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PHASE 1A LAND DEVELOPMENT PLAN REVIEW LETTER #2

MIDDLESEX TOWNSHIP, CUMBERLAND COUNTY, PA

Attn: Mr. Bud Grove, Township Engineer

Preliminary Land Development Plan for Pennsylvania Digital 1 (PAX-1) Phase 1-A

Middlesex Twp Plan No. TPF 25-17

December 18, 2025

We have completed our review of the following information for the above-referenced project:

Submission:	Dated:	Last Revised:
Plan Sheets 1-64 of 64 [Plan]	August 18, 2025	November 21, 2025 (142 sheets)
Post Construction Stormwater Management Report [SWM Report]	August 17, 2025	November 2025
SWM Infiltration Report	October 24, 2025	
Environmental Impact Assessment	August 2025	November 2025
EIA Response Letter		November 17, 2025
Woodlands Evaluation Narrative		November 2025
Comment Response Letter	November 21, 2025	--

The applicant has submitted the following requests for relief:

Requested Waiver[s]:	Ordinance Section:
Plan Sheet Scale > 1" = 50 ft	501.A.2
Location Map Scale > 1" = 1,000'	501.A.6
Curb and Sidewalk along Country Club Road	703.A.10

Depressed Curb at Driveway Entrance	703.I.4
Grading Within a Street Right of Way	703.M
Street Horizontal Curve Radius	703.H.2
Street Width	703.C.1
Deferral of Sidewalk Requirements	707
Plan Scale for Maps Within the EIA	718.D.3.A, 718.D.4.B, 718.D.4.C, 718.D.4.D
Detention Basin Slopes	303.J.3
Swale Grades	303.K.9
Dewatering	303.H.17
Infiltration of Stormwater	303.B.2

We offer the following comments [* - Indicates comments not addressed from previous review letters]:

ZONING

Comments are keyed to our prior review letter of October 14, 2025. Updated/new comments are italicized or added as noted. Items not listed have been satisfied, in our opinion.

1. Provide a water feasibility study addressing all requirements of the Ordinance [Ord 3-2025 24.07]. *Applicant notes that a water feasibility study is not required for this phase as there are no restrooms. Applicant notes the Environmental Impact Assessment was updated. Further comments deferred to EIA reviewer. Zoning comment addressed.*
2. Data Center Zoning Overlay requires an Electric and Noise Study. These do not appear to have been submitted. [Ord 3-2025 24.08 and 24.09]. *Applicant notes the noise study is being prepared by a third party and will be submitted in the coming weeks. Comment remains.*
3. Submit an interconnection agreement from the electric service provider [Ord 3-2025 24.08] *A 10/30/25 PPL confirmation of service availability letter was provided as Exhibit 5 in Section D.10 of the EIA (page 721 of 761). The letter notes that PPL has the ability to provide 1.35 GW of peak demand load, also noting that system upgrades will be required. It notes the applicant needs to complete all agreement requirements by January 2026 in order to provide service by June 2027. The applicant shall provide the interconnection agreement once available along with known impacts on electric rates or availability for other users.*
4. Proposed lot coverage and impervious are both shown as <70%. Provide actual percentage, along with Acre/SF. [Ord 3-2025 24.03]. *Lot coverage is now shown as 33.2% on sheet 2, provide the square foot and acreage cover.*
5. Proposed building height is shown as <75ft. Provide actual building height. [Ord 3-2025 24.03] *Building height shown as 30 ft on sheet 2, comment addressed.*

6. Parking requirements are noted as TBD. Provide actual quantitative parking requirements. [Ord 3-2025 24.04.B and 14.10] *Applicant notes that off street parking is not required, comment addressed.*
7. Within the Zoning Regulations, sheet C1A 002, minimum rear yard setback should be 35 ft. Revise the table and Plan sheets accordingly. [Ord 3-2025 24.03]. *The Zoning Data Table was revised to show a 35 ft rear setback, comment addressed.*
8. Within the Zoning Regulations, sheet C1A 002, revise the Building Façade requirement to note that it shall apply to all Building Facades that are orientated and face toward an abutting: [1] public street, [2] lot with an residential use within 1,000 feet of the Building Façade; or [3] lot within a Residential District within 1,000 feet of the Building Façade [Ord 3-2025 24.04.A.1] *Zoning Data Table has been revised accordingly. Applicant notes no principal façade buildings are associated with this Phase. A 1,000 ft Building Façade setback is shown on C1A 007 (sheet 7). For this Phase and future phases our opinion is the 1,000 ft Building Façade setback should follow the property boundary as the site is bound by public streets and/or Residential District lands. (Within the 11/21/25 Livic response letter, Zoning response 8 is cutoff/truncated.)*
9. It appears the Substations would be considered as mechanical equipment. Mechanical equipment shall be screened on all sides. It appears some evergreen trees are proposed; however, this may not provide screening on all sides. Revise the Plan accordingly. [Ord 3-2025 24.04.B.2.a.[1]]. *On sheet 602 – it appears additional screening is needed on the west and north side of Substation 2 Quartz, Substation 1 Gran and associated electrical duct banks.*
10. On the Landscape Sheets a landscape table is included. The plant material shall be labeled in plan view and quantity noted in the landscape table. This will assist with confirming the mechanical equipment screening is appropriate. [Ord 3-2025 24.04.B.2.a.[1]]. *On sheet 602-607, the landscape shall be labeled and quantified in Plan view. On sheet 602, in the landscape table, the Eastern Red Cedar (JV) should be included as an evergreen, similar to other tables.*
11. Soundproofing of mechanical equipment shall be provided on the exterior of the lot, abutting a lot with an existing residential use. This requirement shall be noted within the Zoning Regulations sheet C1A 002. Alternatively, provide confirmation that the noise level will not exceed 70 dBA, as measured at the property line [24.09]. [Ord 3-2025 24.04.B.4]. *Applicant is preparing a noise study and believes 70 dbA at the property line will not be exceeded. The noise study should assess the full development noise level, not just the individual phase noise level. This noise study will be reviewed once received.*
12. A lighting note should be added on sheet C1A 701, referencing the after-hours safety and security lighting requirements. If it can be shown that an elevated security risk exists the Board of Supervisors may approve an increase in after-hours lighting illumination levels [12-2008, 711.D.4.d]. *Since the substations are an all-hour operation dimming is not required. Comment addressed.*
13. The light mounting height is shown as thirty [30] feet on sheet C1A 701. The typical mounting height is twenty [20] feet. The Board of Supervisors may permit a mounting height not to exceed twenty-five [25] feet in commercial/industrial districts meeting certain requirements. If thirty [30] feet is desired a variance will be required. [12-2008, 711.D.4.k]. *The design was revised to provide a 25 ft light mounting height. To qualify for a 25-foot light mounting height full cutoffs shall be provided, this is included as lighting note bullet 3. Provide a lighting cut sheet confirming that full cutoffs are provided and note this in the luminaire schedule description. This height also appears to be at the discretion of the Board of Supervisors.*
14. On lighting sheets C1A 703 & 705, the light trespass appears to exceed 0.1 fc at the eastern property line [12-2008, 711.D.4.f]. Review and revise accordingly. *Comment addressed.*
15. Confirm the lighting and landscape have been coordinated. On lighting sheet C1A 701 & 704, there is at least one street tree canopy that overlaps the light pole, other marginal conflicts may exist [12-2008, 711.E.5]. Review and revise accordingly. *Revise the light pole conflict on sheet C1A 704 across from Substation 2 Quartz/PPL Substation Bern.*
16. Signage, if proposed, shall comply with applicable requirements. *Applicant notes no signage is proposed. Comment addressed.*

SUBDIVISION AND LAND DEVELOPMENT

1. All plan sheets shall not exceed a scale of 1":50' [501.A.2] **Applicant is requesting a waiver of this requirement.**
2. Provide a Table of Site Data that contains all information required by this section. Complete the Source of Title information following the recording of the subdivision plan [501.A.15].
3. Show all hydrant locations, structure and pipe locations, pipe sizes, slope and type of material, and other related information for the proposed water extension [501.C.13].
4. Show the right-of-way for all of Country Club Road on the plan. Show the right-of-way for the south side of Country Club Road on plan sheet [501.C.14.b].
5. Identify the beneficiary of all existing and proposed easements on the plan [501.C.19]
6. Provide certifications for the project Geologist, Landscape Architect and Registered Design Professional matching the language of Exhibit 4.C. Provide certifications for the project Geologist and Registered Design Professional [503.A.2 & Exhibit A4.C-E].
7. Provide a complete PADEP Sewage Planning Module. Provide a copy of the approved non-building waiver once it is received [503.A.3].
8. The Middlesex Township Municipal Authority shall have the responsibility to ensure that all requirements of the Ordinance that pertain to public water and/or sanitary sewerage facilities are complied with [712]. Provide a report from Authority confirming that proposed water and sewer designs meet technical requirements. Provide approval of the watermain design once received [503.A.9].
9. Ensure the plan complies with Section 703.I for any proposed driveways [703.I] **Applicant is requesting a waiver of Section 703.I.4 to allow flared curbs.**
10. Provide vertical curves at all changes in grade and shall be designed in relation to the extent of the grade change and to provide the proper minimum stopping sight distance with respect to vertical alignment. Vertical curve information appears to be missing from the plans. Vertical curve information is still missing from C1A 501-510 or is cutoff on these sheets [703.L.2].
11. Ensure that the design complies with Section 703.M regarding Designs within Street Right-of-Way [703.M] **Applicant is requesting a waiver of this requirement.**
12. Easements shall be provided for storm drainage facilities, storm water management areas, Best Management Practice [BMP] areas, sanitary sewer and water facilities, natural features areas, access ways, overhead or underground public or private utilities, and other special purpose easements. All easements must be connected to a public street in order to provide access to said easement area. Provide easements for natural features areas [704].
13. Sidewalks must be installed along both sides of all new interior streets in all commercial and industrial land developments within the Township unless otherwise waived by the Township. Sidewalks must also be constructed along the side of all exterior streets upon which the land development fronts [707.A.1] **Applicant is requesting a waiver of this requirement.**
14. Non-residential developments shall dedicate a minimum of ten percent [10%] of gross land area for park or recreation use. The developer is electing to provide a fee-in-lieu of dedication, per Section 710.E [710.A.3.b]
15. Provide a Preliminary Landscape Plan that contains all requirements set forth in Section 719.B.1.a-h.
16. If/when the project is submitted as a Final Land Development plan, provide a Final Landscape Plan [719.B.2 and 3].
17. Provide a design for street trees that meets 719.C.6.b, e, and f [719.C.6.b,e,f].
18. Roadway slope is missing on Sheet C1A510. Label the proposed grade [General].

19. Proposed roadway contours appear to need reviewed throughout the design. Roadway contours appear to need reviewed on Sheets C1A 507 and 509 [General].
20. It appears that surface water runoff will become concentrated at the eastern end of the landscaping berm on Sheet C1A 307, please reconcile or label this section as a channel. This comment pertains to the eastern portion of the landscaping berm which extends north, parallel to the property line, between the 499 and 503 elevation contours [1102.A.3].
21. The following toes of fill slopes are closer than twenty-five feet (25') from an adjoining property line. Please reconcile [1103.C].
 - a. Sheet C1A 303: Basin A3 eastern berm, it appears that grading remains to be proposed within the 25-foot limits of the property line for Basin A3.
22. If/when the plan advances to final land development plan stage, site grading shall be a financially secured site improvement and shall be included in the construction cost estimate for site improvements required by Article XIII of the SALDO [1104.B].
23. *Indicate how disturbance to perennial streams including stream riparian buffers, natural drainageways, and drainage swales is avoided. Provide evidence of PADEP approval for any permits which are required for the land development [1202.C.1.a].
24. *Earth disturbances appear to be shown on slopes exceeding twenty-five percent (25%), which are not in conjunction with a driveway to a single-family dwelling [1202.E.1].
25. *Earth disturbances appear to be shown on slopes between fifteen and twenty-five percent (15-25%), which are not in conjunction with the siting of a single-family dwelling, its access driveway, and an on-lot sewage disposal system [§1202.E.2].
26. *Provide clearance letters from state and federal agencies for all potential impacts shown on the PNDI and list the avoidance measures on the Land Development Plan. *Provide the updated PNDI and clearance letters in the EIA* [§1202.E.2].
27. *Protection of trees from Mechanical Injury may be required by the Board of Supervisors [§1206.A].
28. *No topsoil shall be removed from the site [§1206.D.1].
29. Correct overlapping text on the profile on Sheet C1A 502 [General].

ENVIRONMENTAL IMPACT ASSESSMENT (SUBSECTIONS OF SALDO)

1. *Provide a Geological Plan at a scale of no more than one inch to one-hundred feet (1" = 100'). (Note the provided plan scale is 1" = 500'). **A waiver has been requested for this requirement** [§718.D.4.a].
2. Provide a Site Development Plan at a scale of not more than one inch to one-hundred feet (1" = 100'). **A waiver has been requested for this requirement** [718.D.3.a].
3. *Provide plans and elevations depicting the proposed size, square footage, height, number of rooms (where applicable) of building and/or other structures. *HRG acknowledges the engineer's response that due to the proprietary and secure nature of the proposed buildings, internal specifications of building and room layouts are not provided at this time and will be circulated to the township upon building permit and/or Final Land Development application stage* [718.D.3.b].
4. *Identify any lineaments, fracture traces, caves, and karst related sinkholes any closed depressions on the Geological Plan. *Lineaments and fracture traces have not been identified on the Geological Plan* [§718.D.4.a].
5. *Provide a Topographical Plan at a scale of no more than one inch to one-hundred feet (1" = 100'). (Note the provided plan scale is 1" = 500') **A waiver has been requested for this requirement** [718.D.4.b].
6. *Provide Soil Plan at a scale of no more than one inch to one-hundred feet (1" = 100'). (Note the provided plan scale is 1" = 500'.) **A waiver has been requested for this requirement** [718.D.4.c].

7. *Provide the Hydrogeological Plan and Wetlands Exhibit at a scale of no more than one inch to one-hundred feet (1" = 100'). (Note the provided plan scales are 1" = 500'.) **A waiver has been requested for this requirement** [718.D.4.d].
8. *The PNDI included in the EIA is dated 6/12/2024, however, the PNDI system was updated in July 2025. Provide an updated PNDI. *Remove the outdated draft PNDI (pages 94 through 99), remove the outdated DNCR letters (pages 354 through 356), and remove the outdated PNDI and clearance letters (pages 390 through 398), and replace all with current* [718.D.5].
9. The page 526 title page lists the next map as the "Section 718.D.6.b - Existing Campus Plan", however, the map on page 527 is a copy of the Land Use – Section 718.D.6.C. That map is also repeated on page 529. Please correct [718.D.6.].
10. *The EIA notes that surveys/coordination with the PHMC are ongoing and that a reconnaissance-level historic architecture survey was conducted by SWCA Environmental Consultants, and that the final report will be forthcoming. Provide a clearance letter, report, and any other correspondence with the PHMC. *Also include an acceptance letter from PHMC for the proposed historic structures mitigation in the EIA* [718.D.7].
11. Pages 530 and 531 seem to be in the wrong place. It appears they should fall after page 532 to be in Section 718.D.7 – Historic Resources [718.D.7].
12. Provide additional construction-related information regarding noise and vibration in the Environmental Safety / Environmental Characteristics and Conditions Assessment, such as what the blasting noise level will be in decibels, and a survey of private wells and structures existing within the applicable radius of blasting. Wells in carbonate aquifers can be particularly susceptible to impacts from blasting [718.D.14].* The applicant has indicated that a blasting study and survey of adjacent wells and structures will be provided in the future. This information should be submitted for review before the EIA is approved.
13. Provide more information about how the southeastern portions of the site will be recessed into the hillside and thereby limit visibility of the building. Indicate whether the hillside will be excavated or blasted in order to construct the building, and address slope stability. Line of sight profiles may be required to demonstrate the impact on visual resources [718.D.8].* The revised submission has addressed the line of sight aspects of this comment, but the questions regarding excavation and blasting have not been addressed.
14. *Provide a discussion on the adverse impacts to aquifer recharge volume and recharge to Conodoguinet Creek, as well as secondary impacts to flora and fauna resulting from the recharge impacts. *Aquifer recharge volume and recharge to Conodoguinet Creek has not been addressed in this section* [718.D.17].
15. *Provide the calculated average volume of groundwater recharge reduction in "Environmental Changes" section. *HRG acknowledges this will be forthcoming* [718.D.19].

STORMWATER MANAGEMENT

1. Demonstrate that an NPDES permit has been secured for the proposed site disturbance. [109]
2. Demonstrate that a Blasting Activity Permit has been secured for any blasting work associated with the proposed earthmoving activities. [109]
3. Revise the scale on sheets C1A 102 – C1A 108 to be at the correct scale. Currently, the scale is depicted as 1" = 150' but appears to be at a 1" = 50' [302].
4. Provide soil boundaries and their HSG on the SWM Plan [302.A.7].*
Ensure that all soils are labeled on each plan sheet so that the soils can be easily identified without viewing a separate plan sheet.
5. Provide the limit of disturbance on the Grading Plan and label the acres and square feet [302.A.18].*

The limit of disturbance on the Grading & Stormwater Plan sheets should only depict what will be disturbed for this phase and not the overall disturbance of the total project.

6. Provide proof of NPDES and PADEP permit and any other required regulatory permit submission. Provide copy of submitted documents for reference [103.J & 301.Q].*
7. Provide a min. 20' wide drainage easement with metes and bounds along all stormwater management facilities, channels and inlets [303.J.12 & 303.K.12].*

The Applicant proposes a blanket easement for all stormwater facilities. This is not allowed as the ordinance specifically requires a defined easement around the above-mentioned facilities.

8. Ensure all proposed contour lines tie into existing contour lines and all proposed contours are shown. For example, the proposed contours lines at the western and northern access do not appear to be complete. [302.A.18].*

The proposed contour lines still do not appear to tie into existing contours lines along the north side on PA Data Drive and at the two driveways to Phase IB and 2.

9. Provide the operation and maintenance (O&M) plan on the Land Development Plans. The O&M plan should clearly explain who is responsible, how the proposed facilities operate, how they shall be maintained and any other items as listed in 501.C of the Stormwater Management Ordinance [302.F & 501.C].*
10. The O&M Plan should contain a note, in a form satisfactory to the Township Solicitor, designating the entity responsible for operation and maintenance of the stormwater management facilities consistent with the approved O&M Plan, and in the event that the responsible person or entity fails to do so, granting to Middlesex Township the right but not the duty to enter upon the premises to repair or restore said facilities, to charge and assess the costs thereof to the owner, and to enforce said charges and assessments by lien upon the property [501.B.1.a].*
11. Provide protection from excess compaction around the proposed stormwater management facilities to promote the possibility of infiltration as much as feasible [303.H.20].*
12. The minimum side slopes for all swales is 4:1. Revise accordingly [303.H.24.e].* **A waiver has been requested for this requirement.**
13. Polychlorinated Biphenyls (PCBs) are a known contaminant from substations. The discussion of the potential for PCB contamination and how they are mitigated should be included either in the EIA or the PCSM Report. [303.K.14].*

The engineer states that the final substation design will include an Oil Containment System designed by PPL. The Final Phase IA Land Development Plans should provide additional details on the Oil Containment System designed by PPL's substation engineer Silvey. This comment will be considered addressed for preliminary plan purposes.

14. There appear to be two culverts which convey existing channel 06 and a section of USACE jurisdictional wetlands under proposed PA Data Drive. The proposed culverts need to have separate profiles on the plans, and calculations provided for the sizing of the culverts. Confirm that sufficient cover is provided between the wetland culvert and the storm sewer system in the roadway. Additionally, a note should be called out at each crossing identifying that a PADEP permit is necessary. Once the permits are received the callouts should be revised to reference the permit number [301.Q & 302.A.12].*
15. The Roadway Profiles need to label the storm sewer cross pipes with size, slope, and material. Alternatively, the storm sewer cross pipes can be shown on a separate profile [302.A.12].*

It appears that many cross pipes still do not have storm pipe labels on the Roadway Profiles or a separate profile within the Land Development Plans.

16. If/when the project advances to a Final Land Development plan, the deed of each lot shall contain a covenant binding the grantee and all successors title and interest designating the responsibility for operation and maintenance of the stormwater management facilities. Reference to this covenant shall be noted on the cover of the Plans [501.B.1.a].*

The Applicant has acknowledged that this will be provided on the cover of the final Land Development Plans.

17. If/when the project advances to a Final Land Development plan, provide a signed and executed O&M agreement. The O&M agreement shall be recorded within fifteen (15) days of approval of the O&M Plan by the Middlesex Township [502].*

The Applicant has acknowledged that the executed O&M agreement will be provided and recorded at the appropriate time.

18. Storm structures shall be placed such that no more than three hundred (300) feet of storm pipe is proposed without a structure for access. Storm Inlet I-59.1 to MH-59.1-38 MH-32.1 to MH-10.2 and FA-A1 to MH-34.1 contains more than 300 feet of pipe. Reside accordingly [303.K.7].
19. The minimum inside side slopes for a detention basin is 4:1 and the bottom of the basin shall be sloped at a minimum of 2%. **A waiver has been requested for this requirement** [303.J.3].
20. The minimum longitudinal slope of a swale is 2%. **A waiver has been requested for this requirement** [303.K.9].
21. Discharges into and out of detention basins shall be separated by the maximum length possible in order to preclude short-circuiting of flow directly to the basin outlet structure and to maximize the flow path through the basin. It appears that several inlets into the basin would be discharged near the outlet structures. Demonstrate compliance with this ordinance [303.J.5].
22. Pipe inverts into a detention basin shall be a minimum of six (6) inches above the bottom of the basin. Revise accordingly or request a waiver [303.J.4].
23. Provide a childproof non-clogging trash rack on all outlet structure openings exceeding twelve (12) inches in diameter [303.J.7.e].
24. A sediment forebay with a hardened bottom shall be provided at each inlet into detention basins [303.J.11].
25. The soil legend on the Grading & Stormwater Plan sheet C1A 302 covers up a portion of the roadway and some storm pipe labels. Revise accordingly [General].
26. Provide a structure label for EW-10.1 and a pipe label for the downstream pipe on profile FES-4 to EW-10.1 profile and a pipe label between structures MH-38.1 to FES-38 on the FES-38 to EW-38 Profile [302.A.12].
27. Provide storm profiles for the following storm sewer runs [302.A.12]:
- MH-13.1 to FES-13.2
 - MH-33.2 to FES-33.1
 - MH-33.3 to FES-33.2
 - FS-C1 to FES-C1.1
 - MH-C1.2 to FES-C1.2
 - FS-C1 to FES-C1.3
 - FES-33.1 to MH-33.2
 - FES-33.2 to MH-33.3
 - FES-21.1 to FS-V5-1

- j. FES-17.1 to FS-V5-2
 - k. EW-01 to I-4.2
28. The Alignment 22 Profile depicts the Entrance No. 2 culvert to be located above grade. Revise the plan accordingly to provide sufficient cover above the 15" SLCPP driveway cross pipe [302.A.12].*
- The EW-22.1 to EW-22.2 Profile still depicts the 15" SLCPP above grade.
29. Clarify the purpose for leaving the existing access drive to the west of Entrance No. 1 in place and why the proposed storm pipe is placed below grade at a 0% slope [General].*
- The Engineer states that this access drive and storm cross pipe will be utilized for the construction laydown area and will ultimately be removed in a later project phase. This is acceptable; however, the Plan should be revised to include a callout on the plan clarifying that this is a temporary pipe and clarify what phase it is expected to be removed in.
30. Specify on the storm profiles where a non-standard inlet box is required. For example, Inlet I-13.2 is not constructable utilizing a standard box. Provide a construction detail and labeling for any type of box utilized [302.A.13].*
31. Ensure the profiles and structure labels identify the invert outs and inverts incorrectly. For example, inlet I-17.7 and I-17.5 have two invert outs and one invert in [302.A.12].
32. Ensure the profiles show the entirety of the proposed grade. See FES-7 to I-7.2 Profile, FES-13.3 to I-13.5 Profile and EW-19.1 to EW-19.2 Profile for example [302.A.12].
33. Ensure the storm profiles and storm plan labels are consistent with the MRC Basin Flow Splitter details and elevations [302.A.12].
34. Confirm that there is sufficient cover over the pipes for storm runs I-17.1 to I-17.10, EW-20.1 to EW-20.4 and I-38.1 to EW-38 under PA Data Drive and EW-22.2 to EW-22.1 under the driveway Entrance No. 2 [302.A.12].
35. The EW-22.2 to EW-22.1 Profile show that the proposed endwalls are located below the proposed grade. Revise the profile and grading accordingly [302.A.12].
36. The profile from MH-38.1 to FES-38 on the FES-38 to EW-38 Profile shows that there is no cover over most of the pipe. Revise accordingly [302.A.12].
37. The top of grate (T/G) elevation for I-18.3, I-24.2, I-24.3, I-25.1, I-26.1, I-26.2, I-34.1, I-38.1 appear to be located above grade. Revise accordingly [302.A.12].
38. The top of grate (T/G) elevation for I-5.3, I-5.4, I-5.2, I-5.1, I-5.6, I-6.1, I-6.2, I-16.3, I-16.2, I-16.1, I-13.1, I-17.4, I-17.6 and I-17.8 appear to be located significantly below grade. Revise accordingly [302.A.12].
39. Outlet Structure OS-40 has the bottom of the box located above the bottom of the basin. Revise the profile and Basin A3 Outlet Structure detail to clearly depict the intent of the outlet structure and how it will be constructed. Additionally, ensure all elevations are consistent between the profile and detail [302.A.12 & 302.A.13].
40. The Detention Basin R-2 outlet structure has a T/G elevation of 442.25' and an outlet pipe invert of 436.73' whereas the PCSM Report has the T/G elevation at 437.75' and the outlet pipe invert at 436.00'. Additionally, ensure the storm profile for OS-28 to FES-28 is also consistent [302.A.12].
41. Ensure the storm profile for OS-30 to FES-30 and OS-29 to FES-29 is consistent between the Basin C1 Outlet Structure detail and Basin D1 Outlet Structure detail respectively and the routing calculations in regard to inverts and pipe slopes [302.A.12 & 302.A.13].
42. Inlet I-25.2 is located behind the curb. Confirm if this is the intent or revise accordingly [General].
43. Label the stream culvert endwalls and the MRC Cell outlet structure and end section for Detention Basin C1 on the grading & stormwater plan sheets [302.A.10].

44. The Detention Basin R-2 spillway label on sheet C1A 302 appears to be incorrect. The spillway is located to the north at elevation 437.75' on the plans but is 125' wide at elevation 438.60' in the PCSM Report. Revise accordingly [302.A.10].
45. Ensure all stormwater basins / MRC facilities have sufficient contours lines depicted on the Grading & Stormwater Plan [302.A.6].
46. Revise the MRC Cell bottom elevation on the R2 MRC Cell Profile (sheet C1A 518) to be 440.00' to be consistent with the PCSM Report [302.A.12].
47. Ensure the MRC Cell Outlet Structure Detail and A1 MRC Cell Profile is consistent. For example, the top of structure elevation is listed at 452.00' on the profile but at 453.00' on the profile [302.A.12].
48. Confirm that the invert out elevation for all MRC Basins on the MRC Cell Outlet Structure Detail are correct as it appears that the outlet elevation should be lower than what is shown on the detail [302.A.12].
49. Ensure that the outlet pipe slope and length within the PCSM Report for the routing calculations are consistent with what is shown on the Land Development Plans [302.A.12].
50. There is no outlet structure for the northern and southern MRC cell to Detention Bain C1. Confirm if this is the case [302.A.10].
51. The spillway elevation for Basin A3 is inconsistent between the plans (C1A 303) and PCSM report. Additionally, confirm the spillway lining type as the same plan sheet references a different lining than the MRC / Infiltration Basin detail [302.A.10 & 302.A.13].
52. The channel calculations within Appendix V of the PCSM Report have differing channel dimensions for Channels #3, #4, #7, #12A and #12B between the rational and SCS designs. Revise accordingly [302.D].
53. Provide riprap apron details and calculations for FES-13.3, FES-R2.2, FES-R2.1, FES-C1.1, FES-C1.2, FES-C1.3, FES-4, FES-33.1, FES-33.2, FES-A1.1, FES-A1.2, FES-A1.3, FES-V5.1, FES-V5.2, and FES-33.3 [302.A.13 & 302.D].
54. Ensure the pipe size for FES-17.2, FES-32.1, FES-34 and FES-21.2 are consistent between the profiles, riprap details and riprap calculations [302.A.12 & 302.D].
55. In BMPs/SCMs where either amended soils are to be placed or infiltration is anticipated to occur add water quality pretreatment (forebays or other applicable methods) at points where concentrated discharges enter the basin. [303.H.7].*
The forebay for Infiltration Basin D1 should be depicted on the Grading & Stormwater Plan.
56. All basins are labelled as wet ponds/retention basins in the PaDEP spreadsheets. Details for the basins have a lowest orifice above the amended soil level. The SWM Ordinance defines Retention/ Wet Ponds as an impoundment designed to maintain a permanent pool of water standing longer than 48 hrs. Retention basins/wet ponds are prohibited in the Township. [303.I].*
A waiver has been requested allowing a dewatering time of 72 hours rather than 48 hours. If approved, then this comment is no longer applicable.
57. Provide documentation that all infiltration practices or alternative volume mitigation measures such as evapotranspiration move all surface ponding sub surface within 48 hours. [303.H.17].*
A waiver has been requested for this requirement. If approved, then this comment is no longer applicable.
58. The Landscaping Plan shall be signed and sealed by a professional landscape architect or a landscape professional with adequate experience in selecting plantings for special or unique uses [302.L].
59. Provide existing conditions ground cover map delineated by shading, hatching, color coding, etc. which includes percentage of existing cover on the map [302.A.4].*

Provided existing conditions map does not contain sufficient detail to review volume calculations. Additional detail required in the location of POA drainage boundaries, POA locations, and survey information/aerial imagery to support delineation. Exhibit scale should conform with other PCSM sheets.

60. Provide proposed conditions ground cover map delineated by shading, hatching, color coding, etc. which includes percentage of existing cover on the map [302.A.9].*

Provided conditions map does not contain sufficient detail to review volume calculations. Additional detail required in the location of POA drainage boundaries, POA locations, and survey information/aerial imagery to support delineation. Exhibit scale should conform with other PCSM sheets.

61. Provide a Stormwater Soils and infiltration investigation report. Infiltration testing results and test pit exhibit were provided, however no report, methodology, soil profiles, photos, etc. were provided. [303.B.2 & 303.H.9].*

See Response to IT report comment.

62. Provide a written section within the PCSM Report to support why the use of ET was selected and how the infiltration testing and geotechnical results prohibit traditional infiltration practices [303.B.2].*

Resolved pending PaDEP approval of Predevelopment site condition assessment and NPDES permit.

63. Provide locations of soil test pits, soil profiles, and infiltration tests on either the "Phase 1A Overall Stormwater and Grading Plan" and/or the PCSM Report/Stormwater Soils and Infiltration Investigation Report. This documentation should demonstrate compliance with section 303.H.12, including, but not limited to, the number of infiltration test pits and soil profiles located at the bottom elevation of each proposed BMP/SCM.*

Complete infiltration report with test pit logs has been received, neither the report, supporting calculations, or PCSM indicate which test pits are associated with which SCM. Please provide test pit locations and IDs within each SCM footprint graphically on C1A 008. The ECS location map contains no proposed features and is insufficient to locate the tests within SCM footprints.

64. The proposed design utilizes non-infiltration BMPs/SCMs in a non-karst area. Please provide documentation in the PCSM Report and Appendices that the standard set forth in 303.G.1b is satisfied for all areas where infiltration is proposed. This may include the volume used to satisfy state requirements [303.H.2].*

Applicant has provided supporting PaDEP calculations please provide documentation and a statement in the PCSM report indicating this volume exceeds the required groundwater recharge volume. This section should document how much water is being infiltrated on site verses treated by MRCs the submission of an approved PaDEP predevelopment site characterization (Comment 11) shall serve to satisfy the inability to retain the required volume on site and mitigate it using approved methods (MRCs).

65. Provide a separate stormwater site assessment in accordance with Chapter 4 of the PA BMP Manual or clarify how the submitted Environmental Impact Assessment (EIA) provides sufficient information regarding how the location of the stormwater management facilities were placed to maximize the potential for groundwater recharge [302].*

Resolved Pending acceptance of EIA

66. The following deficiencies were noted in the O&M plan contained in the PCSM report. Note deficiencies shall be corrected in the O&M plan in the PCSM report and in the copy of the plan added to the Land Development record plans. *

- a. Adjust dewatering time for Infiltration Basin, Evapotranspiration Basin, and Vegetated Channel to 48 hrs [303.H.17].

HRG 12.18.25- Addressed.

- b. Include the requirement to submit report summarizing findings of inspections to Middlesex Township within thirty (30) days of inspection for Infiltration Basin and Evapotranspiration Basin BMPs [501.D].
HRG 12.18.25 – Not addressed.
 - c. Define inspection and reporting frequency for Vegetated Channel and vegetated Landscape areas if they are credited water quality BMPs/SCMs [501.D].
HRG 12.18.25 - Add note indicating for conveyance only.
 - d. Quantify mowing frequency for all BMPs/SCMs based on specified plantings. (example native seed mixtures shall be mowed annually between November and March) [501.C.2 and 501.C.4].
HRG 12.18.25 – Not addressed, clarify based on specified plantings.
 - e. Clarify reference to emergency dewatering pipe in O&M plan for infiltration basins, outlet structure details do not indicate the presence of emergency dewatering devices. [501.C.3].
HRG 12.18.25 – If not included on this job remove reference.
 - f. Clarify which O&M section applies to each BMP/SCM utilizing naming conventions similar to labels on record plan or supplemental O&M exhibit. [501.C.3].
HRG 12.18.25 – Note O&M on record plans as it applies to each named SCM and in PCSM report.
67. Provide identification of any additional Water Quality BMPs/SCMs on site. O&M plan references additional SCMs not labeled on plans or in PaDEP calculations. [302.A.12]*
Provide clarification that O&M is for conveyance SCMs on all general O&M notes.
68. Provide the following Clarifications related to Tc Calculations.*
- a. Provide indications of where flow path segments transition on Pre and Post DA maps (303.D.1).
Tc flow path call outs were not addressed in drainage area maps as indicated in comments. [302.A.17] & [303.D.1].
69. The identified areas analyzed for peak rate in the existing condition (243.78 acres) and the proposed condition (220.66 acres) do not align. These numbers are noted both on the plans and in the PCSM report consistently. Please revise or explain [303.D.1].*
- The revised Phase 1A submission shows 258.9 acres of existing drainage area in pre-development conditions. The proposed Phase 1A submission shows 249.55 acres. This calculation is based on summing the provided weighted CN calculation sheets. The analysis should account for the rerouting of all existing drainage areas. Final review of PCSM report tables, TCs, Hydroflow calculations, and peak rate compliance is dependent on the correction of this discrepancy.
70. Please Clarify the routing diagram in POA. Basin 1A drains to un-detained and DP1 but on plans drains to DP1 and DP2. [303.D.1].*
- In proposed condition when looking at total flow at POA please clarify if the drainage area and associated flow for DP1 and DP2 are already included in POA A combined flow.
71. POI V under the volume management tab indicates 41.32 acres is tributary to the two basins but support documents to basin subareas 36.9 acres. Please clarify inconsistency. [303.G].*
- See HRG comment on volume computations.
72. Provided volume calculations indicate 166.48 acres of Disturbed area between all POIs in the disturbed condition and 125.43 acres between all POIs in the existing condition. Please clarify and provide a landcover and drainage area map supporting volume calculations. [303.G].*
- Inconsistencies in area analyzed still exist in the volume calculations provided via the PaDEP spreadsheet. Provided spread sheets do not account for either the 300 acres of LOD listed on the plans, the 200 areas of disturbance listed on the provided PaDEP forms, or the 124.13 acres of landuse

indicated on sheet C1A 003. A complete review has not been completed of the volume requirements, basin volume credits, or landuse due to inconsistencies in the submission.

73. Provide MRC cell outlet locations for MRC cells associated with detention basin C1 currently only one outlet structure is graphically displayed on the PCSM plan and the Utility plan. [302.D].
74. Provide additional detail on the layout and hydraulic function of each individual MRC. [302.D].
 - a. Provide plan view layout of MRC underdrains and cleanouts on PCSM plan and Utility plan.
 - b. Provide quantification of planting totals for MRC plantings as described on sheet C1A 804.
75. Provide clarification on modelling of flow split structures for MRCs. Current DEP guidance requires the diversion of all storms greater than the two-year storm with less than a .5 ft increase in ponding depth in the MRC cells. Current hydraflow models show a theoretical sub catchment equal to 1/3 the drainage area (in the case of the MRC in C1) going to one cell. Current storm sewer appears to analyze line with a rational analysis for capacity only to detention basin. Previous designs we have reviewed have used dynamic routing to account for backwater conditions. [302.D].
76. Provide clarification of review status of MRC designs with PaDEP some conditions in the spreadsheet appear to be out of compliance with DEP guidance and DEP cautions against marking approved without reviews. Final email from PaDEP clean water indicates ultimately some level of preliminary approval but final. [302.D].

TRAFFIC

1. Demonstrate that the Traffic Impact Studies has been approved by the Township's traffic consultant [717].
2. Regarding the mitigation to install a 100' West bound Right Turn Lane at the intersection of SR 11 and Country Club Road, the TIS review engineer recommends that the applicant incorporate this mitigation in a Developer's Agreement between the Developer and Middlesex Township and revise the mitigation description in the TIS. The TIS recommendation should be worded in a way that explains that mitigation is needed for the identified movement, but the scale and nature of the mitigation will be determined by PennDOT as part of their Highway Occupancy Permitting process. The Developer can then include a statement that "Traffic analysis indicates that a 100' westbound right turn lane appears necessary and appropriate."

COUNTRY CLUB ROADWAY IMPROVEMENTS

1. The applicant has indicated that it is their intent to bond for the entirety of the Country Club Road improvements in association with the Phase 1A plan. [501.B.3]
 - a. The design provided includes only the roadway improvements along the frontage of Phase 1. Please clarify.
 - b. Provide a financial security calculation for the improvements to be bonded in association with the Phase 1 plan.
 - c. Provide a developer's agreement that sets forth the timing and mechanism whereby the construction of Country Club Road improvements will be initiated. Suggested provisions of this agreement include:
 - i. Upon notice by the Township, the developer will have 180 days to begin construction and 365 days to complete construction of the roadway improvements.
 - ii. The Township may require improvements to be constructed in up to two separate phases as work on the development proceeds, but the Township will not require roadway

construction in areas where construction traffic serving the data center site is still active. For the purpose of this agreement "no active construction" will mean no building permits or certificates of occupancy have been issued within the last 90 days.

- iii. The Township may require that construction traffic be directed to exclusively use either PA Data Drive Entrance #1 or PA Data Drive Entrance #2 if doing so would prevent construction traffic from traveling upon portions of newly constructed roadway.
 - iv. These suggested provisions assume that the entire frontage of Country Club Road will be bonded in Phase 1. If the Phase 1, Phase 2, and/or Phase 3 frontage will be bonded separately, these provisions may require modification.
2. The property abuts both sides of Country Club Road in several areas where its horizontal curves do not meet the minimum radius requirement for collector streets. Clarify how these horizontal curves will be corrected within the project area. [703.A.10 and 703.H.2]. * **A waiver has been requested for this requirement.** The request should be expanded to also include 703.A.10.
 3. Clarify the grading in the area of Entrance No. 2. It appears cross slopes of 15-20% are proposed in this area. [Table 703.1]
 4. Country Club Road is posted with a 10-ton weight limit at its intersection with Bernheisel Bridge Road. How will construction vehicles access be controlled to prevent violations of this weight restriction? [703.D.2]* The applicant has indicated that Country Club Road will be bonded along its entire length. Please confirm that it is the developer's intent to bond for the repair of Country Club Road from Bernheisel Bridge Road to US Route 11 (A length of approx. 2 miles).
 - a. If this is the case, provide a financial security estimate for review.
 - b. If the applicant only intends to bond improvements to Country Club Road along the development frontage, or only along the frontage of Phase 1, clarify how construction traffic impacts to the roadway will be mitigated where it is posted with a 10-ton weight limit.
 5. Clarify how parking will be prohibited along Country Club Road. [703.C.4]* Provide No Parking signs along the site frontage where roadway widening will make Country Club Road more susceptible to on-street parking. Alternatively, provide a roadway design which accommodates on-street parking.
 6. Clarify if and where pavement base drains will be installed. [703.D.7]* Provide notes on the plan indicating that pavement base drains will be installed if wet areas, springs, seeps, etc. are encountered during the construction of Country Club Road.
 7. A minimum pavement width of 36' (18' each side of centerline) is required for collector roads. The plan proposes 24' (12' each side of centerline.) Please revise. [Table 703.1]* The applicant has proposed an alternate configuration for Country Club Road that includes a 16' paved width from centerline on the side of Country Club Road facing the development and 12' from centerline on the opposite side of the road. The proposal also includes the full reconstruction of both lanes of Country Club Road as opposed to widening on one side only. A modification of this requirement has been requested.
 8. Demonstrate that the proposed driveway entrances are accessible to the largest fire fighting vehicle serving the area. [703.A.9]* The provided truck turning templates show the design vehicle running over the curb at PA Data Drive Entrance #2, right turn exiting movement. Please revise.
 9. Provide sight distances for the proposed intersections [703.K.1 and 501.C.15]* The applicant has depicted the available sight distances on the plan. Provide a sight distance report that addresses the requirements of 703.K.1.
 10. Provide clear sight triangles for the proposed intersections.* [703.K.3 and 501.C.15]
 11. Provide dimensions for the proposed radius at each intersection [Table 703.2]* At PA Data Drive Entrance 1, the eastern radius is labeled as "R" on roadway Sheet 7. Provide a dimension for this feature. [Table 703.2]

12. Because the design concept for Country Club road has shifted from an overlay to a full reconstruction, provide grading details, profiles, or similar information for each of the private driveways accessing Country Club Road within the project area to demonstrate that ponding water is prevented, maximum driveway slopes are not exceeded, and that grades can be tied in within the exiting ROW. [703.l]

This review is based solely on the documents referenced above and does not relieve the design professional of any responsibility, nor does it imply any design responsibility by Herbert, Rowland & Grubic, Inc. HRG reserves the right to make additional comments in the future based on newly-supplied or revised information as provided by the applicant or their representative[s].

Sincerely,

Herbert, Rowland & Grubic, Inc.

A handwritten signature in blue ink, appearing to read "J. Michael Hess".

J. Michael Hess, PE
Team Leader

JMH/LB

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