

**TOWNSHIP
OF
LOWER MERION**
MONTGOMERY COUNTY



TOWNSHIP ENGINEER

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LOWM 248.54

March 23, 2018

Christopher Leswing, Director of Building and Planning
Township of Lower Merion
75 East Lancaster Avenue
Ardmore, PA 19003

**Re: Bala Cynwyd Shopping Center—Residential Development
121 City Avenue
Preliminary Plan Review**

Dear Mr. Leswing:

In accordance with your request for the above referenced submission, we have reviewed a set of twenty-three (23) plans dated 11-03-17, latest revision dated 03-02-18, and stormwater management calculations dated 11-03-17, latest revision dated 03-19-18, prepared by Bohler Engineering, Inc. We have also reviewed a traffic impact study dated 11-02-17, prepared by McMahon Associates, Inc. We offer the following comments for your consideration:

A. MAJOR ENGINEERING ISSUES

- ❖ **Traffic/Maneuverability**—The truck turning maneuverability diagrams indicate conflict with opposing traffic on the drive aisles. The number and timing of deliveries of larger trucks must be limited in order to reduce potential impact to the efficient circulation of traffic. Conditions of Approval are recommended to be added limiting the activity of large truck access. Also, the resulting decrease in the Level of Service projected delay at the St Asaphs drive exit requires the addition of improved traffic control at that location. The current mitigation measure indicated is to restrict by signage the left turns out during afternoon peak traffic hours. The traffic study must be revised to account for the redistribution of traffic to other drive egress locations.

With the resolution of the above major engineering issue and the remaining comments in this letter incorporated, we recommend approval of the Preliminary Plan.

B. ORDINANCE REQUIREMENTS

1. Section 101-6A(1)—All woody vegetation to be retained within twenty-five (25') feet of a building site or disturbed area shall be protected from equipment damage by fencing placed at the driplines. Since the fence shown has not been shown at all driplines, the tree protection fence location must be approved by the Township Arborist.
2. Section 101-6A(5)—No impervious cover shall be permitted within the driplines of trees to remain without approval from the Township Arborist. The proposed location of the multi-purpose path impacts several trees which are shown to remain. The Township Arborist must approve the location and extent of the impervious surface if any impacted trees are scheduled to remain.
3. Section 101-6A(6)—Grade changes around the driplines of trees to be retained shall be minimized. Impacted trees shall be clearly identified on the plans. Treatment of the impacted trees prior to construction to protect the root system shall be performed if/as directed by the Township Arborist. The Township Arborist must also approve the procedure. The exact location of the multi-purpose path shall be coordinated with the Township Arborist.
4. Section 121-4E(4)—The description of how the stormwater facilities will be operated and maintained shall be presented in recordable form as a covenant running with the land and must be approved by the Township Solicitor prior to recording the Final Plan.
5. Section 121-4F(3)—Profiles must be provided for all sections of pipe with diameters of fifteen (15") inches or greater. This must be submitted with the Final Plans.
6. Section 121-10—No grading changes shall be shown within three (3') feet of the property line in order to ensure transition to the grading on the adjoining property unless approval from the owners have been obtained. As construction for the six (6') foot walkway and fence is proposed on the adjacent property, written permission must be obtained and easements indicated with metes and bounds.
7. Section 121-12—An NPDES Permit must be obtained from the Montgomery County Soil Conservation District prior to issuance of any permit.
8. Section 121-15—The runoff crossing to the adjacent properties during the construction phase of the project shall be managed so that the water quality/quantity impact is minimized to the adjacent properties. Diversion berms, stones construction staging areas, and inlets/piping shall be provided as required or as directed by the township so as to ensure acceptable conditions during the construction phase. This shall be made a condition of any permit issuance.

9. Section 135-41.1(A)—Adequate water supply must be documented for the development. A letter from Aqua Pennsylvania must be submitted certifying adequate supply for the additional demand. The current letter does not confirm adequacy of supply.
10. Section 135-17B(13)—The existing storm sewers, inlets and any other manhole or other structure shall be shown within 200' of construction activity. Invert, rim, and grate elevations shall be indicated. The size and material of all storm sewers shall be provided.
11. Section 135-19B(8)—A traffic impact fee based on the expected average weekday PM peak hour trip generation of sixty-six (66) trips shall be paid prior to issuance of any permit.
12. Section 135-19B(8)—The delivery truck turning plan shown conflicts with opposing vehicles in the drive aisles. The number of trucks accessing the site and the timing of the deliveries must be fully evaluated in order to ensure efficient traffic circulation through the development. A Condition of Approval is recommended limiting the truck delivery to the times and volumes used in the evaluation. At a minimum, the larger trucks should be prohibited during peak travel times.
13. Section 135-19B(8)—A stop sign (symbol "A" for a R1-1 sign) shall be specified for the westbound traffic aisle approach to the St. Asaphs driveway intersection rather than the time restricted right turn only sign ("C") now shown.
14. Section 135-40—A Planning Module must be approved by the City of Philadelphia and the DEP prior to recording the Final Plan.

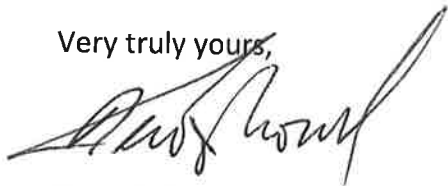
C. ENGINEERING COMMENTS

1. The Director of Building and Planning must approve the Lighting Plan.
2. A Planting Plan must be approved by the Planning Department and the Township Arborist.
3. Metes and bounds for the proposed sidewalk easement shall be developed and listed on the plan. The width of the easement shall be dimensioned on the plans.
4. Geotextile material shall be indicated to surround the entire seepage bed including the bottom. The detail and notes on Page No. 19 shall be revised to reflect this.
5. The stair tread, riser and railings final design must comply with the applicable building code. This shall be a condition of permit issuance.
6. The architectural plans must be coordinated with and must comply with the grading proposed with this application.

7. Separate permits and approvals must be obtained from the Public Works Department for the sanitary lateral construction.
8. A detail of the retaining wall shall be provided. Calculations must be provided for wall heights exceeding four (4') feet. Vehicle surcharge loading shall be included in the analysis if within the influence line of a vehicle travel area.
9. The reference to a "dewatering device" indicated in the basin outlet structure details shall be clarified. Adequate detail as to design and operation/function of this device must be provided. The basins must be able to recharge the required volume as dead storage.
10. An elevation point in the stage-storage input must be provided for the weir invert in order to remove the error in the analysis caused by the program using an average outflow value.
11. A copy of the revised plan shall be submitted with any changes highlighted. A letter shall also be provided with the revised plan indicating how each requested revision has been addressed in the re-submission.

Please advise if we may be of further assistance in this matter.

Very truly yours,



Kevin J. Bowers, P.E.

PENNONI ASSOCIATES

Township Engineer

Cc: Robert E. Duncan, Assistant Township Manager
Bohler Engineering, Inc.
McMahon Associates, Inc.