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July 8, 2020

Carol Guttschall, Chair
Bedminster Township Land Use Board
1 Miller Lane
Bedminster, New Jersey 07921

Re: 1120/1310 Lamington Road LLC Major Subdivision
Technical Review
Block 39, Lots 12, 15, 21
1120/1310 Lamington Road
Our Project No. 20BD202

Dear Ms. Guttschall:

The above referenced application requests preliminary and final major subdivision and variance approval for lots 12, 15 and 21 in block 39 along Lamington Road. Revised plans have been submitted which show a total of eight lots to be created from the three existing parcels. One of the lots is proposed to be resubdivided after the soil testing is approved by the Board of Health. One of the parcels, lot 15, was the subject of a prior subdivision review before the Board however the conditions of the approval have never been satisfied. The following revised documents have been submitted in support of the application:

1. Cover letter, dated June 26, 2020, prepared by Michael Lavery, Esq.
2. Cover letter, dated June 29, 2020, prepared by Matt Draheim, LA.
3. Subdivision Plans, partial set, consisting of sheets 1-3, 6-9 and 12-14, revised through June 26, 2020, prepared by Ronald A. Kennedy, PE.
4. County Road Plans, consisting of two sheets revised through June 26, 2020, prepared by Ronald A. Kennedy, PE.
5. Resource Constraints Calculations
6. Agricultural and Environmental Outline
7. Agricultural Concept Rendering, dated June 25, 2020
8. Sample Farm House Plan

A review of the above documents results in the following comments for the Board's consideration:

I. Subdivision Plans
   A. Sheet 1 – Project Data/Vicinity Plan
      1. The notes indicate that individual lot development plans will be prepared for each lot when developed. These must be designed to major development stormwater

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management standards since the overall project is a major development. This requirement should be a condition in any approval.

2. Note 26 states has been modified to state that the final paving and all common improvements are to be installed before the final certificate of occupancy. This should be discussed in greater detail. First, the "final certificate of occupancy" should be for the residential structures. Accessory buildings could be installed at any time. Second, it is recommended that there be a time limit by which the final pavement and all common improvements are installed. Finally, all drainage improvements for the roadway should be completed before the first residential certificate of occupancy.
3. The cover letter indicates that the applicant will voluntarily post a performance bond for the roadway and drainage improvements. If this is acceptable to the Board, it should be a condition of any approval that is granted.
4. Note 2 under the zoning table should be corrected to state "every" instead of "ever".
5. Based on the list of variances, proposed lots 15 and 21 are not fully compliant with the Township Land Management Ordinance.
6. The Resource Constraints calculations indicate that the lot yield from lot 12 is 1.73 lots and the yield from lot 21 is 5.05 lots. Lot 15 is not included in the resource constraints calculations however it is included in the subdivision. It is recommended that lot 15 be added to these calculations to evaluate the development potential of the overall tract based on the resource constraints ordinance.

B. Sheets 2 and 3 – Existing Conditions and Environmental Constraints Map – No comments

C. Sheets 4 and 5 – Preliminary and Final Subdivision Plat – NO REVISIONS PROVIDED
   1. All outbound monuments are to be set prior the signing of the final plat.
   2. The map will need to be signed by the applicant prior to submission for signature.
   3. The surveyor certifications on the maps will need to be signed before they are presented for signature.
   4. Lot closure calculations and descriptions must be approved for the private road, all lots and easements prior to signing of the maps.
   5. All easement language must be approved by the Board/Township attorney prior to the signing of the maps.
   6. The notes need to be updated when the LOI/FHA verifications are received.
   7. Note 14 indicates the lot numbers are to be approved by the Tax Assessor. This must be completed before the map is presented for signature and the note should be removed at that time.
   8. As noted above, lot 12.06 needs to be removed from plans and joined with 12.07. The lot area summary will need to be revised accordingly.
   9. The spelling of the name of the Board Secretary must be corrected. (DeLeon)

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10. The setbacks to the existing buildings on lot 21 to the private road right of way need to be shown on the plans.
11. There is a structure on lot 21 that is labeled as a "guest house". If this is a second dwelling, it must either comply with the condition use standard for an accessory dwelling unit, or be a valid, pre-existing, non-conforming use. If it is pre-existing and non-conforming, a D variance is likely required since the lot on which it is located is being made smaller and therefore it is an intensification of a non-conforming use. Alternatively, the structure can be removed.

D. Sheets 6 and 7 – Site Dimension Plan (Preferred Layout)
1. It appears that all individual lots will be major developments under the stormwater standards. Each lot will have to be designed accordingly when the lot development plans are submitted.
2. The septic system for the existing building appears to be on lot proposed lot 21.04. The new system for remaining lot 21 must be constructed prior to the filing of the map.

E. Sheets 8 and 9 – Grading, Drainage and Utility Plan
1. The bio-retention basins are depicted at 1"=100'. Larger scale grading plans for each of the basins are needed to confirm design parameters. 1" = 30' minimum scale plans are recommended.
2. The two proposed culverts and the bio-retention basin outlets (basins #4, 5, 6 and 9) will require permits from the NJDEP and any approval should be subject to those permits.
3. The toe of slope for the proposed bio-retention basins (4, 5 & 6) should be indicated. It appears the grading may extend into the wetland buffers for some of these basins, which would require approval from NJDEP.
4. An inlet will be required on the westerly side of the private road (station 9+25?) adjacent to basin #5 in order for the roadway swale to be directed to the basin as indicated on the post developed drainage area map.
5. Correct the 5' weir invert within the control structure for basin #6.

F. Sheets 10 and 11 – Soil Erosion & Sediment Control Plan
1. These plans will need to be certified by the Somerset-Union Soil Conservation District.

G. Sheet 12 – Driveway Profiles (Preferred Layout) – No comments

H. Sheets 13 and 14 – Construction Details
1. Additional information needs to be provided on how the proposed 12' weir within outlet structure #6 will be constructed.
2. As noted above, 1"=30' plans should be provided for the bioretention basins.

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3. Revise the sand content within the planting bed in the bio-retention basin details to be consistent with Chapter 9.1 of the BMP Manual. The specification for the sand layer should be provided. Also confirm whether the bottom layer of filter fabric will restrict infiltration into the subsoil for the basins that do not have underdrains.
4. Correct the spillway elevation for Basin #6 within the spillway detail.

I. Site Dimension Plan (Conventional Layout) Sheets 1-2 of 3 – NO REVISIONS PROVIDED
   1. Any variances associated with the conventional layout should be described by the applicant's engineer. For example, it appears remaining lot 21 will require variances and therefor this is not a "conforming" layout.
   2. While the plan arguably shows geometry that mostly complies with the ordinance, some of the aspects of the layout do not comply with realistic design. The proposed cul de sac on the road right of way, which provides frontage for four of the lots, is located entirely within the wetlands and would not be permissible by NJDEP regulations. The lots do not use this area for access, however lots 12.06, 12.07 and 12.08 only have access through adjoining lots with the "actual" cul de sac located on portions of lots 12.07, 12.08 and 12.09.

J. Driveway Profiles (Conventional Layout) Sheet 3 of 3 – No comments

K. Sight Distance Plan & Profile (Sheets 1-2 of 2) – No comments

II. Stormwater Management – NO RESPONSE PROVIDED
   A. Stormwater Management Report
      1. The hydrologic soil group for each of the soils should be added to the soil descriptions within the report (page 2).
      2. The coverage summary on sheet 1 of the subdivision plans indicates 2.35 acres of impervious coverage associated with the proposed private road and existing lot improvements on Lot 21 that are to remain. The analysis in the stormwater report indicates 1.9 acres of impervious coverage was used in post developed conditions. The post developed analysis should be revised to be consistent with the coverage included in the coverage summary.
      3. The post developed drainage analysis does not include the proposed lot improvements. It appears the intent of the analysis at POS A (drainage area 1) is for the post developed hydrograph to meet or be beneath the existing. The existing improvements associated with remaining Lot 15 were not included within the analysis. The timing of when these improvements will be removed should be provided, or the improvements should be included within the post developed analysis.

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Also, once detention improvements are incorporated into the design of the proposed lot development plans, a shift in the hydrograph will be likely. It is also noted that the summary tables depict a slight increase in the post developed 100 year storm runoff over what is allowed.

4. Additional topography should be provided to confirm the middle drainage divide that separates areas #1 and #2. The topography provided on the drainage area maps in conjunction with the USGS map in the report (Figure 2) does not provide enough information. Based on the information provided, it does not appear the portion of drainage area #2 north of dwelling on Lot 21 would be tributary to drainage area #2. Additional information needs to be provided to confirm the areas (since under post developed conditions, this area is shown as being within drainage area #6 which is tributary to proposed bio-retention basin #6).
5. Consideration should be given to breaking up EDA#2 into smaller sub areas. Under post developed conditions (with smaller drainage areas), the average runoff curve number is lower than the same area that was used within the existing condition (ie the overall existing drainage area is modeled with an average CN of 72 while post developed conditions utilize a curve number of 71 for some of the subareas where these subareas have the same (undisturbed) vegetated cover as existing conditions; in effect, the post developed coverage results in less runoff than the existing condition even though the land cover is the same for these smaller areas).
6. The time of concentration segment BC for EDA#2 (shown on the drainage area map) is substantially longer than the 220’ used within the calculation.
7. It is recommended that a second analysis point be added within drainage area #1 where the Hoopstick Brook crosses the easterly property line of proposed lot 15.01.
8. It is noted the analysis to POS B (and to a lesser extent POS C) is based in part on detention being provided for offsite areas. If there is a change in the offsite conditions (as a result of future development), it is unknown how this may impact the design. Consideration to bypassing the offsite areas around the proposed basins, to the greatest extent feasible, should be investigated.
9. The post developed drainage boundary line for DA#2 should run along the edge of pavement along the private road based on the proposed grading verses being approximately 15’ off the edge of pavement. The drainage boundary should be revised.
10. Based on the proposed grading, not all of the area on the south side of the private roadway will be tributary to basin #7. The drainage boundary should be revised.

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11. It appears the existing wetlands located at the corner of the private road (adjacent to basin #6) may be partially tributary to Basins #6 and #7. The Engineer should confirm the drainage boundaries in the area.
12. The majority of the area on the north side of the private road appears to be tributary to the culvert and not to Basin #8 based on the proposed grading. The drainage boundary should be revised.
13. It is not clear how water quality will be addressed for the individual lots. The concept improvements depict drywells which cannot be used to treat for water quality.
14. A groundwater mounding analysis needs to be provided for the bio-retention basins that will infiltrate.
15. The bio-retention basin outlet pipes need to be modeled within the routing calculations to ensure they do not control runoff through the control structures (basins 4, 6 and 9 specifically).
16. The proposed runoff volume before infiltration within the groundwater recharge table on Page 6 of the report does not appear to be consistent with the volume within Appendix B3 (18.329 ac-ft verses 17.024 ac-ft) of the report. Clarification is required.
17. The top of berm for basins #4 and #5 appear to be lower based on the grading plans than is listed on the plan and used within the calculations.
18. The engineer shall confirm all of the basins have minimum berm widths and freeboard in accordance with RSIS, and NJDEP Dam Safety for those basins which meet the classification of a dam.
19. The peak times depicted within the pond drawdown chart (Appendix C-3 time vs. elevation summary) does not match the peak times in the routing (Page 2 of 99; Section C-1) for the water quality storm.
20. Basin #4 appears to empty at 40.08 hours (verses 50.05 hours within the pond drawdown chart) for the 100 year storm event.
21. The 100 year routed peak water elevation is above the emergency spillway crest within Basin #9.
22. The emergency spillway analysis utilized 11.3 inches of runoff (in 24 hours) where the 100 year plus 50% would result in 12.3 inches of runoff (using 100 year storm of 8.2 inches in 24 hours).
23. The peak outflow rates are based on an interpolated flow rate whereas they should be based upon the computed rates in the analysis. The summaries should be revised.
24. The computational time increment within the unit hydrographs varies with the different drainage areas. Additional information for the computer software being

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utilized should be provided. It is not clear why a consistent time increment would not be used.

25. The low impact development checklist at section 3.2B indicates that permanent site disturbance is being restricted as part of the current application, with the reasoning being that any additional disturbance will require additional approval from the Township of Bedminster. It is not clear how this would meet a restriction on permanent site disturbance. It is recommended that areas that have been modeled in post developed conditions as woods and or meadow be restricted against development since these areas have a lower runoff potential than would lawns and impervious areas associated with single family homes. The grading plans should depict a maximum grading limit for each lot so that these areas could be quantified.
26. The reasoning included within the low impact development checklist at section 3.2E and 3.3G do not appear to be applicable since reducing the setbacks and shortening the driveways have no bearing on the development of the private road and associated improvements. Clarification is required.
27. As currently designed, each lot development will need to be designed as a major stormwater development that follows the framework of the overall site analysis (ie each lot should not be submitted as its own individual project, but should include the remainder of the site as well, to confirm that the addition of the different hydrographs for the different phases of the project still meet the requirements for the overall site). This should be addressed in the individual lot deeds in the event that different engineers are utilized to develop the individual lot improvements. Alternatively, the current analysis could be designed to incorporate stormwater improvements based on maximum permitted lot coverages and disturbance.
28. A separate map depicting the location of the soil testing being utilized for the drainage analysis should be provided.
29. It appears that some of the proposed bio-retention basins are located closer in proximity to wetlands than where the soil testing was taken being utilized for the drainage analysis. As a result, design assumptions (infiltration, depth to groundwater) used within the analysis cannot be confirmed at this time.
30. The depth to the first low level outlet in basin #6 needs to be lowered to the routed elevation of the water quality storm event (approximately 128.65'). The current low level outlet is set at elevation 129.20'. This will result in greater than the volume of the water quality design storm being infiltrated, which is the maximum allowed per the NJDEP BMP Manual.
31. The applicant indicates additional soil testing will be undertaken within the footprints of the bio-retention basins in accordance with Appendix E of the NJDEP BMP

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Manual. This testing should be done prior to signing of the subdivision map or the construction of the road.

32. The storm sewer analysis is based on the 25 year design storm. The 100 year storm event needs to be analyzed to confirm the 100 year storm runoff will reach the basins. Hydraulic grade line calculations should be included within the analysis.
33. Swale conveyance calculations need to be provided in the report.
34. An Operations and Maintenance (O&M) manual for the private road and the associated drainage improvements will need to be submitted for review and approval.
35. Individual O&M manuals will need to be prepared for each lot as they are developed.
36. Compliance with the O&M manuals should be included as a deed notice for all lots.

III. Resource Constraint Calculations

A. The overall tract resource constraint calculations show an "as of right" lot yield of 7 lots. If the three existing parcels are taken individually, the ordinance requires that each lot be "rounded down" and the total of the three would be 6 lots. Notably relief was granted for lot 15 to allow two lots although the resource constraints yield would be one.

B. On an individual lot basis, the table below shows the required gross lot area for each proposed lot according to the resource constraints calculations as well as the gross lot area provided.

Proposed Lot	Required Area	Proposed Area	Compliance
Remaining 12	16.65 Ac	12.325 Ac	No
Prop. 12.07	25.12 Ac	27.886 Ac	Yes
Future 12.06*	18.41 Ac	12.796 Ac	No
Future 12.07*	16.71 Ac	14.872 Ac	No
Prop. 12.08	15.26 Ac	15.603 Ac	Yes
Prop. 12.09	11.40 Ac	12.924 Ac	Yes
Remaining 15	14.10 Ac	10.890 Ac	No
Prop. 15.01	11.55 Ac	10.837 Ac	No
Prop. 21.04	15.68 Ac	10.478 Ac	No
Remaining 21	11.69 Ac	12.582 Ac	Yes

Based on the above, four of the seven proposed lots comply with the resource constraints standards. The two "future" lots to be created from one of the conforming lots will not comply with the standards.

IV. Agricultural and Environmental Outline

A. The report outlines a vision for the development in an effort to demonstrate that, notwithstanding the non-complying lots identified above, the proposal advances various

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purposes of the Master Plan. The applicant should identify how the significant restrictions on everything from architecture to the types of crops will be restricted on the lots and enforced. While deed restrictions on elements such as the residential farmhouse exception seem fairly routine, other restrictions such as regenerative agriculture and net zero building design seem more challenging. These concepts are not only difficult to define and quantify, they are difficult to enforce over time.

B. The plan indicates that the association fees will not only pay for roadway and drainage maintenance, they will support the operating farm budget. The budget and funding need to be reviewed to ensure there are adequate funds available for both of these objectives. All association documents should be reviewed by the Board and Township Attorneys. The Board may want to consider a review of a pro forma analysis of the costs be provided to demonstrate the viability of the concept.
C. The vision goals include "yoga and farm community events and outdoor activity and education". Is the intent for these activities to be restricted to the residents of the community or will the public be invited to these events? If the public is invited, size limitations may be appropriate based on the limited available parking.

I trust the above comments are useful to the Board in its review of the application.

Very truly yours,

Paul W. Ferriero, PE, CME
Township Engineer

cc: Board Members
Thomas Collins, Esq.
Frank Banisch, PP/AICP
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