *Section 144-311.C.(3) – The bottom of the basin shall have a minimum slope of 2% and any channel shall have a minimum slope of 0.5%.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers the following:

- CEG offers no objection to consideration of relief as it applies to BMP 1 to support infiltration in the BMP.
- CEG offers no objection to consideration of relief as it applies to BMP 4 provided that the facility is redesigned to demonstrate compliance with the applicable criteria set forth in Sections 144-305 and 144-306 of the Stormwater Management Ordinance.

19. *Section 144-311.C.(5) – The barrel shall be concrete pipe with antiseep collars with a minimum projection of two feet beyond the pipe. Antiseep collar design calculations shall be provided.*

The Applicant has requested a waiver from the above referenced section of the Ordinance. CEG offers no objection to consideration of relief from using concrete pipes for basin outlet pipes provided that a detail and associated specifications for the anti-seep collars are provided on the plan and are deemed appropriate for the pipe proposed.

20. *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.*

A note shall be added to the PCSM Plan and the cover sheet of the report that reference one another by title and most recent revision date.

21. *Section 144-402.B.(3) – A statement, signed by the applicant, acknowledging that any revision to the approved SWM site plan shall be submitted to and approved by the municipality, and that a revised erosion and sediment control plan shall be submitted to, and approved by, the conservation district or municipality (as applicable) for a determination of adequacy prior to construction of the revised features.*

The Drainage Plan Acknowledgement on Sheet 1 of 48 shall be revised to include all language within the above referenced section of the Ordinance.

22. *Section 144-402.B.(5) – The following signature block for Westtown Township: "On behalf of Westtown Township, (Municipal official or designee), on this date [Signature date], has reviewed and hereby certifies to the best of my knowledge that the SWM Site Plan meets all design standards and criteria of Westtown Township Code, Chapter [144](#), Stormwater Management.*

The above referenced note shall be added to the Post Construction Stormwater Management (OCSM) Plan.

23. *Section 144-402.C.(7) – Legal property boundaries, including:*
- (a) The total project property boundary and size with distances marked to the nearest foot and bearings to the nearest degree.*
 - (b) Boundaries, size and description of purpose of all existing easements and deed-restricted areas of the project property, with distances marked to the nearest foot and bearings to the nearest degree.*

Section 144-402.C.(18).(c) – Easements, as per the requirements of Article VII

The following shall be addressed:

- The tract boundary bearings and distances shall be labeled on the Plan.
- A statement of the total area of the property being developed shall be added to the Plan.
- Easement locations for proposed sanitary and stormwater conveyance and BMP facilities shall be shown on the PCSM Plan, in accordance with the applicable criteria set forth in Article VII of the Stormwater Management Ordinance.
- The stormwater easement referenced in Notes B Stormwater Management 5 on Sheet 2 of 48 shall be clearly shown on the Plans and include all bearings and distances needed to locate it.

24. *Section 144-402.C.(8).(f).[1] – The designated use as determined by PADEP (25 Pa. Code Chapter 93);*

The designated use of the receiving waters shall be clearly noted on the Plan.

25. *Section 144-402.C.(8).(j) – Areas classified by the municipality as steep slopes.*

All areas classified as steep slopes, as set forth in Section 170-402 of the Zoning Ordinance, shall be shown on the PCSM Plan.

26. *Section 144-402.C.(11) – Existing and proposed man-made features, including roads, paved areas, buildings, and other impervious and pervious surfaces on the project property (or an appropriate portion of the property as determined in consultation with the Municipal Engineer) and within the proposed disturbed area, and including the type and total area of the following:*

- (a) Existing impervious surfaces (must differentiate existing impervious surfaces installed after December 16, 2013);*
- (b) Existing impervious surfaces proposed to be replaced;*
- (c) Existing impervious surfaces to be permanently removed and replaced with pervious ground cover;*
- (d) New or additional impervious surfaces; and*

(e) Percent of the site covered by impervious surfaces for both the existing and proposed post-construction conditions.

A tabulation shall be added to the Plan in accordance with the referenced Ordinance Section. This tabulation shall supplement the Area and Bulk Requirements Table on Sheet 1 and include only areas within the limits of disturbance.

27. *Section 144-402.C.(18).(c).[2] – Notes or other documentation, as needed, to grant the municipality the right of access to all BMPs and conveyances for the purposes of inspection and enforcement of the requirements of this chapter, and any applicable O&M plans and O&M agreements.*

Section 144-402.C.(18).(c).[3] – Notes or other documentation, as needed, to grant the municipality the right of access to all roadways necessary to access all BMPs and conveyances, where roadways are not to be dedicated to the municipality.

The following shall be addressed:

- Notes B.8 shares a number with another Notes B.8 on Sheet 2 and all notes shall be renumbered accordingly.
- Note B.8 on Sheet 2 shall be expanded to include the following language: “The municipality is granted the right, but not the obligation, to enter the property for the purposes on inspections and maintenance activities regarding the BMPs shown on this Plan”.

28. *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 shall be executed and recorded for the proposed stormwater BMP's to be incorporated. The O&M Agreement will be provided by Westtown Township at the time that stamped and approved Plans are issued for the project. The applicable signatures must be signed by the property owner prior to Plan recording.

Chapter 149 – Subdivision and Land Development Ordinance

29. *Section 149-403.C.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 provided for in Subsection E, within one year of the date of the approved plan.*

(2) The applicant shall deposit with the Township an escrow account in an amount equal to 110% of the cost of the improvements, based on a construction cost estimate prepared by a bona fide contractor and reviewed and approved by the Township Engineer, whose decision shall be final.

(3) If the improvements are not completed within the one-year period, the Township shall have the right to withdraw the escrow funds to complete the improvements, or shall require the financial security be increased by an additional 10% for each succeeding year beyond the first posting date of the security or to an amount not exceeding 110% of the cost of completing the required improvements as reestablished.

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.

30. *Section 149-602.B.(7) – The total tract boundary lines of the property being developed, with accurate distances to hundredths of a foot and bearings to the nearest second. These boundaries shall be balanced and closed with an error closure not less than one foot in 10,000 feet; provided, however, that the boundary(ies) of adjoining additional unplatted land of the subdivider (i.e., between separately submitted plan sections) are not required to be based upon field survey, and may be calculated. Existing and proposed monuments shall be indicated, along with a statement of the total area of the property being developed. In addition, the engineer or surveyor shall certify to the accuracy of the survey and that the drawn plan is in conformance with all Township chapters.*

Section 149-702.B.(7) - The total tract boundary lines of the area being developed with accurate distances to hundredths of a foot and bearings to the nearest second. These boundaries shall be balanced and closed with an error closure not less than one foot in 10,000 feet; provided, however, that the boundary(ies) adjoining additional unplatted land of the subdivider for example, between separately submitted final plan sections are not required to be based upon field survey, and may be calculated. Existing and proposed monuments shall be indicated, along with a statement of the total area of the property being developed. In addition, the engineer or surveyor shall certify to the accuracy of the survey and that the drawn plan is in conformance with Township chapters.

The following shall be addressed:

- The tract boundary bearings and distances shall be labeled on the Plan.
- Existing monumentation along Westtown Road, adjacent to BMP1, shall be shown.
- A statement of the total area of the property being developed shall be added to the Plan.

31. *Section 149-602.B.(9) - Precautionary and prohibitive slope areas and floodplain shall be noted as defined by Chapter [170](#), Zoning.*

Section 149-702.B.(9) - Precautionary and prohibitive slope areas and floodplain shall be noted as defined by Chapter [170](#), Zoning.

Precautionary and prohibitive slope, in accordance with the criteria set forth in Section 170-402 of the Zoning Ordinance, shall be shown on the Plan.

32. *Section 149-602.B.(10) - Location and ownership of all existing sewer lines, water lines, fire hydrants, utility transmission lines, culverts, bridges, railroads, watercourses, trees, wetlands (or certification that none are 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 proposed subdivision.*

Section 149-702.B.(10) - Location and ownership of all existing sewer lines, water lines, fire hydrants, railroads, watercourses, trees, wetlands (or certification that none are present), soils, easements, rights-of-way and other significant man-made, historical or natural features within the proposed subdivision and within 50 feet from the boundaries of the proposed subdivision.

The location (and ownership if not part of the public system) of all utilities shall be shown as required by the above referenced section of the Ordinance.

33. *Section 149-602.C.(3).(a) - Utility easement locations.*

Section 149-602.C.(3).(e) - All easements or rights-of-way, public or private, and any limitations on such easement or rights-of-way shall be shown and accurately identified on the plan.

Section 149-702.B.(21).(a) - Utility easement locations

Section 149-702.B.(21).(e) - All easements or rights-of-way, public or private, and any limitations on such easements or rights-of-way shall be shown and accurately identified on the plan.

Easements associated with stormwater management BMPs and conveyance facilities shall be shown on the PCSM Plan. If a blanket easement is to be offered, this shall be clearly noted on the PCSM Plan.

34. *Section 149-602.C.(4).(b) - A statement noting water and sewer needs and verification of the availability of both.*

A notice of capacity has been provided for sanitary service. This letter shall be subject to the review of the Township's Sewer Engineer.

35. *Section 149-602.C.(4).(g) - Where applicable, the location and width of all buffer areas.*

Riparian buffer areas shall be clearly shown on the Site and PCSM Plans.

36. *Section 149-602.C.(4).(k) - Where applicable, a statement listing waivers requested and/or approved shall be included.*

Section 149-702.C.(5) - Where applicable, a statement listing waivers requested and/or approved shall be included.

Section 149-702.C.(5) - Where applicable, a statement listing waivers requested and/or approved shall be included.

The Requested Waivers/Modifications list shown on Sheet 1 of 48 (13 requests) shall be revised to include all waivers outlined in the received Waiver Request Letter (14 requests).

37. *Section 149-700.A - Within 60 days after approval of the preliminary plan, a final plan and all necessary supplementary data shall be officially submitted to the Township. However, an extension of time may be granted at the option of the Board of Supervisors upon written request of the applicant.*

The Applicant has requested a waiver from this section of the Ordinance to allow for submission of a combined Preliminary/Final Plan. CEG offers no objection to consideration of this request.

38. *Section 149-702.B.(15) - Location, size and invert elevation of all sanitary and storm sewers and location of all manholes, inlets and culverts with the material of each indicated, and any proposed connections with existing facilities. (These may be on a separate plan.) (NOTE: All*

construction of sanitary sewer systems must be in accordance with the standards and specifications as adopted by Westtown Township and the plan shall be so noted.)

A note shall be added to the Utility Plan (Sheet 21 and 22 of 48) referencing that all sanitary sewer improvements shall be in accordance with all standards and specifications of Westtown Township.

39. *Section 149-801.E - Location and type of all erosion and sedimentation control measures, including, but not limited to, tire cleaners, retention basins, silt fences and hay bales; proposed dates when such measures shall be in effect, and supporting data assuring compliance with the erosion and sedimentation control standards set forth in Chapter [80](#), Erosion, Sediment Control and Grading. A note shall be added to the plans indicating that the applicant is responsible for installation and maintenance of all soil and erosion control measures until closeout of the escrow account.*

Section 149-801.G - Chapter [80](#), Erosion, Sediment Control and Grading, is hereby made a part of this chapter and all of its requirements are applicable to any subdivision or land development as defined in this chapter. The applicant shall take whatever measures are necessary to ensure that no silt or mud leaves the property being developed up to dedication and/or closeout of the escrow account.

See Comment #1.

40. *Section 149-803.B.(1).(g).[1] - Notation of ownership and responsibility for maintenance of stormwater management structures*

The Operation and Maintenance Sheet (Sheet 5 of 48) shall be revised to remove all note references of “As specified in the O&M Plan” and like notation to a legitimate reference (example: Maintenance Requirements note iv to reference Infiltration Basin tables).

41. *Section 149-803.B.(1).(g).[5] - If stormwater facilities will not be municipally owned, the developer shall establish a legal right of the Township to access the facilities for periodic inspections and maintenance at the Township's discretion. However, the Township is under no obligation to perform such inspections and maintenance. The Township may require that the entity responsible for maintenance of stormwater facilities reimburse the Township for costs of maintenance and repair of stormwater facilities if that entity fails to perform its duties.*

The stormwater easement referenced in Notes B Stormwater Management 5 on Sheet 2 of 48 shall be clearly shown on the Plans and include applicable bearings and distances.

42. *Section 149-803.B.(3).(c) - All inlets shall be precast concrete, PennDOT type and shall have bicycle-safe type grate.*

The Applicant has requested a waiver from Section 144-311.B.(3) to allow HDPE drain basins. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(3).(c) as well.

43. *Section 149-803.B.(3).(d) – Inlets shall have a two-inch drop from inlet to outlet.*

The Applicant has requested a waiver from Section 144-311.B.(4) to allow omitting the two-inch drop from inlet to outlet. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(3).(d) as well.

44. *Section 149-803.B.(3).(g) – Storm sewers shall have a minimum grade of 0.5% and a minimum inside diameter of 15 inches.*

The Applicant has requested a waiver from Section 144-311.B.(8) to allow for a minimum diameter of less than 15 inches. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(3).(g) as well.

45. *Section 149-803.B.(3).(h) – Storm sewers shall have a minimum cover of 24 inches.*

The Applicant has requested a waiver from Section 144-311.B.(9) to allow for a minimum cover of 12 inches instead of 24 inches. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(3).(h) as well.

46. *Section 149-803.B.(4).(a) – Berm constructed of earth of a clay base with no topsoil and a cutoff trench key continuous along the berm base.*

Typical Infiltration Basin/Rain Garden Cross Section Note 1 shall be amended to include specifying “Berm constructed of earth of a clay base with no topsoil and a cutoff trench key continuous along the berm base” as required by the above referenced Ordinance section.

47. *Section 149-803.B.(4).(b) – The top of the berm shall be a minimum of 10 feet. The sides shall have a maximum slope of three horizontal to one vertical (3:1).*

The Applicant has requested a waiver from Section 144-311.C.(2) to allow for a minimum berm width less than 10 feet. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(4).(b) as well.

48. *Section 149-803.B.(4).(c) – The bottom of the basin shall have a minimum slope of 2% and any channel shall have a minimum slope of 0.5%.*

The Applicant has requested a waiver from Section 144-311.C.(3) to allow for a basin bottom slope of 0%. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(4).(c) as well.

49. *Section 149-803.B.(4).(e) - The barrel shall be concrete pipe with anti-seep collars with a minimum projection of two feet beyond the pipe.*

The Applicant has requested a waiver from Section 144-311.C.(5) to allow for a basin bottom slope of 0%. If the Applicant intends to request a waiver from the referenced Stormwater Management Ordinance section, a waiver shall be requested from 149-803.B.(4).(e) as well.

50. *Section 149-803.B.(4).(f) - Emergency spillway shall be constructed of concrete/grass pavers. Pavers shall extend down the basin slopes at the spillway location.*

The BMP emergency spillways shall be revised to be constructed of concrete/grass pavers as required by the above referenced section of the Ordinance.

51. *Section 149-803.B.(6).(a) - A sump shall be provided between the impervious area and the inground facility to collect and trap sediment and debris before reaching the inground facility.*

Sumps shall be provided at structures immediately upslope of proposed BMPs, as previously referenced.

52. *Section 149-804.A - Traffic impact study. A traffic impact study shall be required for any subdivision or land development that is expected to generate more than 250 total average weekday trip-ends after build-out. The traffic impact study shall include, but not be limited to, the following: (1) - (11)*

The following shall be addressed:

- The submitted traffic impact study (Transportation Operational Analysis) is subject to the review and approval of the Township Traffic Engineer.
- The submitted traffic impact study narrative shall be revised in accordance with Conditional Use Approval condition 12. The first paragraph of “Project Background” shall be amended to remove the reference of the fields being used on a rental basis.

53. *Section 149-804.B - Water study. The water study shall include but not be limited to the following, and, where applicable, plans shall be drawn to the same scale and be of the same size as that of the corresponding preliminary plan: (1) - (6)*

Section 149-917.C - Procedures. All applicants for subdivision or land development shall state in the preliminary plan whether water supply will be community, public or private on-site. A water study (Article VIII) shall be submitted upon request of the Planning Commission and/or Board.

Section 149-918.A - Plan requirements. All proposed water distribution systems shall be designed, connected and installed to meet the specifications and requirements of the DEP, Pennsylvania Utility Commission (PUC), CCHD and all Township ordinances. The complete design of the proposed distribution system and the following information shall be provided as a part of all preliminary and final plans: (1) - (4)

The following shall be addressed:

- A water study shall be submitted to the Township for review and approval.
- Conformance to applicable Westtown Township requirements is subject to the review and approval of the Township Authority.
- Documentation shall be provided demonstrating acceptance of the system modifications and distribution from DEP, PUC, and CCHD as applicable.

54. *Section 149-908.A - A minimum clear sight triangle of 75 feet (as measured from the center-line intersections of two streets) shall be provided at all intersections. The minimum clear sight triangle shall be increased to 100 feet if either street is a collector street and to 150 feet if either street is an arterial highway. There shall be no physical obstruction, planting, berm or grade above the height of 18 inches within the right-of way section of this triangle or above the height of 2 1/2 feet elsewhere in this triangle.*

Minimum clear sight triangles of 75 feet shall be provided on the Landscape Plan (Sheet 23 of 48) for the proposed parking entrance and exit.

55. *Section 149-910.D.(2) - Type I Base Course. Base course shall be constructed of stone aggregate, rolled with vibratory roller, and thoroughly compacted in two layers to a depth of not less than eight inches for residential and 10 inches for industrial. The materials and construction methods shall be in strict accordance with the requirements of Section 310, "Crushed Aggregate Base Course," PennDOT Seldom Used Specifications.*

Section 149-910.D.(3) - Type II Base Course. Base course shall consist of five inches for residential and six inches for industrial, after compaction, of hot mixed, hot laid bituminous concrete base course placed on a six-inch compacted layer of PennDOT No. 2A course aggregate, Type C or better (no slag material). The materials and construction methods shall be in strict accordance with the requirements of Section 305, Bituminous Concrete Base Course, and Section 305, Subcourse, of PennDOT Publication 408 Specifications. The subbase and base course shall be rolled with a vibratory roller.

Section 149-910.D.(4) - Bituminous Surface Course ID-2A. Bituminous surface course ID-2A shall consist of constructing a binder course and wearing course of hot mixed, hot laid asphalt concrete on the above prepared base course. The binder course shall be rolled with vibratory roller and compacted to a depth of not less than two inches and the wearing course not less than 1 1/2 inches. The materials and construction methods shall be in strict accordance with the requirements of Section 420, Bituminous Wearing Course ID-2, and Section 421, Bituminous Binder Course ID-2, of PennDOT Publication 408, as amended. The Township may require that the final application of bituminous concrete be withheld until the

streets are offered for dedication to the Township if the wearing course is not applied immediately after the binder course. (NOTE: The binder course shall be thoroughly cleaned and tack coated in accordance with PennDOT Publication 408, as amended.)

The following shall be addressed:

- A roadway restoration detail shall be provided for repairing the area where the parking area accessway connections are proposed.

56. *Section 149-911.A - All materials entering into the construction of curbs and the method of construction and installation shall be in accordance with PennDOT Specifications Publication 408, as amended.*

Section 149-911.B - Vertical curbs meeting the dimensional requirements for plain cement concrete curb contained in the PennDOT Standards for Roadway Construction (RC-64) shall be required on all streets.

The Applicant has included a Cobble Curb Detail on Sheet 29 of 48 however all other details that are ancillary to proposed curbs (pavement sections, underground beds) show standard concrete curbing. The following shall be addressed to provide clarity:

- The Layout Plans (Sheet 11 and 12 of 48) shall be revised to specify the locations of proposed curbing and curb type.
- If standard concrete curbing is proposed, a detail shall be provided on the Plan; otherwise, all details that show concrete curbing shall be revised to show cobble curbing.
- Both Multi-Purpose Field/Infiltration Bed details reference 12” curbing. Details consistent with the curb proposed shall be added to the Plan or the Cobble Curb detail amended accordingly.

57. *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 at a change of grades exceeding 5%.*

Profile views of the entrance and exit to the parking area shall be provided on the Plan that demonstrate compliance with the referenced Ordinance section.

58. *Section 149-916.A - All materials entering into the construction of sidewalks and the method of construction and installation shall be in accordance with PennDOT Specifications Publication 408, except that the compacted thickness of the aggregate bed shall be four inches. Sidewalks across driveways and driveway aprons shall be constructed with six inches of concrete reinforced with six-by-six w1.4 by w1.4 welded wire fabric placed 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.*

The Concrete Sidewalk detail shall be amended to include a view adjacent to asphalt paving.

59. *Section 149-916.C - Details and specifications 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.*

The following shall be addressed:

- Enlarged views showing spot elevations, dimensions, and slopes shall be provided for all ADA ramps to confirm compliance with ADA regulations.
- All ramps shall be labeled for clarity between the Plan views and the enlarged views.

60. *Section 149-924.C - Applicants shall exercise care to protect trees which remain from damage during construction. The following procedures shall be required for the protection of the remaining trees and shall be noted on the plan. All remedial work shall be performed by qualified personnel.*

Grading in the vicinity of CFS#18-3 shall be relocated outside of the tree protection zone(s).

61. *Section 149-924.D.(12).(d) - Compensatory trees shall be 3 1/2 inches in caliper and planted in accordance with the standards contained within § [149-925](#). Evergreen trees may be substituted at a ratio of two evergreens to one deciduous tree. Alternative types of compensatory planting may be permitted, when approved by the Board of Supervisors.*

Section 149-924.D - 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 a property. Tree protection management plan shall contain the following information on a plot plan: (1) - (12)

Section 149-924.D(12)(e) - Locations of compensatory trees must clearly be labeled on the landscape plan, they may be places anywhere on the site. Compensatory trees are in addition to other required trees.

The following shall be addressed:

- Specimen and non-specimen trees to be removed shall be clearly labeled on the Existing Features and Tree Protection Management Plans (Sheets 8, 9, 23, and 24 of 48).
- Compensatory trees shall be exclusive of trees required by other sections of the Ordinance. The Tree Protection Management and Landscape Plans shall clearly designate proposed trees to be used to meet compensatory requirements (Section 149-924) and those used to meet the requirements set forth in Section 149-925 of the Ordinance.
- A table shall be provided on the Tree Protection Management Plan outlining the species and size of proposed trees to be used to meet compensatory tree requirements set forth in Section 149-924.



- Tree protection shall be provided for the existing tree located adjacent to the existing/proposed trail.
- Tree protection shall be provided for the tree mass downgradient of BMP 1.
- Tree protection shall be provided for the trees upgradient of BMP 4 by TP-8.

The Applicant has requested a waiver from this section of the Ordinance to allow crediting other Westtown School projects' plantings to reduce the number of compensatory trees provided. CEG does not recommend consideration of this relief. Compliance with this Ordinance requirement shall be specific to the current application and shall be exclusive of other projects.

62. *Section 149-925.H.(1) - Deciduous trees: 3 1/2-inch caliper.*

The Applicant has requested a waiver from this section of the Ordinance. CEG does not recommend consideration of relief from this requirement. All compensatory trees shall have a minimum diameter of 3.5 inches.

63. *Section 149-925.H.(3) - Shrubs, hedges, yews: two feet in height.*

The Applicant has requested a waiver from this section of the Ordinance. CEG does not recommend consideration of relief from this requirement. All shrubs, hedges, and yews required by the ordinance shall be two feet in height.

64. *Section 149-925.G.(1) - Lot or perimeter yard requirements. Each yard shall be landscaped as follows:*

<i>Landscaping Per 100 Linear Feet</i>			
	<i>Canopy Trees</i>	<i>Ornamental Flowering Trees</i>	<i>Shrubs</i>
<i>Nonresidential</i>			
<i>Street Frontage</i>	2	1.5	6
<i>Other Property Lines</i>	1	1	3

Section 149-925.G.(2) - Parking area requirements.

Section 149-925.G.(3) - Stormwater retention/detention basins

(a) - Deciduous or evergreen trees at the rate of one tree per 2,000 square feet of basin area; and

(b) - Shrubs, hedges or yews at the rate of one plant per 200 square feet of basin area.

The following shall be addressed:

- A tabulation shall be provided noting the number of required and proposed trees for the site. Plantings on the Landscape Plan (Sheet 23 and 24 of 48) shall clearly indicate what requirement proposed trees are to address.
- Three proposed trees within BMP 4 do not have a designation and shall be labeled.

- All proposed BMP plantings shall be removed from the internal basin berm slopes and berm tops. This includes but is not limited to the following:
 - BMP 1
 - 1 of 3 BNH tree planting.
 - 9 CR shrub plantings.
 - 3 PO shrub plantings.
 - 5 MP shrub plantings.
 - 5 SD shrub plantings
 - BMP 4
 - The majority of plantings along the eastern berm.
- Due to the limited cover currently provided for all stormpipes, all planting materials shall maintain a minimum horizontal separation of 10 feet for trees and 5 feet for shrubs.

65. *Section 149-927.D - The applicant shall comply with all requirements of Westtown Township, the Chester County Health Department and the Pennsylvania DEP and shall so certify prior to final plan approval.*

The following shall be addressed:

- The provided capacity verification letter is subject to review by the Westtown Township Sewer Engineer.
- Conformance with Westtown Township requirements and regulations is subject to the review and approval of the Township Sewer Engineer.

Chapter 170 – Zoning

66. *Section 170-402.(1)(a) An earthmoving plan of the property which indicates existing grades with contour lines at two-foot intervals. Proposed grades within the area of any proposed activity, disturbance, or construction also shall be shown. All areas within the Steep Slope Conservation District shall be shaded accordingly.*

The Steep Slope Conservation District shall be clearly shown on the Grading and PCSM Plans, in accordance with the criteria set forth in Section 170-402. Uses proposed within the Steep Slope Conservation District shall be subject to the review of the Westtown Township Zoning Officer.

67. *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 also 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.*

Parks and outdoor recreational uses, consistent with the goals of watershed protection.



The location of the New Support Building shall be subject to the review and approval of the Westtown Township Zoning Officer.

68. *(NEW COMMENT) Section 170-407.A. No new principal or accessory building or use, parking or commercial or industrial storage area shall be located within a minimum of 75 feet from the top bank of a perennial creek.*

Section 170-407.B. Where the majority of existing trees and shrubs are removed from areas between a perennial creek and a distance of 75 feet from the top bank of such creek, new trees and shrubs shall be planted and maintained that will have the same or better impact upon controlling erosion and filtering pollutants from runoff.

Upon the provision of the referenced area on the Plan, the Township Zoning Officer shall confirm compliance with the above referenced Ordinance section.

69. *Section 170-1702.A. The following schedule of parking space and layout standards shall apply to all but commercial/retail parking facilities, in accordance with this article:*

Parking spaces in the proposed parking area in front of the lighted fields are only 9.0 feet wide. Compliance with the above referenced requirement shall be subject to review and approval by the Westtown Township Zoning Officer.

Angle of Parking Row to Driveway Aisle

	30°	45°	60°	90°
Depth of parking row	17'	20'	21'	18'
Width of parking space	9.5'	9.5'	9.5'	9.5'
Width of aisle	11'	13'	18'	24'
	(1 way)	(1 way)	(1 way)	(1 or 2 way)

70. *Section 170-1702.B. Wheel stops: The Board may approve the use of continuous curbs as wheel stops and thus measure the size of parking spaces to be two feet less in length than otherwise required. In such instances, the parking layout should allow for the vehicle to overhang the curb by two feet; such overhang area must be clear of all obstructions (signs, trees, etc.) and may not be regarded as required landscaped area or pedestrian circulation space.*

The Applicant shall place wheel stops along curb or demonstrate to the Board that there is sufficient sidewalk width to allow for the required two feet of overhang from parked vehicles.

Additional comments may be forthcoming based upon the information to be resubmitted. Please do not hesitate to contact me with any questions.





Best Regards,
Cedarville Engineering Group, LLC

A handwritten signature in black ink, appearing to read "R. E. Flinchbaugh".

Robert E. Flinchbaugh, P.E.
Municipal Team Lead

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