

Jim Majewski
Township Planning and Zoning Administrator
Lower Makefield Township
1100 Edgewood Road
Yardley, Pa. 19067

January 21, 2021

Re: Pickett Preserve at Edgewood – Revised Preliminary/Final Land Development Plans

Dear Mr. Majewski:

The Lower Makefield Township Environmental Advisory Council (**EAC**) has completed its review of the revised Preliminary/Final Land Development Plans for the Pickett Preserve at Edgewood.

The base area site of 37 acres will be divided between commercial and residential. On the 23-acre commercial zone there will be 155,000 sq. ft. of retail located in seven new structures and the existing barn and house. One of these new structures will be a Wegmans Grocery Store (100,000 sq. ft.), two will be restaurants, one will be a drive-thru pharmacy, two will be general retail, and one will be a drive-thru bank. The 14-acre residential portion will have 200 apartments dispersed among nine separate buildings. There will also be a club house building.

Impervious surface will cover 63.6 % (23.54 acres) of the site, an increase of 0.14 acres from the original plan. A total of 1,213 parking spots are proposed. There are currently 6.6 acres of woodlands on the site of which 3.3 acres will be removed. The documents reviewed are below followed by our five comments.

- Preliminary/Final Land Development Plans, dated December 11, 2020,
- General Project Description and Stormwater Management Calculations, dated December 11, 2020,
- Environmental Impact Assessment Report, dated December 11, 2020
- Transportation Impact Study for the Prickett Preserve at Edgewood dated December 11, 2020

1. Waiver Request from the Tree Replacement Requirement (Ord. 178-85(H)(4))

The applicant continues to request a waiver from the Township's Tree Replacement Ordinance 178-85(H)(4). The revised plans indicated that 848 of the required replacement trees will not be planted on-site. The developer states in their waiver request planting the additional 848 trees on-site will not fit the overall design of the project. Therefore, we recommend **the waiver request be denied** and \$267,120 (\$315 per tree) be deposited into the Tree Bank.

Five reasons for denying the waiver request are listed below.

a. The developer was given a “bonus” provision that allows them to remove 50% of the site’s woodlands instead of 30%. As a result of this bonus provision that is only in the MU Overlay District, instead of clearing just 2 acres of woodlands, they will be cutting down 3.3 acres of woodlands. To help compensate for the environmental impact of removing an additional 1.3 acres of woodlands all required replacement trees should be planted.

b. One justification the developer gives in their responses for not complying with the tree replacement ordinance is the following: “the Applicant is contributing significant funds to construct off-site improvements to the benefit of the surrounding community”.

The off-site improvements this statement refers to is the \$6,500,000 in road improvements needed to mitigate the impact of increased traffic. We view these improvements principally a benefit to the developer. Without the improvements the traffic gridlock this development would cause (as shown in Traffic Impact Study) would make approval of this application by the Township extremely unlikely.

For the magnitude of this project, the payment of \$267,120 into the Township’s Tree Bank to help mitigate its environmental impact on the surrounding community is reasonable.

c. Sheets C-203 thru C-206 (Existing Conditions) of the plans show 353 existing trees greater than 10 inches in trunk diameter will be removed. In addition, the plans show several hundred trees with trunk diameters between 6 – 10 inches will also be removed. Though replacement trees are not required for these trees, their removal will add to the negative environmental impact of this project and the need for all replacement trees.

d. Another justification from the applicant for requesting a waiver was the following:

“it is infeasible to provide the required replacement trees on-site without causing a hinderance to buildings, infrastructure or the health of the trees themselves. Also, the overall design intent of the open space areas proposed is to provide a mix of recreation areas on-site that the residents, tenants and general public visiting the site can enjoy.”

The EAC notes that plans show there are locations to plant hundreds of additional replacement trees on-site with no hinderance to buildings, infrastructure, or the health of the trees. The second reason given in this justification, more trees don’t fit into the overall design of the intent of the project, is a more valid reason for not planting additional replacement trees onsite and instead depositing the money in the Tree Bank.

e. Not only has the EAC recommended this waiver not be granted, but the same recommendation was made by the Township's Engineer (comment #30 in RVE Nov. 6, 2020 letter) and the Bucks County Planning Commission (comment #2 in Oct. 16, 2020 letter).

2. Reduction in the Proposed Number of Parking Spots

The EAC's previous comment letter asked the applicant to further review their parking needs by conducting a shared parking analysis and considering the use of reserve parking. The EAC comments were similar to those made by the Township's Engineer (comments #8 and #9 in RVE's Nov. 6, 2020 letter).

The applicant declined to do either a shared parking analysis or designate reserve parking. In their response is below:

"After further consideration, the applicant has decided to forgo the preparation of a parking analysis. The proposed development meets the Township's minimum parking requirements and we believe the additional parking spaces where provided are warranted for the respective uses."

No factual justification or data were given for this response. Therefore, we will ask again that the proposed 1,213 parking spots be reevaluated to verify they are actually needed.

Reducing the number of parking spots will bring positive environmental benefits (reduction of stormwater runoff, improvement of stormwater water quality, ground water recharge, less pavement urban heat island). The land saved by not building the driveways aisles and parking spots could instead be used as common open space. The developer will also benefit because each parking spot can cost thousands of dollars to build.

2.A Conduct a Shared Parking Analysis

The overall required number of spaces may be reduced by the Board of Supervisors provided a shared parking analysis is submitted by the applicant [200-50.11.C (Parking standards)]. If the applicant continues to refuse submitting such an analysis, we ask the Township conduct such an analysis.

A shared parking analysis would be most appropriate for the retail portion of this development for the following reasons.

- a. Many of the parking lots surrounding the retail buildings are in close proximity to other retail buildings. For example, customers who are going to Retail Buildings 2, 4, or 5 could easily use parking spots near the Wegmans, and vice versa.
- b. The different peak period use times of the retail planned (super market, pharmacy, restaurants, bank, etc.) allows for shared parking. Data on the time of day distribution of parking demand is available in the *Institute of*

Traffic Engineers Parking Generation Manual, 5th Edition. If there is potential for the peak period of parking demand for one land use to coincide with a lower demand period for another land use, ultimate peak parking demand for the parking facility will not be simply the sum of the two peaks.

For example, at the Planning Commission's 11/9/20 meeting it was mentioned **First Watch Café** is a possible tenant of Retail Buildings 2 or 4. First Watch Café's are a breakfast/lunch restaurant that close by 2:30 pm. Therefore, they would require no parking spaces after 2:30 pm which would allow customers of other retail to use these spots.

2.B Consider Reserve Parking

200-50.11.D (Parking standards) of the mixed-use ordinance allows the applicant to place up to fifteen (15%) percent of the required parking may in reserve. This reserve parking could later be built if, after Wegmans, the retail stores, and apartments are open, there's an issue with adequate parking.

Below are reasons why all the proposed 855 retail parking spots proposed may not be necessary.

- a. Approximately 20 percent of the total vehicle trips generated during the p.m. peak and Saturday peak (~255 trips) are classified as "**Internal**" (Table A of the Transportation Impact Study for the Prickett Preserve). Internal trips, sometimes referred to as "Internal trip capture", refers to someone who visits Pickett Preserve and visits not just one, but two retail businesses such as Wegmans and one of the restaurants. Given the proximity of the retail buildings to each other, many people will walk, not drive, to the second retail building. These people will not need a second parking spot as assumed by the ordinance's parking space requirements. The proposed number of 1,213 parking spots does not account for the **several hundred parking spots that may not be needed due to internal capture.**
- b. With the rise of on-line shopping, the number of customers visiting the brick and mortar stores is diminished as compared to the past when the parking space requirements were developed.
- c. Among the proposed retail buildings will be a drive-thru bank and pharmacy. Customers utilizing the drive-thru will not require on-site parking.
- d. Wegmans may not need all 500 Parking Spots the Mixed-Use ordinance allows for a 100,000 ft² super market (5 parking spots per 1,000 ft²). The findings of the study below suggest fewer parking spots will be needed.

The Planning Division of Monroe County in Rochester NY released a study entitled "Statistical Analyses of Parking by Land Use" (Aug. 2007). The purpose of the study was to obtain accurate parking data for analysis to determine parking ratios for various land uses. One of the land uses evaluated were supermarkets. 18 different supermarkets in the area around Rochester NY of varying sizes were surveyed. Rochester is home of Wegmans Corporation and there are many of their stores in the area that were no doubt included in the survey.

The studies conclusion regarding parking at supermarkets:

"The increasing size of supermarkets does not reflect a commensurate increase in peak parking demand. The observations suggest that the rate of peak parking demand tends to flatten out with increasing gross floor area. Thus, a parking rate of 1 space per 200 ft² (note; equivalent to the LMT ordinance) may be reasonable for supermarkets in the 20,000 ft² range, but excessive for supermarkets with 100,000 ft²."

The study goes on to recommend the following number of parking spots for supermarkets greater than 90,000 ft²; 325 spaces plus 1 space per 500 ft over 90,000 ft. It goes on to say this rate should still allow sufficient parking spaces for holiday shopping loads.

- If this study's criterion is used, the number of parking spots Wegmans needs is **345 parking spots**, not the 500 required in the ordinance.
- Low Impact Development would require that the number of parking spots built should not be based on the one day during the year with highest demand. As readily observed in most of this area's existing large parking lots, many of the parking spots will remain unused for the other 364 days of the year.

If the reserve parking spots are never built there will be the positive environmental benefits and cost benefits discussed earlier.

3. Pervious Pavement Parking Spots

It is encouraging that some pervious pavement has been added to the project. There are now 25 parking spots at the Wegmans and 32 parking spots in the residential area which will be pervious.

However, the proposed 57 parking spots that cover 0.25 acres of surface area represent only 4.6 percent of the total parking spots proposed (1,213) and 1 percent of the total impervious surface proposed (23.5 acres).

To take advantage of the numerous environmental benefits of pervious pavement the developer should make not a token, but a real commitment to pervious pavement and increase the number of pervious parking spots.

4. Green Building Technologies and Sustainable Building Construction

The response to this comment made earlier was that it is too early in the design process to consider whether green building techniques can be incorporated in the development. Once that point is reached in the process, we ask that green building technologies or sustainable building practices (ex. LEED certification) be seriously considered. This will not only lessen the environmental impact of the project but also save the owner money on the buildings' maintenance and utilities.

TRAFFIC ISSUES

Traffic congestion increases vehicle emissions, degrades ambient air quality and increases noise levels in the area. It also results in greater fuel consumption and energy use by the vehicles. It is therefore of environmental concern.

5. Recalculation of the Development's Trip Generation with the New Data Available

In EAC's previous comment letter we asked for more accurate trip generation estimates using the latest tenant information available for the retail portion of Pickett Preserve. The applicant's response stated that there will be 27 more trips during the p.m. peak and 121 new trips during the Saturday peak than shown in the July 21, 2020 Transportation Impact Study.

In order to get a full understanding of this response we ask for the specific types of retail that were assumed when calculating the additional p.m. peak and Saturday peak vehicle trips.

6. Congestion at the Yardley-Langhorne/Stony Hill Intersection

In its response to the EAC's earlier comment on this issue the applicant references the planned signal optimization of the traffic signal at a different intersection (the Newtown Bypass/Stony Hill Road intersection).

As we noted in the earlier comment, the analysis for the Yardley-Langhorne/Stony Hill Intersection in the Traffic Impact Study had a current overall level-of-service (LOS) of F during the Saturday peak. The Traffic Impact Study predicts the Saturday peak LOS at the intersection improving in 2023 and 2028 from a LOS of F to D. Table B of Appendix N lists the overall delay in waiting at the intersection as follows:

2019 existing – 126 seconds,
2023 build scenario – 35 seconds,
2028 build scenario – 39 seconds.

These improvements in LOS and intersection delay occur even though 421 more vehicles per hour are traveling thru the intersection during the Saturday peak in 2023, and 462 more vehicles in 2028.

Table 11 in the Traffic Impact Study states no Penn Dot Mitigation such as traffic signal timing adjustments are required.

Will the signal optimization plan permit described in Appendix N definitely going to happen? Who will be responsible for having this done and when is it scheduled to occur? We could find no mention of this in the correspondence with PennDot in Appendix A of the Traffic Impact Study.

7. Paying for the Traffic Improvements

Page 16 of the Traffic Study discusses funding of the comprehensive traffic improvement solutions needed in order to address the future traffic conditions at the Newtown- Yardley Road (S.R. 0332) intersections with Stony Hill Road (S.R. 2069) and the I-295 Westbound Ramps. The applicant offers to partner with the Township to implement the needed traffic improvements. They estimate the cost for these off-site traffic improvements to improve traffic operations is approximately \$6,000,000 to \$6,500,000.

The applicant pledges a transportation contribution of \$2,500,000 (which exceeds the required 30 percent MTF match) towards a Township Multimodal Transportation Fund (MTF) grant to secure up to an additional \$4,000,000 towards the full transportation improvement solution.

If some or all of the funding for these improvements are not obtained from the MTF grants, will the applicant commit to paying all the approximately \$6,000,000 to \$6,500,000 costs for the traffic improvements? If the applicant is committed to paying for the full scope of the traffic improvements regardless of obtaining the MTF grants the document should clearly state it.

STORMWATER MANAGEMENT PLAN

8. Exceedance of Recommended Infiltration Basin's Loading Ratios

Pennsylvania Stormwater Best Management Practices Manual Appendix C gives guidance on infiltration systems design. It states one of the more common reasons for infiltration system failure is the design of a system that attempts to infiltrate a substantial volume of water in too small of area. To address this problem it gives guidance on loading ratio:

“the following Loading Ratio guidelines are recommended:

- *Maximum Impervious Loading Ratio of 5:1 relating impervious drainage area to infiltration area.*
- *A Maximum Total Loading Ratio of 8:1 relating total drainage area to infiltration area. “*

The large infiltration basin at southwest corner of the site has a bottom surface area of 47,380 ft². When accounting for both onsite and off-site drainage areas to this above-ground basin (page 9 of the Stormwater Management Report), the basin has the following ratios:

Impervious Loading Ratio = 14.8 (maximum recommended ratio of 5),
Total Loading Ratio = 27.3 (maximum recommended ratio of 8)

These ratios are far above the recommended maximum of values and therefore reexamination of the stormwater management system would seem warranted.

9. Stormwater Volume Reduction Credit due to Evapotranspiration

Page 19 of the Stormwater Management Report shows that in order to meet the Township’s volume control requirement, a 19,828 ft of stormwater (148,000 gallons) volume reduction credit for evapotranspiration from the above-ground infiltration basin.

How was this value calculated? There is no description of how to take a volume reduction credit due to evapotranspiration in the Pennsylvania Stormwater Best Management Practices Manual.

The amount of evapotranspiration from the basin will be a function of meteorology and the season of the year. What is the justification for assuming the same amount of evapotranspiration throughout the year, especially the winter?

The stormwater that is evapotranspired by plants is initially infiltrated into the basin soil and then absorbed by the plant roots. Since a volume reduction credit is already taken for stormwater infiltrating into the basin soil, taking an additional volume reduction credit for evapotranspiration of the same water would be double-counting.

Thank you for your attention to this matter. We ask that these comments be passed on to the applicant and request the applicant give complete responses.

Sincerely,
LMT EAC

C: Supervisors Blundi (EAC liaison) and Grenier (Planning Comm. liaison)
Joseph M. Fiocco, SAFE Highway Engineering, LLC