

TECHNICAL MEMORANDUM

TO: Mr. Matt Baumann, Director of Planning and Zoning

FROM: Nicholas A. Szeredai, P.E., Municipal Engineer

DATE: January 11, 2018

SUBJECT: Wayne Glen – Residential Development
Preliminary / Final Land Development Application
Technical Engineering - Review 1

McCormick Taylor, Inc. has reviewed the Wayne Glen Preliminary / Final Land Development Application and associated Plans, dated December 1, 2017. McCormick Taylor's Land Development Review has been issued under a separate cover to address the Township's ordinance requirements.

Technical / General Engineering comments in regard to the proposed application have been compiled and are being issued separately due to the complexity of the review.

The following comments are offered for your consideration:

TECHNICAL / GENERAL

1. The Settlement Agreement approved 18 waivers and 1 variance; however, the Preliminary / Final Plans do not reflect the same. Additionally, it appears **§181-46.J.7** is indicated on the plans as an approved waiver; however, it was not listed on the Settlement Plans, and should therefore be requested. The reasoning for the individual waivers should be referenced.
2. The applicant shall provide guiderail which meets all state regulations for the proposed conspan bridge. If guiderail is to not be provided, applicable clear zone calculations should be provided. Applicable details shall be provided. The proposed bridge is further subject to a Structural Engineer's review.
3. Locations of all vertical, depressed, and mountable curb should be clearly depicted on the plans. It is not clear what types of curb are proposed throughout the proposed development.
4. Walls over four feet in height are required to be reviewed by a Structural Engineer. Furthermore, all walls exceeding four feet in height should additionally contain fencing to prevent pedestrians from falling. The plans should note the same.
5. Segmental retaining walls within basins or adjacent to the Flood Hazard Area must be designed to accommodate potential water infiltration through the face of the wall. Weep holes / drainage pressure release may be required. Maintenance of the retaining walls which contain drainage through the face of the walls may be required to remove effloresce and vegetation.
6. "No Parking" signs should be provided throughout the development, as applicable.
7. The southernmost parallel parking space along Road D at the intersection with Road E should be relocated further from the intersection to ensure parallel parking vehicles do not interfere with the intersection and vehicular turning movement.

8. The following items should be addressed in regard to the Typical Carriage Home Layout and Typical Villa Layout details:
 - a. Garage locations should be indicated for all buildings. Garage opening widths should be indicated on both details. It is recommended that a minimum opening width of 18 ft or greater (20 ft preferred) be considered for all proposed garages.
 - b. The Typical Carriage home Layout detail on Sheet 31 does not match the proposed layout on the plans. The detail or layout should be updated to ensure consistency.
9. The applicant should indicate on the plans how mail delivery will be addressed and if mail kiosks will be installed.
10. The applicant should indicate the designated area(s) for school bus stops. Applicable pedestrian signage may be required.
11. The applicant has indicated a bituminous path connection to the intersection of Walker Road and Old Eagle School Road. This connection should be removed from the plan as this location would promote an unsafe pedestrian condition. If a connection is desired by the Township, a stop sign analysis of this intersection may be required.
12. The applicant has proposed 12 foot wide emergency accesses. Emergency Accesses are to be 18 feet wide per the Settlement Agreement.
13. The Concrete Sidewalk detail on Sheet 30 indicates that there will be a grass strip. This is true for Road A; however, the majority of the site contains sidewalk which abuts Belgian Block curb and the street. An additional detail is required.
14. The plans should be updated to indicate the limits of the areas along Walker Road and Old Eagle School which are to be repaved.
15. The Belgian Block detail on Sheet 30 indicates an 8 inch reveal; however, the plans indicate a 6 inch reveal. The plans should be updated to reflect consistency.
16. The Type M & Type C inlet details on Sheet 32 should be updated to require new construction inlet tops which contain a minimum inlet top thickness of 12 inches in lieu of the reconstruction inlet tops noted. See PennDOT RC-45M Sheet 2&3 of 20.
17. The applicant has proposed a porous asphalt detail on Sheet 31. The plans should be updated to clearly identify the limits of the porous asphalt locations.
18. The Applicant shall confirm the location of the vehicle accessible easements. It appears the Landscaping Plans and Land Development Plans are inconsistent.
19. The existing conditions plans should be provided at a 50 scale for clarity. Additionally, all utility poles which contain cobra head lighting should be identified on the plans; all signs should be indicated and labeled, and locations of curb should be identified.
20. The following minor items should be addressed:
 - a. Sheet 7 General Note 2 indicates that “Private Drives” are proposed. Private drives are not defined within the Tredyffrin Township ordinance. The proposed roadways are considered “Private Streets”. The plans should be updated accordingly.
 - b. “Zoning Summary – Residential District” Table Note 1 should be revised to indicate “24” single-family dwellings were indicated on the by-right plan in lieu of the

indicated “25” on Sheet 7. This note should further reference code section **§208-164.A**.

- c. The Site Plan Notes on Sheet 7 should identify that Open Space is not required per **§208-163.E** in order to provide clarity in regard to zoning compliance.
- d. The applicant should indicate the bedroom ratio, typical habitable area, and whether or not basements are proposed for both the Villa and Carriage homes on the plans in the form of a note or detail update.
- e. The applicant shall verify the minimum lot width within the “Zoning Summary – Residential District” table.

TECHNICAL / GENERAL – LANDSCAPING

21. The Landscaping Plan Compliance Chart Note 4 requests a waiver to allow shrubs be substituted for the required shade trees in locations where tree plantings will not align with the engineering restraints and or design intent; and that four shrubs may be planted instead of 1 shade tree in such circumstances. All waivers on the Landscaping Plans should be consistent with the waivers noted on Sheet 3 of the Land Development plans.
22. Calculations should be provided on the plans for clarity for “Street Frontage”, “Other Property Lines”, “Buffer Areas (LF & SF)”, and “Basin Perimeter” referenced within the Landscaping Compliance Table on Sheet 1. It appears the hatched / dimensioned areas on Sheet 1 do not match the referenced totals.
23. Landscaping Plan Sheet 1 indicates “Trees (to be removed) T.B.R.” and depicts a minimal total of trees to be removed. Based on the Settlement Agreement, all waivers on the Settlement Plan are approved. The Land Development Plans did not indicate that a waiver from **§181-36.D.2** was received to not identify existing individual trees to be disturbed and only be required to indicate the outer bounds of tree masses. The plans should be updated to reflect all trees to be removed or should be revised to indicate the location of future tree masses. As currently depicted, the plans do not accurately indicate all trees to be removed.
24. The applicant has referenced 17 existing shade trees and 11 existing evergreen trees within the compliance calculations. The referenced existing trees should be individually labeled on the plan for verification and meet the requirements of **§181-52.B** of the 2013 Township ordinance.
25. The Landscaping Plans Compliant Chart Note 3 indicates that 1 deciduous tree and 2 shrubs are required per 50 linear feet of basin perimeter. Per **§181-52.I.4.a&b**, deciduous or evergreen trees are required at a rate of one tree per 1,000 square feet of basin area; and shrubs, hedges or yews at the rate of one plant per 100 linear feet of basin perimeter is required. It appears the above referenced note is not accurate. Additional information in regard to basin plantings should be provided.
26. The applicant has provided three separate Plant Lists on Sheets “LP-2A”, “LP-3A”, and “LP-4A” which are all inconsistent. It appears each plant list applies to the individual areas of the site. These tables should be updated to note their individual area compliance or should be removed from the plans. An overall Landscaping Plan and Plan List shall be provided which further summarizes the total plantings proposed based on type (i.e., deciduous, shade, flowering, and shrubs) for the overall site.



27. Sheet “LP-3’s” legend should be updated to not reflect proposed trees as they are not indicated on this groundcover plan.
28. The Landscaping Plans note that there is a Settlement Agreement with the Valley Friends School and a 50 foot buffer surrounding the three sides of the cemetery and meditation garden was agreed upon. The applicant shall provide the referenced Settlement Agreement for review.
29. The applicant has proposed trees between and in close proximity to decks and homes. The applicant shall verify the proposed trees will not conflict with the proposed homes.
30. Trees are proposed between driveways, which may lead to future deterioration or the lifting of the proposed driveways. Trees are not recommended within these areas unless they are adequately maintained / pruned.
31. If a reduction in plantings would benefit the overall development, the applicant may offer a fee in lieu contribution to the Township’s Parks and Recreational Department that is equivalent to the requested tree / planting deficit.
32. A Landscaping Maintenance Plan should be provided which addresses, but is not limited to, the following concerns: tree pruning associated with trees located within close proximity to homes, stick and leaf removal, snow removal, lawn and yard maintenance, individual homeowners responsibilities, accountability for tree removal, hours of operation for landscaping maintenance, etc.

Please note the status of the following outside reviews and/or approvals:

Review	Agency	Status
Stormwater Management	Princeton Hydro	<i>Correspondence has not yet been received.</i>
Sanitary Sewer Design	CH2M	<i>Correspondence has not yet been received.</i>
Sanitary Sewer Service	DEP/Township	<i>DEP Exemption Letter received July 20, 2017.</i>
Sanitary Sewer Dedication	TTMA / CH2M	<i>Correspondence has not yet been received.</i>
Water Service	Aqua PA	<i>Correspondence has not yet been received.</i>
Gas Service	PECO	<i>Correspondence has not yet been received.</i>
Communication	Communication provider	<i>Correspondence has not yet been received.</i>
NPDES	DEP/CCCD	<i>Correspondence has not yet been received.</i>
PennDOT HOP	PennDOT	<i>Not required for Residential Development.</i>
Mike Pilotti	Fire Code	<i>Correspondence has not yet been received.</i>
Fire/Emergency Service	Berwyn Fire Co.	<i>Correspondence has not yet been received.</i>
County Planning	CCPC	<i>Received the Act 247 Referral App., Pending Response.</i>