



April 11, 2016

Mr. Jason M. Bobst
West Norriton Township
1630 W. Marshall Street
Jeffersonville, PA 19403

Re: **MARKLEY FARM PROPERTY**
2325 Chestnut Avenue
West Norriton Township, Montgomery County, Pa.
Job No. 96030

Dear Mr. Bobst:

In accordance with your request, we have reviewed the plans submitted for Preliminary Subdivision and Land Development approval for the subject project. The submission consisted of a plan set containing 36 sheets being dated November 6, 2015 and last revised February 16, 2016. The plan set was missing sheets 27 and 28 of 36. The plans were prepared by Woodrow & Associates, Municipal/Civil Consulting Engineers. These plans illustrate the proposed development of the Markley Farm site as a seventy-nine (79) unit single-family detached Cluster Development subdivision.

The subject property is situated on a single lot having an area of 55.5618 acres. This lot is identified as Block 1 Unit 7, Tax Parcel No. 63-00-01108-008 by the Montgomery County Board of Assessment. The owner of record for the property is listed as Doris Y. & Ronald W. Markley Revocable Trust, 2325 Chestnut Avenue, Norristown, Pa 19403-3036. The applicant is Mikelen, LLC, c/o Leonard DelGrippe, 2965 West Germantown Pike, Norristown, PA 19403. The site is situated in the "R-2" Residence District of the township.

No stormwater design nor stormwater computations were submitted for review. We did not review for compliance to Chapter 26, Part 1 "Stormwater Management" of the West Norriton Township Code.

We offer the following comments concerning this submission.

ZONING ORDINANCE

1. The cluster subdivision option is permitted by Conditional Use only. We personally do not have a record of this approval as noted on Sheet 2. Please provide to us a copy of the resolution granting conditional use approval along with the conditions of this approval. ZO §27-504.A.
Satisfied-copy received.

2. All five (5) categories of features outlined in ZO §27-505.C must be delineated on the plans. None of these are shown.
Mature trees of a caliper greater than six inches must be shown as well as the areas of slopes steeper than 15%. The floodplain shown on the plans appears to be incorrect, not reflecting the latest FEMA Map (Mar. 02, 2016).
3. The method of ownership, along with the maintenance and operation responsibility, of the common open space and trail must be noted on the plan. ZO §27-505.E. & ZO §27-505.G.
Satisfied; however, the solicitor should review and approve the language of notes 21 and 22 on Sheet 2.
4. A note must be added to the plans restricting the driveway access of multiple frontage lots to the street of lower classification. ZO §27-505.F (2)(k)(ii).
Satisfied.
5. The reverse frontage lots must provide a rear yard in addition to the perimeter buffer. ZO §27-505.F(2)(k)(iii).
Satisfied.
6. We recommend that the Potential Tract Yield Concept Plan Layout be included within the subdivision plan set. Note that this Yield Plan is different than that presented at the Conditional Use Hearing. ZO §27-505.F(2)(l).
Issue remains. The Potential Tract Yield Concept Plan Layout should be part of the subdivision plan set.
7. The pedestrian access trail must be relocated out of the perimeter buffer along the Hines lot. ZO §27-505.F(2)(m).
Issue remains.
8. A note must be added to the record plan requiring the deed restrictions outlined in ZO §27-505.G(2) and as found satisfactory to the township solicitor.
Satisfied; however, the solicitor should review and approve the language of notes 21 and 22 on Sheet 2.
9. Are the new street to be offered for dedication to the township or are they to be private? ZO §27-505.I.
Satisfied. The new streets are being offered for dedication.
10. The restrictions to the use of the land within the clear sight triangle, along with the triangle size, must be noted on the plan.. ZO §27-1407.
Satisfied.
11. Indicate on the record plan compliance with the two off street parking stall provision. ZO §27-1410.A.

Satisfied.

12. The floodplain must be shown on the plans. ZO §27-2200.
The floodplain shown on the plans appears to be incorrect, not reflecting the latest FEMA Map (Mar. 02, 2016). We recommend adding the floodplain line type to the plan legend.
13. The spacing of evergreens within the perimeter buffer is limited to eight feet; however the spacing shown is greater. Furthermore, the secondary components of the buffer in this section must also be included within said buffer. The entire perimeter buffer must be planted; not only opposite the proposed houses. ZO §27-505.F(2)(j) & ZO §27-606.
This issue still remains regarding the perimeter buffer. Some secondary components like berming have been provided. We defer review of the landscaping provided in the perimeter buffer and for the entire perimeter to E. Van Riker.

SUBDIVISION AND LAND DEVELOPMENT

1. Provide a copy of the title report all with copies of all of the exceptions contained therein. SLDO §602.2.B(8). ***
Satisfied; however, the solicitor should review the title report.
2. Provide a copy of the wetland's report along with the data sheets. SLDO §519.
Satisfied. Copy has been provided.
3. An NPDES Stormwater Permit is required. ***
Issue remains.
4. Street lights must be provided. Chapter 21 §502.4. ***
Street lights have been provided for the new roads. They must also be provided along Chestnut Avenue and Oakland Drive where they do not exist as part of the improvements for those frontages. LED lamps matching the township's existing street lights must be specified; not the Metal Halide as proposed. Details and specifications for the lights are required.
5. The standard recording certifications must be added to the plan. We will provide a copy of these. SLDO §602.2.C(8). ***
Issue remains. Certifications need to be added to the plan sheets that will be recorded.
6. The easements must be a minimum width 20 feet and be described by meets and bounds. SLDO §509.4.A.
Some easements have been widened to the required minimum width of 20 feet. Easement 'G' and Easement 'O' are shown as 15 feet wide and must be increase

to 20 feet wide. A waiver has been requested to allow this width of 15 feet for these two easements within the perimeter buffer; however, I recommend a 20 foot easement be provided. The easements are now described on the plan. Easement 'A' requires a tie distance and Easement 'M' has an incorrect description.

7. The minimum roadway centerline radius is 150 feet. Several radii are only 125 feet. SLDO §503.1.B(2).
Centerline radii have been increased to the required 150 feet in Development 'B'. A waiver has been requested to allow for centerline radii of 125 feet in Development 'A' in three (3) locations. I defer to Andreas Heinrich on this issue.
8. The maximum depressed curb opening width is 18 feet and must be accordingly noted so. Chapter 21 §101.
Satisfied
9. The grass strip between the curb and sidewalk must be three feet wide. SLDO §505.1.C.
The cross-section for the proposed roads provide a grass strip width of 5.5 feet. The Chestnut Avenue improvements provide a grass strip width of 4 feet. Both of these widths are satisfactory.
10. Plan views are required above all profiles. SLDO §602.1.B. ***
Satisfied.
11. Provide profiles of all storm sewers. SLDO §601.5.A.
None provided.
12. All storm sewers are required to be reinforced concrete pipe. SWM Appendix "A" - §C(2)(g)(iv).
Requested Waiver. If HDPE pipe is used, it must have a smooth interior.
13. The condition of the existing frontage curbs and sidewalks must be evaluated and accordingly repaired and/or replaced including the removal of existing curb depressions. SLDO §505. ***
Satisfied. Note added to plan; however note 21 on Sheets 3 and 4 should be expanded to include Chestnut Avenue.
14. A larger scale, like 1"=20', of the detailed plans of both frontage improvements to both Oakland Dive and Chestnut Avenue would be appreciated. The entire frontage along Chestnut Avenue must be widened, including in front of the Hines property. The terminus of the widening must be adequately signed and marked and gently tapered for traffic safety. SLDO §503.1.C(2). ***
A larger scale of 1"=30' has been provided on the detailed plans of the frontage improvements to both Oakland Dive and Chestnut Avenue. The entire frontage along Chestnut Avenue still must be widened, including in front of the Hines

property. The terminus of the widening also still must be adequately signed and marked and gently tapered for traffic safety.

15. All of the existing features must be shown on the grading plans. SLDO §601.3.B.
Existing features are still missing from these plans.
16. A snow removal easement must be provided within the cul de sac. SLDO §509.4.
Satisfied.
17. I am concerned that the berming behind lot 1-10 may block the natural flow of surface runoff from the adjoining lots onto this property. SLDO §507.2.A.
Issue remains, not addressed. Perhaps we need to schedule a field view to look at this issue.
18. Inlet 17 must be relocated about 60 feet southwesterly to the point of curvature of the curb. SLDO §511.1.A.
Issue remains, not addressed.
19. The uncontrolled runoff being directly discharged into the Chestnut Avenue storm sewer system must be first adequately controlled and detained before discharge. SLDO §106.3.D(7).
Issue remains, not addressed.
20. The uncontrolled runoff being directly discharged onto the Hines lot must be first adequately controlled and detained before discharge. SLDO §106.3.D(7)
Issue remains, not addressed.
21. The grading of the rear yard of lot 10 is too flat. SLDO §106.3.A. & SLDO §507.2.A.
Issue remains, not addressed.
22. The discharge from Basin C must be directed to the stream via a stable channel. SLDO §507.2.B.
Satisfied.
23. The discharge from Basin B must be directed under the trail and to the stream via a stable channel. SLDO §507.2.B.
Satisfied.
24. The Fire Marshal must approve the fire hydrant layout. SLDO §517.7. ***
Issue remains.
25. Street signs (e.g. stop, no outlet, dead end, street name, no parking, etc.) must be provided along with their details and sizes. ***

Not completely addressed. Some sign details have been added. No sizes have been specified and sign locations on the layout plans are missing.

26. Curb ramps must be detailed. SLDO §505. ***
Curb ramp details have been added to the plans. Type and location of the curb ramps must be indicated on the plans.
27. Street trees must be spaced at 40 to 50 foot intervals. The spacing shown exceeds this. SLDO §515.
Satisfied.
28. The condition of the existing trail bridge must be evaluated. SLDO §512. ***
Issue remains.
29. We defer the landscaping review to E. Van Riker. SLDO §507.3
Statement remains.
30. The sewer department should evaluate if additional land area is needed for the Chestnut Avenue Pumping Station. SLDO §513.
Additional land area for the Chestnut Avenue Pumping Station has been provided. The sewer department shall determine if the proposed land area is satisfactory.
31. All inlets must have bike safe grates. SLDO §511.1.H.
A bicycle safe grate detail has been added to the plans. It must be noted that all inlets are to have this grate.
32. The storm sewer system must be designed and supporting calculation submitted for review. SLDO §511.1.N.
Issue remains.
33. A typical street cross section must be provided for both the interior streets and the widening of the frontage street. The paving must conform to the ordinance; however, the Superpave mixture must be used in lieu of the Marshall mixtures listed in the ordinance. SLDO §503.1.B(4)(e) & SLDO §503.1.D.
The typical street cross section provided does not conform to the ordinance. The Superpave base course must be a minimum of 6 inches in two equal layers.
34. All of the inlet details shown on the plans must be substituted with the current RC Standard details. SLDO §516.
The inlet box details must reference RC-46M, not "RC-34M".
35. Roadway center line grades at 50 foot intervals (25 foot intervals within vertical curves) must be indicated on the plans. SLDO §602.1.B(2)(a) ***
Satisfied.

36. We recommend the length of the summit and sag vertical curves must be reduced to 25 feet per degree to reduce the flatness. SLDO §503.1.B(3).
Satisfied.
37. Provide street names. Correct the spelling of Barnwood Circle. SLDO §503.1.A(8). ***
Barnwood Circle spelling has been corrected. Proposed street names yet to be provided.
38. The erosion and sediment control plans, notes and details are incomplete. A full review of the Erosion and Sediment Control Plan has not been performed at this time. SLDO §106.
Issue remains.
39. The construction details are incomplete. SLDO §516. ***
Issue remains.
40. A storm water report has not been submitted for review. Stormwater management has not been reviewed. SLDO §511.1.N.
Issue remains.
41. The parallel occupation of storm and sanitary sewer lines must be removed from the buffers so not to interfere with the proposed landscaping. SLDO §509.2A.
Issue remains.
42. The basin must be fenced. The fencing of the pond should be also discussed. SWM Appendix “A” - §B(21).
Fencing has been provided and detailed for Basins ‘A’ and ‘B’. The fencing for Basin ‘A’ must be extended along Proposed Road A behind the proposed guiderail. No fencing has been indicated for Basin ‘C’ nor the pond.
43. The pedestrian access trail must be relocated out of the perimeter buffer along the Hines lot and out of the pumping station driveway. SLDO §505.1.
The pedestrian access trail has been relocated away from the pumping station driveway. The issue of the access trail in the perimeter buffer along the Hines lot remains.
44. The final disposition of the existing perimeter fencing must be addressed. SLDO §601.3.B.
Issue remains.
45. Flow from the township’s basin must be directed under the path. SLDO §507.2.B.
Issue not addressed.
46. Provide sight distance calculations at all intersections. SLDO §503.1.E(5).

Sight distances have been noted on the plans. They appear to be available sight distances, not the required Safe Stopping Sight Distances (SSSD). The plans should properly note both the available sight distances and the desirable SSSD based on the posted speed limit.

47. Indicate the post speed limits of the frontage streets. SLDO §503.
Satisfied.
48. The reconstruction of the Harrow Circle cul de sac must be discussed. SLDO §503.1.C(1)(d).
Satisfied, issue resolved.
49. A waiver request letter must be submitted. SLDO §502.2.
Satisfied, letter submitted.
50. A financial security is required. SLDO §804. ***
Issue remains.
51. We recommend eliminating the 4% grade on Road D so to ensure the approach grade to the intersection with Road C does not exceed 3%. SLDO §503.1.B(4)(d) & SLDO §503.1.E(6).
Satisfied.
52. The widening of Chestnut Avenue must be dimensioned. SLDO §503.1.C(1)(b)(1).
Dimensions have been provided. We recommend additional dimensions be added to sheet 18.
53. The right of way of the cul de sac must terminate at the development boundary. SLDO §503.1.C(1)(d)(8).
Waiver requested.
54. Provide pavement base drains. SLDO §503.1.D(5). ***
Satisfied.
55. All of the new street intersections with the existing streets form four way intersections; which normally are to be avoided. However, we understand and agree with the street intersection, as proposed. SLDO §503.1.E(1).
Statement of agreement.
56. The restrictions to the use of the land within the clear sight triangle, along with their size, must be noted on the plan. SLDO §503.1.E(1). ***
Satisfied.
57. The driveway paving must be detailed. SLDO §504.1.A(1). ***

Satisfied.

58. The maximum driveway stopping area slope is 4%. Several driveways violate this provision. SLDO §504.2.A.
Waiver requested. Perhaps the grade of several units can be adjusted a few inches to comply with the ordinance and minimize the waiver request.
59. The driveways on Lots 65, 48, 49, and 79 are too close to the intersections. SLDO §504.2.B.
Waiver requested. I understand that the garage's are typically placed on the high side of the lot; however, perhaps these units can be mirror-image-flipped to comply with the ordinance.
60. The minimum water main size is 8 inches. SLDO §517.
Satisfied.
61. Corner lots are to be 1.5 times the minimum width of 80 feet, being 120 feet wide. Lots 41, 48 and 65 are too narrow. SLDO §507.1.D.
Satisfied.
62. Double frontage lots are prohibited except along major street. SLDO §507.1.E.
Issue remains. No waiver requested.
63. No topsoil is to be removed from the site. SLDO §507.3.D.
Satisfied.
64. Provide concrete monuments along both sides of all street rights of way at all beginning and ends of curves. The monument must be detailed or equivalently specified. The tract perimeter must also be monumented or existing monumentation must be encased in concrete. SLDO §510.1.
Recommend adding monument symbol to plan legend. Monument must be detailed or equivalently specified. Required monument locations still missing on plans for proposed Road 'A' and along the perimeter tract boundary. Must be noted that existing monumentation along the tract perimeter shall be encased in concrete.
65. Provide a local site benchmark. SLDO §510.2.
Issue remains.
66. All lots are to be pinned. The pins must be detailed or equivalently specified. SLDO §510.3.
Recommend adding pin symbol to plan legend. Pin must be detailed or equivalently specified. Locations shown on plan.

67. The Record Plan is missing several dimensions. Lot area print outs for all of the lots, open space streets and rights of ways would be appraised for our review. SLDO §601.1B.
Missing dimensions have been added, but not all. Some distances do not add up correctly. Lot area print outs have not been provided.
68. A Traffic Impact Fee is required. SLDO §1000.
Issue remains.
69. Dimension the setbacks for the existing Hines buildings to the property line. Do any of these encroach onto the subject property? If so, this should be rectified. SLDO §601.3.D.
Issue remains.

*** Being only a Preliminary Plan submission, these items may be deferred to the time of Final Plan submission.

NEW COMMENTS.

1. The Project Sheet Index for sheets 23-26 incorrectly reference the Sheet Description.
2. The 18" RCP in the profile on sheet 19 and 20 should be labeled as 24" RCP.
3. All storm sewers must be in the centerline of all easements.

REQUIRED PERMITS AND APPROVALS.

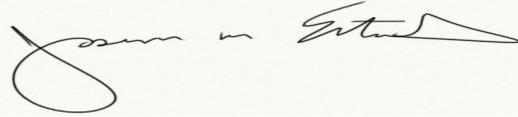
The following permits and approvals are required.

1. A review of the landscaping plan by Mr. E. Van Rieker.
2. Approval by the West Norriton Township Sewer Department.
3. Sewage facilities planning approval from the PaDEP.
4. An NPDES permit for stormwater discharge must be obtained.
5. Approval by the Township Fire Marshal.
6. Both Land Development and Escrow Agreements must be prepared and recorded.

Should you have any further questions, please do not hesitate to contact me.

Mr. Jason Bobst
West Norriton Township
April 11, 2016
Page No. 11.

Very truly yours,

A handwritten signature in black ink on a light green rectangular background. The signature is cursive and appears to read "Joseph M. Estock".

JOSEPH M. ESTOCK, P.E., P.L.S
Township Engineer

JME/nbe

cc: Mr. Michael J. Valyo
Ms. Christen G. Pionzio