



TOWNSHIP OF
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DELAWARE COUNTY

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June 1, 2011

CERTIFIED MAIL
Return Receipt Requested

Quarry Center, LP
940 Haverford Road, Suite 102
Bryn Mawr, PA 19010

RE: Preliminary Land Development Plan
Quarry Center, LP Proposed Commercial Development
Township Line Road, Havertown, PA
Delaware County Tax Map Number 22-39-030:000
Plans prepared by Bohler Engineering, Inc., Last dated May 13, 2011.
Planning Commission Recommendations

Ladies and Gentlemen:

At the Planning Commission meeting of Thursday, May 26, 2011, a motion was passed recommending that the above-referenced Preliminary Land Development Plan be approved subject to the following conditions and code provisions cited from the General Laws of the Township of Haverford:

1. All comments contained in the Township Engineer's review letter dated May 24, 2011 shall be addressed to the satisfaction of the Township Engineer. Those items include:
 - a. It is unclear how the home improvement store storage area(s) will be adequately enclosed in accordance with §182-406.D(2)(a). The Architectural/Building Permit Plans will confirm that this requirement is met.
 - b. The applicant should address the open space requirements of §182-716.A(1). §182-716.A(2), provides that not more than 50% of the required open space shall be comprised of floodplain area, steep slope area, areas with high water tables, marsh areas, areas with shallow bedrock or areas of erodible or poorly drained soils. The Open Space Exhibit should provide a calculation verifying the same.
 - c. It does not appear any significant foundation plantings have been proposed around the individual stores and buildings per the requirements of §182-718.D(3). This should be further reviewed by the Shade Tree Commission.
 - d. An approved Pennsylvania Department of Environmental Protection Sewage Facilities Planning Module or exemption is required. (§160-4.E.5(d))

- e. The applicant is reminded that an Erosion and Sediment Control Permit and an NPDES Permit from the Delaware County Soil Conservation District are required. (§160-4.E.5(e)[2])
- f. The plan proposes slopes of two (2) horizontal to one (1) vertical in various areas. Such slopes require a written statement from a licensed civil engineer and approval from the Township in accordance with §160-5.B.(2)(5)(i)[3][a].
- g. Shade trees shall be installed on both sides of all streets subject to the approval of the Shade Tree Commission at a minimum spacing along each side of the street of 30 feet on center. (§160-5.B(6))
- h. A fifteen-foot wide access easement around all stormwater management facilities that would provide ingress/egress from a public right-of-way. (§78-25.B(19)) It is the applicant's intention that the stormwater management facilities to serve the proposed development will be privately owned and maintained. This issue should be finalized in conjunction with the final Operation and Maintenance Agreement.
- i. It would be prudent to provide profiles be provided for all storm and sanitary sewer runs.
 - Capacity appears to be insufficient for the following pipe runs: IN10 to MH03A, IN06 to IN10, MH05 to MH06, IN44 through MH12 and IN46 through MH14.
 - The input rainfall depths should be provided for the pipe analysis.
- j. If diffused drainage discharge is proposed to be concentrated and discharged onto adjacent property, the applicant must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge or otherwise prove that no erosion, sedimentation, flooding, or other impacts will result from the concentrated discharge. (§78-30.F) Regardless of rate reduction, it is recommended the downstream culvert (crossing Township Line Road) be analyzed to verify no existing downstream drainage/capacity issues exist at this point of interest.
- k. Regarding the infiltration facilities, the following should be addressed:
 - Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase to maintain maximum infiltration capacity. (§78-32.E(1)).
 - The infiltration facility shall be capable of completely infiltrating the retention (infiltration) volume (Rev) below grade within four days (96 hours). (§78-34.A(1)(c)) Dewatering calculations should be provided for both facilities. A detailed soils evaluation of the project site shall be required to determine the suitability of infiltration facilities, including soil permeability, depth to bedrock, and sub-grade stability. (§78-34.B) A detailed soils report should be provided to verify the same and limiting zones.
- l. Vehicle fueling stations are considered a stormwater hotspot per §78-84.C(1)(a). Per §78-84.C(1), untreated stormwater runoff from hotspots shall not be allowed to recharge into groundwater where it may contaminate water supplies.

- m. Regarding the stormwater management plan, the following should be clarified:
- The post-development drainage area of the southwestern sub-area.
 - The applicant should review the conveyance proposed in the area of the western parking lot and underground system. It appears additional inlets may be warranted to fully capture the anticipated drainage area. It remains unclear which rainfall depth (inches/hour) was utilized for the inlet capacity analysis; per Figure F-4, 8.4 inches/hour should be utilized, while the inlet flows indicated appear significantly low based on this value.
- n. The applicant is reminded that a Stormwater Control and BMP Operations and Maintenance Agreement should be signed, notarized and submitted to the Township. (§78-49)
- o. The applicant is reminded that a contribution to the Municipal Stormwater Control and BMP Operation and Maintenance Fund is required to help defray costs of periodic inspections and maintenance. (§78-51) This will also include the proposed stormwater management system within the right-of-way of Township Line Road per new PennDOT regulations regarding ownership of these facilities.
- p. The traffic impact study should include level of service and queue tables that compare existing and proposed delay and queue increases for all study area intersection movements in order to identify specific areas of concern. The queue table should include the available storage length for each auxiliary lane and the distance to the adjacent intersections for closely spaced intersections. The requested tables have been provided. Based on these tables, we note the following:
- At the intersection of Township Line Road and Darby Road/Lansdowne Avenue, several movements incur significant delay increases, without the proposed connector road. These include the northbound Township Line Road left turn, the southbound Township Line Road thru/right, the northbound Lansdowne Avenue approach, and the southbound Darby Road approach.
 - With the addition of the connector road, the delay increases are not as substantial; however, the northbound Township Line Road thru/right and the northbound approach of Lansdowne Avenue still incur delay increases.
 - With the addition of the connector road and proposed timing modifications at the intersection of Township Line Road and West Chester Pike, the southbound through movement for Township Line Road is projected to incur delay and queue increases.

- q. The queue analysis portion of the traffic impact study indicates that under proposed conditions, queues will not be accommodated in existing storage lanes and may spill back through closely spaced intersections, specifically at Township Line Road and Darby Road, and Township Line Road and West Chester Pike. The queue analysis should include a comparison between proposed conditions with and without the connector road to determine the degree that the connection to West Chester Pike will alleviate this condition. The requested analysis has been provided. The analysis indicates that with the addition of the connector road, the number of lanes exiting the site at the main access would be reduced, and queuing would be reduced at the Township Line Road and Darby Road/Lansdowne Avenue signal.
- r. Without the connection to West Chester Pike, the traffic study indicates that site traffic will utilize Bryan Street, Steel Road, and Gilmore Road. The anticipated volume increase to these residential Township roads is 27 vehicles in the morning peak hour, 91 vehicles in the afternoon peak hour, and 127 vehicles during the Saturday peak hour. Consideration should be given to providing traffic calming devices should the connector road not be provided as part of this development. The applicant has indicated that this issue will be considered and discussed further with the Township should the connector road not be constructed.
- s. The traffic study indicates that without the connection to West Chester Pike, the Bryan Street approach to Township Line Road will continue to operate with a deficient level of service with increased delay, and that vehicles may utilize Greenview Lane instead, since it is signalized at Township Line Road. The study should be revised to include the signalized intersection of Township Line Road and Greenview Lane to determine if timing improvements would be necessary to accommodate the development traffic. The applicant has included this intersection in the study, and has indicated that any needed signal timing improvements will be provided. It is recommended that traffic calming devices be considered for the route to Greenview from Steel and Gilmore, and that the signal at Township Line and Greenview be monitored for timing modifications should the connector road not be provided as part of this development.
- t. The applicant proposes to eliminate the southbound left turn movement from Darby Road onto Township Line Road, and the northbound left turn from Township Line Road onto West Chester Pike. These modifications should be further reviewed to determine if the movement eliminations would impact access to/from facilities along Township Line Road or West Chester Pike. The applicant has indicated that further discussion with the Township should take place to determine if the benefits outweigh the impacts. It is recommended that PennDOT and Upper Darby Township be included in these discussions. Also, the full impact of the development traffic cannot be identified prior to deciding on these restrictions as the study assumes the removal of these movements as part of the analyses.

- u. As indicated in the study, traffic signal timings and coordination settings for the closely spaced intersections of Township Line Road, West Chester Pike, and Darby Road have been optimized by PennDOT and additional timing modifications may not be feasible. However, revised timings are proposed as mitigation as part of this development. This should be further discussed with PennDOT to determine if timing modifications at these intersections is a feasible improvement. The applicant has indicated that this will be further discussed and addressed during the PennDOT process. It is recommended that this issue be resolved in the near future, as the full impact of the development traffic cannot be identified prior to identifying whether or not revised timings is a viable mitigation technique. Note - the revised traffic study includes further modifications to the signal timings, including a change in cycle length for these intersections.
- v. Ownership and responsibility for the proposed signal should be addressed with Upper Darby Township.
- w. It appears the alignment of the road in the rear of the home improvement store may need to be adjusted should the connection to West Chester Pike be accomplished. We recommend that applicant design the road for the future connection so this connection could potentially be completed at a later time with minimal modifications. The applicant has indicated that the alignment can be refined as the possibility of a connector road progresses.
- x. Retaining walls details remain to be provided.
- y. The integrity of the existing 48-inch pipe at the southeast corner of the site should be verified.
- z. Two (2) bus shelter locations have been added. The applicant should indicate whether these locations have been approved by SEPTA.
- aa. The basin cross-sections/plan views should additionally indicate the pipe lengths and diameters/height and the basin bottom elevations. The facility widths indicated on the utility plan remain to be inconsistent with the detail; notably, for Basin #1, the plan indicates a width of 152.3 feet, while the detail appears to have a calculated width of 140.76 feet. Additionally, the width of Basin #2, per the detail, appears to be 179.08 feet, while the plan indicates 184.8 feet. In addition, the exact length for both basins is unclear.
- bb. The applicant should confirm that the stone specified for the underground basins provide adequate structural support for the size of pipe proposed.
- cc. It is requested that Worksheet 4 of the NPDES submission be provided to verify volume differences using the SCS Method. This issue will remain outstanding pending submission to the PaDEP and/or DCCD.
- dd. The applicant should address the condition of the existing retaining wall adjacent to Naylor's Run. It appears that portions of this wall are deteriorated and may require maintenance and/or removal. The Applicant has indicated this work is in the process of being completed.
- ee. It is noted that both of the proposed bus shelters are outside of the PennDOT right-of-way. Also, it appears one or both of the shelters will require retaining walls around them to accommodate the slope.

- ff. The proposed grading at the west property line adjacent to the southernmost landscape berm does not appear to provide for positive longitudinal drainage.
 - gg. In accordance with a meeting held on April 4, 2011 to discuss traffic issues associated with this development, the applicant's traffic engineer was to review right-of-way constraints and develop concept plans for improvements at the intersection of Township Line Road and Darby Road / Lansdowne Avenue, including extending the northbound Township Line left turn lane, and adding a northbound Township Line right turn lane. An update on this effort should be provided.
2. The Final Plan submission to the Township shall include fully engineered and detailed plans for the following items (Section 160-4.F.2(a)):
 - a. All proposed PennDOT highway improvements and modifications, including highway occupancy permit plans and traffic signal plans.
 - b. Stormwater management facilities, including complete supporting design calculations and reports.
 - c. Erosion and sedimentation control facilities, including complete supporting design calculations and reports.
 - d. Site lighting and landscaping plans.
 3. The final landscaping plans shall be submitted to the Township Shade Tree Commission for review. The recommendations of the Shade Tree Commission shall be submitted to the Township Planning Commission for its consideration no later than seven (7) calendar days prior to the first Planning Commission meeting when the final plans will be considered/discussed (Section 182-718.B.1(c)).
 4. It is recommended that appropriate traffic control signage, lane markings and other physical barriers be installed at the main exit drive from the site onto Township Line Road, the purpose of which would be to prevent traffic which is leaving the site from traveling straight through onto Wilson Drive, subject to PennDOT approval.
 5. An after-development traffic study shall be conducted by the Haverford Township Engineer, funded by the Applicants, to confirm the effectiveness of the as-constructed highway improvements and modifications. The Applicants agree to construct and/or install any additional improvements identified in the after-development traffic study at their expense, subject to the receipt of PennDOT approval. Work on any required post-development highway improvements shall begin within 6-months of the completion of the aforementioned traffic study (Section 160-4.E(5)(i)[5]).
 6. As the Applicants have acknowledged the negative impacts which will be created by cut-through traffic, appropriate traffic calming devices, as determined by the Township Engineer and Township Staff and funded by the Applicants, shall be installed along those Haverford Township streets which will be impacted by the additional traffic associated with the proposed development.
 7. A buffer planting strip, to include a mix of deciduous and evergreen trees and shrubs (as defined in section 182-106.B), shall be installed at the top of the bank between Township Line Road and the proposed vehicle fueling station. The planted buffer shall comply with the requirements of Section 182-718.B. The total length of the planted visual barrier shall be at least 140-feet long and shall consist of a mix of plant material that transitions into the landscaping proposed for the remainder of the site frontage.

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8. A sidewalk shall be provided along the eastern side of the main access driveway (Section 160-5.B(4)(c)).
9. It is recommended that at least one parking space from each row of parking within the proposed development be converted to a landscaped island. In addition, the striped areas adjacent to the HC spaces at the ends of four (4) parking bays should be converted to curbed islands.
10. The Applicants shall continue to use their best efforts to obtain the required easements from the owner of the adjacent Kohl's property in order to construct the proposed 'Connector Road.'
11. It is recommended that truck deliveries to stores within the development only be permitted between the hours of 7:00 A.M. and 11:00 P.M., Monday through Saturday. Delivery trucks arriving at the site during non-delivery hours should be turned away. Delivery trucks should not be permitted to idle their motors for more than 5 minutes while waiting to unload, and should not be permitted to idle during the unloading process. Signage regarding delivery and idling of vehicles should be posted at each loading area in a conspicuous manner.

The Board of Commissioners will consider this Preliminary Land Development Plan at their public meeting of Monday, June 13, 2011, at 7:30 PM, in the Commissioners' Meeting Room, in the Quatrani Building at the Township Complex, 2325 Darby Road, Havertown, PA.

Please feel free to contact this office if you have any questions regarding this notice.

Very truly yours,



Lori Hanlon-Widdop
Asst. Township Manager/Director, Community Development

Cc: Commissioners - e
Larry Gentile, Township Manager -e
James J. Byrne, Jr. - Township Solicitor - e
David Pennoni, P.E. - Township Engineer -e
George Broseman - Atty for Quarry Center, LP
John Hornick, P.E. -e
HT Planning Commission - e
HT Shade Tree Commission - e
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