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Senate

December 29, 2023

S. O. No. 0593-04-006

VIA EMAIL ONLY
(brengers@leettwp.net)

Ms. Betsy Rengers, Manager
Leet Township
194 Ambridge Avenue
Fair Oaks, Pennsylvania 15003

**Subject: Quaker Valley SD – High School
Preliminary and Final Land Development Application
Review No. 2**

Dear Ms. Rengers:

LSSE has completed our review of the above referenced Preliminary and Final Land Development Plan application, dated September 28, 2023, as prepared by CEC Inc., BSHM Architects and Phillips and Associates, Inc., LBA Landscape Architecture, Bohlin Cywinski Jackson, Karpinski Engineering, Streamline Engineering, Inc., received by our office November 27, 2023. The plan proposes the construction of a high school, athletic fields and courts, parking lots, access roadways and corresponding stormwater management facilities. The property is located along Camp Meeting Road and in the AAA Residence Zoning District.

The application includes proposed improvements in both Leet Township and Leetsdale Borough. The scope of this review letter is for the portion of the project in Leet Township only,

Previous comments made regarding Preliminary Site Plan application can be found in our letter dated October 18, 2023.

The following listing presents unresolved/compliant items identified during our review that do not conform to the Leet Township’s Zoning Ordinance (Chapter 27), Subdivision and Land Development Ordinance (Chapter 22), and Stormwater Management Ordinance (Chapter 23):

Zoning

1. The Ordinance requires permitted uses based on zoning district. (Section 27-301.1.A) **Status: School is not a permitted use in the AAA Zoning District. A special exception for this use has been granted, pending appeals decision.**

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- Coraopolis, PA (Headquarters)
 - Aliquippa, Beaver County, PA
 - Greensburg, Westmoreland County, PA
 - Dublin, Franklin County, OH
 - Albion, Erie County, PA
 - Pittsburgh, Allegheny County, PA
 - White Oak, Allegheny County, PA
 - Kittanning, Armstrong County, PA
 - Washington, Washington County, PA

2. The Ordinance prohibits direct or reflected glare visible from any property or from any public street, road or highway. (Section 27-701.1.F) **Previous Comment:** *Proposed light locations have not been provided nor has a photometric plan been provided.* **Status: Photometric spillover cannot be confirmed as the location of corresponding property lines have not been provided on the photometric plan.**

Subdivision

1. The Ordinance requires the name of the registered engineer or surveyor or other person responsible for the plan be provided. (Section 22-402.2.E) **Previous Comment:** *The plan has not been sealed by a registered surveyor or engineer responsible for its preparation.* **Status: All plan sheets have not been sealed by the registered professional responsible for its preparation. Plans provided by Wooster are marked “Draft” and site plans provided by CEC are marked “Preliminary.” Final plans should be provided for review.**
2. The Ordinance requires all existing watercourses be shown on the plan. (Section 22-402.2.I) **Previous Comment:** *Plans appear to propose a stream crossing for the southern access road. Provide documentation of PADEP Permit approval at the time of final application.* **Status: The following comments are provided in reference:**
 - a. **The location of the stream has not been depicted consistently across all plan sets. Please revise accordingly.**
 - b. **Documentation of PaDEP approval for the proposed stream crossings has not been provided.**
 - c. **The location of existing wetland should be depicted consistently on all plan sheets. Documentation of approval for the proposed wetland disturbances has not been provided.**
3. The Ordinance requires all existing streets on or adjacent to the tract, including name, right-of-way width and cartway width be provided. (Section 22-402.2.K) **Previous Comment:** *Camp Meeting Road is a county road, and should be identified as such; please revise accordingly. Similarly, the roadway name should be noted as two separate words, please revise for consistency.* **Status: Camp Meeting Road has not been identified as a county road, nor noted as two separate words on C200-C202.**
4. The Ordinance requires all existing streets on or adjacent to the tract, including name, right-of-way width and cartway width be provided. (Section 22-402.2.K) **Previous Comment:** *Plans propose two connections to Camp Meeting Road as well as grading, roadway re-alignment, and sidewalk improvements within the right-of-way. The plans should note the requirement of a Highway Occupancy Permit for this work. Documentation of an approved Highway Occupancy Permit from Allegheny County must be provided at the time of final application.* **Status: Documentation of an approved Highway Occupancy Permit remains to be provided. Additionally, traffic control plans provided are noted as preliminary. Final plans, in accordance with any approved HOP from Allegheny County, must be provided.**
5. The Ordinance requires all existing streets on or adjacent to the tract, including name, right-of-way width and cartway width be provided. (Section 22-402.2.K) **Previous Comment:** *Plans propose re-alignment of Camp Meeting Road outside of the existing right-of-way. The applicant should clarify the means of establishing the added right-of-way. If by a subdivision plan, a separate application should be filed for review.* **Status: No change, a subdivision has not been included in the submission. Clarify the proposed means of establishing additional right-of-way for the revised Camp Meeting roadway re-alignments.**

6. The Ordinance requires all existing easements be shown on the plans. (Section 22-402.2.L) **Previous Comment:** *There are multiple utilities traversing the property, including gas lines and overhead electric/telephone lines. All associated easements for all existing utilities must be shown on the plans.* **Status: Easements for gas line, waterline and overhead wires traversing the subject properties have not been shown on the plan. Parcel No. 704-D-126. Additionally, the applicant should provide documentation that the encroachments into the existing easements have been reviewed and approved by the owner of the easement. Specifically, confirmation that the gas company has review the proposed fill to be installed on top of the existing facilities.**
7. The Ordinance requires a plan revision module for land development shall be the responsibility of the applicant and shall be prepared in accordance with the rules and regulations of the Pennsylvania Department of Environmental Protection. The completed module shall accompany the preliminary plan submission. When the subdivision or land development is to be provided with a complete sanitary sewer system connected to a public sanitary sewer system, a statement of approval from the engineer of the sewerage system to which it will be connected shall be submitted to the Commissioners. Where required, DEP planning module approval shall also be obtained for final plan approval. (Section 22-402.R and 22-604.1) **Status: Documentation of an approved sewage facilities planning module has not been provided.**
8. The Ordinance requires the plan provide the North point, scale, date of preparation, and date of preliminary plan approval. (Section 22-403.2.C) **Status: North point has not been depicted consistently on all plan sheets prepared by Phillips and Associates, Inc., please revise accordingly.**
9. The Ordinance requires building setback lines be provided. (Section 22-403.2.K) **Status: Building lines have not been provided.**
10. The Ordinance requires the plan provide location of all sanitary and storm sewer easements and location of all watercourses and detention ponds, whether public or private. (Section 22-403.2.M) **Status: The Following comments are provided in reference:**
 - a. **Easement locations for proposed facilities have not been provided.**
 - b. **Several existing manholes are missing top and invert elevation information.**
 - c. **Plans indicate proposed installation of SWMF-1 across an existing sanitary line and easement. Plans note proposed sanitary relocation in part of the alignment, however it is unclear whether which facilities are to be abandoned, grouted, removed, or remain active. Clarify intention of sanitary sewers. Documentation of LTMA approval has not been provided for the proposed relocation/extensions or segment abandonments.**
 - d. **Clarify feasibility of sanitary sewer installed near Drainage Channel 1 and 2; cross sections of sanitary sewers relative to drainage channels must be provided.**
 - e. **Profiles of utilities should identify all utility crossings where present.**

11. The Ordinance requires permanent reference monuments shall be shown on the plan, thus " _____," and designated existing or proposed. (Section 22-403.2.Q) **Status: Proposed monument locations for the revised right of way and road realignment have not been provided.**
12. The Ordinance requires the plan provide names of the owners of any adjoining unplatted land shall be shown. (Section 22-403.2.Q) **Status: Complete property owner information has not been provided for abutting landowners.**
13. The Ordinance requires a grading plan be provided. (Section 22-403.4) **Status: Clarify proposed grading for drainage channels as no grading is shown on the plans for these facilities. Channels as shown schematically on the Phillips and Associates Plan and not shown on the CEC Plans.**
14. The Ordinance requires a grading plan be provided. (Section 22-403.4) **Status: Drainage Channel 4 appears to cross through the proposed pedestrian trail on some sheets; please revise accordingly.**
15. The Ordinance requires a grading plan be provided. (Section 22-403.4) **Status: Plans indicate the trash enclosure on a graded slope; please revise accordingly.**
16. The Ordinance requires property lines and ownership, with details of easements where required. (Section 22-403.B.14) **Status: Clarify pedestrian easements for trail/sidewalk connection near Stormwater Facility 2. Complete grading for construction of the trail has not been shown on the plan. Additionally, clarify the location of the trail as plans depict different alignments on different sheets. Details for the pedestrian access trail should be provided.**
17. The Ordinance requires the plan provide location and size of storm and/or sanitary sewer lines with stations corresponding to the profile, location of storm and/or sanitary sewer manholes or inlets with grade between and elevation of flow line and top of each manhole or inlet, and location of storm and/or sanitary sewer lateral, Y's, etc. (Section 22-403.3.B.16) **Status: The following comments are provided in reference:**
 - a. **Complete sanitary sewer profile profiles, top and invert information has not been provided.**
 - b. **Provide documentation of LTMA approval of the proposed sanitary improvements.**
 - c. **Structure identification has not been provided for endwalls adjacent the end of Drainage Channel 2, inflow to and outflow from SWMF-1, endwalls at each end of the culvert collecting discharge along the southern side of SWMF-2 as well as endwalls for culvert conveying runoff from Drainage Channel 1.**
18. The Ordinance requires the plan provide plans of bridges and other improvements containing sufficient information to provide complete working plans for the proposed construction. (Section 22-403.13) **Status: Complete details for the proposed stream crossing culvert/bridge have not been provided.**
19. The Ordinance requires the subdivider or developer will furnish the Township with as-built plans for sanitary sewer systems and storm sewer systems within the subdivision or land development. (Section 22-404) **Status: The Developer should note the requirement to provide as-built plans prior to issuance of occupancy permit.**

20. The Ordinance requires all private driveways will be so located as to conform to the stopping sight distance requirements listed in this chapter. The maximum grade on a driveway will be 15%. (Section 22-504.8.E) **Previous Comment:** *Clarify the proposed slopes of both access driveways.* **Status: Complete profiles of the both of the proposed driveways have not been provided.**
21. The Ordinance requires where a subdivision or land development is traversed by a natural watercourse, there shall be provided a drainage easement or right-of-way conforming substantially with the line of such watercourse and of such width as will be adequate to preserve natural drainage. (Section 22-506.3) **Previous Comment:** *Watercourses traverse the property. The presence of drainage easements, whether existing or proposed, has not been provided.* **Status: No change, clarify existing and proposed drainage easements. Additionally, the location of the existing watercourse is unclear, all watercourses must be depicted consistently on all plan sets as applicable. A watercourse delineation report should be provided to confirm the presence of perennial, intermittent and ephemeral streams on the property.**
22. The Ordinance requires curbs and sidewalks. (Section 22-505.2.B and 22-603) **Previous Comment:** *The locations of ADA ramps and crosswalk areas, and corresponding signage must be clarified for all pedestrian routes. Additionally, plans indicate a crosswalk to be installed across the Camp Meeting Road cartway; provide documentation of Allegheny County approval for this uncontrolled crossing. All associated warning signage required in accordance with PennDOT standards must be shown on the plans.* **Status: The following comments are provided in reference:**
- a. **Plans indicate sidewalk termination at the southerly driveway approximately 90 feet northeast of the intersection at Camp Meeting Road. Sidewalk should terminate at roadway intersections where feasible.**
 - b. **ADA ramps have not been provided at sidewalk intersections across the Loading Area driveway, ADA parking spaces, Bus and Dropoff Lanes, southerly sidewalk traversing the drive aisle to parking areas located south of the tennis courts.**
 - c. **Documentation of Allegheny County approval for the proposed uncontrolled crossing has not been provided.**
 - d. **The proposed sidewalk at the northern entrance to Camp Meeting Roads should be clarified. Improvements depicted on varying plan sheets are not consistent. Clarification should be provided as to why sidewalk is not proposed to the full extents of the roadway relocation.**
 - e. **The complete extents of sidewalk connecting the southerly driveway to Beaver Street have not been provided and depicted consistently across plan sets. Similarly, the pedestrian easement associated with this pedestrian corridor does not match the alignment of corresponding sidewalks, please revise accordingly.**
 - f. **Plans and details for crosswalks internal to the site and on Camp Meeting Road are inconsistent. Plans depict diagonal striping, while details show 4” wide perpendicular striping. Wooster’s plans show 24” wide perpendicular striping. Plans should be revised for consistency.**
23. The Ordinance requires no final grading shall be permitted which creates any exposed surface steeper in slope than two horizontal to one vertical except where the fill is located so that settlement, sliding or erosion will not result in property damage or be hazardous to adjoining property, streets, alleys or building, and A written statement from a civil engineer, licensed by the Commonwealth of Pennsylvania and experienced in erosion control, certifying that he has inspected the site and that the proposed deviation from the slope specified above will not endanger any property or result in property damage, is submitted

to and approved by the Township Engineer. (Section 22-507.4.B) **Previous Comment:** *Plans propose 1:1 slopes. Stability analyses, and corresponding certification by a registered geotechnical engineer has not been provided. A complete geotechnical report addressing the proposed earthwork for the entirety of the site has not been provided.* **Status: The following comments are provided in reference:**

- a. **The Geotechnical report does not specifically address stability and factor of safety of the proposed 1:1 slopes.**
- b. **The required certification that proposed grading will not endanger any property or result in property damage has not been provided.**
- c. **Figure 9 indicates an area where a cut slope is, ‘likely to require treatment with soil nails and facing system to construct a stable slope’. All proposed stabilization areas must be depicted consistently in the plans with corresponding details. Please revise accordingly.**
- d. **The report includes ‘DRAFT PENDING LAB’ watermark on several test boring records. All submitted documentation should reflect a final report and complete analysis.**
- e. **The report references as Past II; Part I must be provided as part of the submission.**
- f. **Additional comments regarding the Geotechnical Report will be provided under separate cover by Ackenheil Engineering.**

24. The Ordinance requires an Erosion and Sedimentation Control plan Controls shall be in accordance with regulations of the Department of Environmental Protection be provided. (Section 22-402.2.T and 22-512) **Previous Comment:** *An Erosion and Sedimentation Control plan has not been provided. Documentation that the E&S plan has been reviewed by the Allegheny County Conservation District, and deemed to be adequate, and documentation of NPDES permit issuance must be provided at time of final application.* **Status: Documentation that the E&S plan has been reviewed by the Allegheny County Conservation District and deemed to be adequate, and documentation of NPDES permit issuance have not been provided.**
25. The Ordinance requires a statement of approval from the engineer of the water supply agency to which the subdivision or land development will be connected, shall be submitted to the Township Commissioners. (Section 22-605.2) **Previous Comments:** *A utility plan has not been provided. Documentation of Edgeworth Water Authority approval of the proposed water facilities has not been provided.* **Status: Documentation of Edgeworth Water Authority approval of proposed water facilities has not been provided.**
26. The Ordinance requires fire hydrants be provided as an integral part of any public water supply system. The Township Fire Chief shall be consulting to determine the location of proposed fire hydrants. Spacing of hydrants should be no more than 600 feet. (Section 22-605.3) **Previous Comment:** *Hydrant locations have not been provided. The applicant should direct comment of the Township Fire Chief regarding hydrant locations.* **Status: No change, approval of location of Fire Chief has not been provided.**
27. The Ordinance requires all improvements shall be installed according to a time schedule which shall be approved by the Commissioners. (Section 22-610) **Previous Comment:** *A project schedule has not been provided.* **Status: No change, a project schedule remains to be submitted.**
28. The Ordinance requires the applicant shall agree in writing on a form provided by the Township that he will construct or install and maintain until dedication all of the improvements required herein or required as a condition of approval of the final plan in accordance with the governing specifications and within the specified time limits. (Section 22-612.1) **Previous Comment:** *The applicant should note the requirement*

of a developer's agreement. This will be executed upon final plan approval. The applicant should contact the Township solicitor to initiate the agreement at the time of final plan submission. Status: The applicant should note the requirement of a developer's agreement. The applicant should contact the Township solicitor to initiate preparation of the agreement upon plan approval.

29. The Ordinance requires as a condition for approval of a final plan, the applicant shall deposit with the Township financial security in an amount sufficient to cover the costs of the required improvements in accordance with § 509 of the Municipalities Planning Code, 53 P.S. § 10509. In cases where development is projected over a period of years, the Commissioners may authorize submission of final plan by sections or stages of development subject to such requirements or guarantees as to improvements in future sections or stages of development as it finds essential for the protection of any finally approved section of the development. (Section 22-612.2) **Previous Comment:** *The applicant should note the requirement of providing an itemized item breakdown and cost estimate for required improvements. This item will aid in determining the recommended bond amount. This item will be addressed during the time of final application submission. Status: An itemized item breakdown and unit cost estimate for required improvements has not been provided for review. The cost estimate will aid in determining the recommended bond amount.*

Grading

1. The Ordinance requires a grading permit must be obtained from the administrator for new grading, excavations and fills; changes, additions or alterations made to existing excavations or fills shall conform to the provisions of these regulations. (Section 9-103.1) **Status: The applicant should note the requirement for a grading permit application.**
2. The Ordinance requires retaining walls must be constructed in accordance with sound engineering practice. The plans submitted for approval shall bear the seal of a professional engineer. (Section 9-114.3) **Status: Retaining walls are proposed; complete retaining wall designs prepared by a registered engineer must be provided.**

Traffic

1. **A traffic impact study has been provided for the proposed development. The following comments are provided in reference:**
- a. **The Intersection of Camp Meeting Road at Beaver Street:**
- i. **Previous Comment:** *Turning from Camp Meeting Road either left or right onto Beaver Street; sight distance is limited, and Beaver Street is partially hidden by a retaining wall and utility poles. Plans should clarify that adequate sight distance is available for the proposed realigned road. Status: The applicant's response indicates that sight distance information will be provided as the County HOP process advances. Information remains to be submitted to the Township.*

Previous Comment: *The report indicates the southbound LOS at Beaver Street and Camp Meeting Road will deteriorate to LOS F during the AM peak hour for both the 2025 Opening Build Year and 2030 Design Build Year. The report indicates the traffic volumes at his intersection do not warrant a signal. The report should clarify if the addition of*

another southbound turn lane will improve the unsignalized LOS. Status: Though the response suggest that addition of another lane is not recommended, other mitigation to traffic operations should be considered. Although an All-Way Stop Controlled intersection is not warranted based on traffic volumes throughout the day or a crash history problem; the 2009 MUTCD further suggest the following additional criteria to be considered in an engineering study:

- **The need to control left-turn conflicts.**
 - **Left turn conflicts are a significant factor at this intersection.**
- **The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes.**
 - **The intersection does not have high pedestrian volumes.**
- **Locations where a road user, after stopping, cannot see conflicting traffic and is not able to reasonably safely negotiate the intersection unless conflicting cross traffic is also required to stop.**
 - **Intersection sight distance is limited at this location.**
- **An intersection of two residential neighborhood collector streets of similar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection.**
 - **There are operational issues at the intersection in the future.**

- b. **Previous Comment:** *The report proposes to have a uniformed police officer or school official be present at the intersection of Camp Meeting Road and Beaver Street for traffic control during arrival and dismissal hours. This bypasses the need for intersection improvements that are required due to the LOS degradation and only addresses arrival and departure times. The analysis does not address other time periods besides daily school arrival and departures. Additionally, it is unclear how it will be ensured that an officer or official will always be present and will adequately be able to manage the impacted intersection. As this intersection is located within Leetsdale Borough, the applicant should provide confirmation that the Borough finds the degradation in level of service and proposed mitigation technique to be acceptable. Status: Item resolution pending documentation of approval of Leetsdale Borough.*

Stormwater Management

1. The Ordinance requires proposed facilities avoid erosive flow conditions. (Section 301.G.2.c) **Status: Plans indicate runoff sourcing from Drainage Channel #2 will discharge to the top of the berm of SWMF-1 before reaching the facility. All concentrated discharges facilities must be designed to prevent erosion and impacts to stormwater management facilities, please revise accordingly. As previously noted, the location of this end wall must be clarified relative to the location of existing sanitary facilities. Provide documentation of utility company approval of discharge location.**

2. The Ordinance requires proposed facilities avoid erosive flow conditions. (Section 301.G.2.c) **Status: Endwall from Stormwater Facility 1 discharges towards an existing gasline; clarify the impact of this discharge on the gasline and provide documentation from utility company of discharge location.**
3. The Ordinance requires the plan Do not increase the post -development total runoff volume for all storms equal to or less than the 2 -year 24- hour duration precipitation. (Section 303.A.1) **Status: PaDEP Volume worksheet has not been included with the submission. Clarify how the required volume is to be managed. The applicant should note, should infiltration be proposed as a method of volume removal, corresponding field infiltration test results must be provided.**
4. The Ordinance requires Post -development discharge rates shall not exceed the pre -development discharge rates for the 1-, 2-, 5-, 10-, 25-, 50-, and 100 -year, 24- hour storm events. (Section 304.A) **Status: A summary tabulation of values for the *change in runoff rate* from pre- to post- development has not be provided for each POI and design storm. Please revise for further clarify.**
5. The Ordinance requires Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer. The Riparian Buffer Easement shall be measured to be a minimum of 35 feet from the top of the streambank (on each side). (Section 304.A) **Status: The location of required riparian buffer easements have not been provide on the plan.**
6. The Ordinance requires clear mapping that delineates the watershed boundaries for the proposed development site for existing and post construction conditions. (Section 401.C) **Status: At the current 1-400' scale, the limits of pre- and post- developed drainage areas, and time of concentration runoff paths are unclear. Exhibits at a legible scale should be provided for review for confirmation of existing and proposed conditions. Complete lengths for time of concentration runoff paths must be provided for each drainage area as applicable.**
7. The Ordinance requires the hydrologic parameters used to develop peak flow rates shall be reflective of anticipated soil runoff characteristics following grading and development of the site. (Section 501.E) **Status: The report includes options for both grass and turf field areas. The final proposed configuration must be clarified prior to final approval, and included in as-built PCSM plan and calculations.**
8. The Ordinance requires time of concentration calculations be provided. (Section 501.F) **Status: Several post-development times of concentration are greater than pre-developed calculations. Post-developed times of concentration cannot exceed pre-developed times of concentrations.**
9. The Ordinance requires for pre-development calculations, 20% of existing disturbed impervious areas should be classified as meadow in good condition. (Section 501.D.2) **Status: Clarify if 20% requirement has been met as calculations do not denote the 20% impervious as meadow land cover condition.**
10. The Ordinance requires the hydrologic parameters used to develop peak flow rates shall be reflective of anticipated soil runoff characteristics following grading and development of the site. (Section 501.E) **Status: Post-development conditions note meadow land cover conditions. All disturbed pervious areas should be classified as open space for hydrograph calculations.**

11. The Ordinance requires the long-term operation and maintenance of the stormwater facilities be provided. (Section 502) **Status: The Applicant should contact the Township to initiate execution of a Stormwater Operations and Maintenance Agreement if not already complete.**
12. The Ordinance requires all stormwater collection and conveyance facilities (pipes, swales, and structures) shall be designed for a 100 -year design storm event. (Section 502.A) **Status: Culvert Drainage Area maps for conveyance analysis of the culvert south of SWMF-2 include areas upstream of the drainage channel conveying to SWMF-2. Clarify how discharge values have been calculated, corresponding hydrographs have not been included for this area.**
13. The Ordinance requires Swales and channels shall provide at least one foot of freeboard above the energy gradeline. (Section 503.A) **Status: Channel calculations indicate 0.5 foot freeboard, please revise accordingly.**
14. The Ordinance requires conveyance calculations be provided for the 100-year storm event and the HGL be contained within the pipe and 2' below the surface elevation. (Section 502.A) **Status: HGL calculations have not been provided.**
15. The Ordinance requires stormwater management facilities have an emergency spillway to convey the 100-year peak flow with a blocked primary outlet structure and inundation of water to the spillway invert with a minimum of 1 foot of freeboard. (Section 503.B) **Status: Clarify the location of emergency spillways for both facilities as they are not consistently shown on all plan sheets.**
16. The Ordinance requires stormwater management facilities have an emergency spillway to convey the 100-year peak flow with a blocked primary outlet structure and inundation of water to the spillway invert with a minimum of 1 foot of freeboard. (Section 503.B) **Status: Routing calculations appear to breach the emergency spillways during the 100-year storm event; spillways should not be breached during normal routing calculations.**
17. The Ordinance requires stormwater management facilities have an emergency spillway to convey the 100-year peak flow with a blocked primary outlet structure and inundation of water to the spillway invert with a minimum of 1 foot of freeboard. (Section 503.B) **Status: Emergency spillway calculations have not been provided.**
18. The Ordinance requires stormwater management facilities have an emergency spillway to convey the 100-year peak flow with a blocked primary outlet structure and inundation of water to the spillway invert with a minimum of 1 foot of freeboard. (Section 503.B) **Status: The stormwater management report indicates the emergency spillway adjacent to a 36" storm sewer; provide clarification of grading in the area. Additionally, clarify the location of the watercourse for this discharge location.**
19. The Ordinance requires stormwater facilities be equipped with an access road at least 10' wide and maximum grade of 15%. (Section 503.G) **Status: Clarify the access road locations.**
20. The Ordinance requires facilities be equipped with a 6' tall chain link fence. (Section 503.E) **Status: Fencing has not been provided for the proposed stormwater facilities.**

21. The Ordinance requires the discharge of stormwater runoff shall be to a well- defined drainage course, which has a defined bed and bank. (Section 503.H) **Status: The location of corresponding watercourses have not been provided, similarly corresponding rip rap aprons are not depicted consistently across plan sets for each endwall location.**
22. The Mutual Cooperation Agreement, dated October 19, 2021, between the Borough of Leetsdale and QVSD identifies that “Storm water detention facilities on the District Property will be designed to paritally address the excess water flowing through the site originating at the Quaker Heights development.” The PCSM report should specifically address how the applicant has addressed this condition of the Agreement. Confirmation should be provided that Leetsdale Borough considers the condition to be satisfactorily addressed.

The plans have been reviewed for conformance to Township Ordinance standards only. The review is based on surveys and drawings prepared by others and assume this information is correct and valid as submitted. Independent confirmation of adequacy or applicability of surveys, design data or procedures has not been provided.

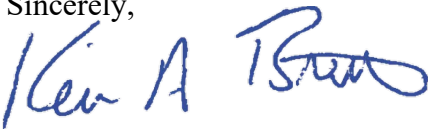
The plan, as submitted, does not conform to the Township of Leet’s Zoning Ordinance (Chapter 27), Subdivision and Land Development Ordinance (Chapter 22), and Stormwater Management Ordinance (Chapter 23) for a preliminary and final land development application.

Additional comments may be made, and we reserve the right to comment further pending submission of revised plans.

The Applicant must provide a detailed written response to each item noted in this letter along with the plan re-submittal.

Should you have any questions, please call Shawn R. Wingrove, P.E., directly (Ext. 228).

Sincerely,



Kevin A. Brett, P.E.



Shawn R. Wingrove, P.E.

KAB/SRW:als

cc: Charlie Gauthier, QVSD Director of Facilities & Administrative Services (gauthierc@qvsd.org)
Harlan Stone, Babst Calland (hstone@babstcalland.com)
Dan Slagle, P.E, Leetsdale Borough