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August 26, 2024

Mr. Mark Healey, PP/ AICP
Director of Planning/ Senior Zoning Officer
Franklin Township
Municipal Building
475 DeMott Lane
Somerset, NJ 08873

Re: Devin Developers, LLC - Preliminary and Final Major Subdivision w/ "c" Variances – 11 Bunker Hill Road – Block 11.06 Lot 11.01 & Block 20.01 Lot 16.01 (PLN- 21-00019)

Dear Mr. Healey:

We have reviewed your Memorandum dated March 29, 2022 and offer the following comments:

1. I offer the following regarding the requirements of the R-10B zone:

a. The development complies with the 2.1 dwelling unit/ gross acre density limit for single-family development in the R-10B zone. The zoning table on the subdivision plan should reference the proposed density of 1.99 dwelling unit/ gross acre.

Response – Noted in Footnote 9. (a) on Sheet 1.

b. The development complies with the 25% open space requirement for single-family development in the R-10B zone. The zoning table should reference the proposed 25.68% open space.

Response – Noted in Footnote 9. (b) [1] on Sheet 1.

c. The R-10B zone requires that open space areas be 4-acres in size. The proposed open space area is 1.035-acres. Variance required. The zoning table should reference the 1.035-acre figure for the proposed open space area.

Response – Noted in Footnote 9. (b) [2] on Sheet 1.

d. The R-10B zone requires that open space areas be at least 250 feet in width. At its most narrow the proposed open space area would be 120.1 feet in width. Variance required. The zoning table should reference the proposed width of the open space area.

Response – Noted in Footnote 9. (b) [3] and on Zoning Table on Sheet 1.

e. There are several significant discrepancies between the plans and the zoning table with respect to proposed lot frontages (e.g., the table indicates frontages that are approximately 20 feet greater than shown on the plans for lots 1,2,3 and 8). The plans and zoning table should be revised to consistently identify proposed lot frontage. As per the R-10B zone, it is measured at the front setback line. Lastly, the lot frontage for each lot should be dimensioned on the plan.

Response – The lot frontages have been revised on the zoning table and are shown on Sheet 4.

f. There are minor discrepancies in the proposed lot areas for several lots between the plans and the zoning table. The plans should be revised to be internally consistent.

Response – The lot areas have been revised.

g. The rear setback on lot 5 and 6 is incorrectly labeled as 25' on the plat. 1.

Response – to be addressed by the Surveyor.

2. The proposed connection to sewer in Brookside Drive is proposed to traverse through a Township-owned open space parcel located between Brookside Drive and Route 27. This property is on the Township's Recreation and Open Space Inventory (ROSI). This is likely to be a very significant issue as it is unclear whether the Township has the ability to authorize a utility extension through a property on its ROSI.

Response – the applicant has secured an easement from the owner Block 11.06 lot 15 and the plans have been revised to show the proposed sanitary sewer connection thru an easement on Block 11.06 lot 15.

3. The applicant should clarify the plans for the open space area – e.g., is it proposed to be dedicated to the Township; owned by a homeowners association and/or encumbered by a conservation easement? Necessary plan modifications should reflect this plan.

Response – to be addressed by the Attorney.

4. I offer the following regarding tree preservation/ replacement and the proposed landscape plan:

a. Sheets 3 and 6 contain vastly different tree replacement calculations to address Chapter 222. This should be corrected.

Response – The plans have been revised accordingly.

b. Replacement trees shall a minimum of 2.5” caliper. The proposed sizes don’t qualify toward replacement. The size of all deciduous trees should be reflected in caliper size.

Response – The proposed size of the Replacement Trees has been revised to a minimum of 2.5” caliper on Sheet 6.

c. Any payment-in-lieu shall be paid prior to filing of the subdivision plat.

Response – Noted.

d. Since the trees reflected on the plans are counted towards the replacement requirement, plot plans submitted for building permit for each lot will be required to reflect the number/ size of trees reflected on the approved subdivision plans.

Response – Note 15 has been added to Sheet 6.

e. The plan should propose consistent spaces spacing of street trees (40-50’ on center) rather than the random spacing proposed.

f. I question the viability of planting on proposed steep slopes.

Response – Noted.

g. Trees should not be proposed in or adjacent to proposed easements.

Response – The plans have been revised to move the trees out of the proposed easements.

h. The plans should consistently reflect the proposed limit of disturbance and proposed tree line for the development (there are some discrepancies).

Response – The plans have been revised accordingly.

To the extent possible, the plan should seek to preserve existing large, healthy trees around the perimeter. The plan also needs to make it clear that the existing line of trees between Brookside Drive and Route 27 would be undisturbed.

Response – Noted.

5. The application form indicates that the road would be private. It is assumed that a homeowners association would be formed for its maintenance. The applicant should clarify and necessary changes reflected on the plans.

Response – General Note 8 has been added to Sheet 4.

6. The cul-de-sac road should meet Bunker Hill Road at a 90-degree angle.

Response – The intersection has been designed to meet the Residential Site Improvement Standards section 5:21-4.19 Street grade, intersection, pavement, and lighting construction standards (a) The following apply to street grade:

(b) The following shall apply to intersections: 1. Street intersections shall be as nearly at right angles as possible and in no case shall be less than 75 degrees.

7. The plans should propose sidewalks along the entirety of the site’s frontages on Bunker Hill.

Response – The plans have been revised accordingly.

We have reviewed the April 8, 2022 Report from Robert J. Russo of CME Associates and offer the following comments:

B. GENERAL SITE IMPROVEMENTS

1. Official street addresses shall be obtained from the Franklin Township 911 Coordinator

Response – Noted.

2. An Engineering Cost Estimate will be required once final plans are signed-off on by the Board. Upon approval, applicant shall provide appropriate bonds and Engineering inspection fees and attend a pre-construction meeting, prior to any site work.

Response – Noted.

3. All fees shall be paid by the applicant at the time of adoption of a resolution of site plan approval for the cost of making upgrades and modifications to the Tax Maps and geographic information system (GIS) (S112-329).

Response – Noted.

4. At the time the final plans are submitted for signature of the municipal officials, the applicant shall submit CAD generated data files, prepared by a New Jersey licensed land surveyor, directly translatable into an identical image of the plan per the requirements of Ordinance 112-329.

Response – Noted.

5. Note: An As-Built Plan prepared by a licensed Land Surveyor is to be submitted to the Township prior to any Certificate of Occupancy inspection or the release of performance bonds. Same should be noted on the site plan.

Response – General Construction Note 7 on Sheet 4 has been added.

6. Note: No soil can be imported to or removed from the site until a Soil Importation or Exportation Permit has been obtained from the Township as required by the Ordinance. Soil removal shall be in accordance with 206 of the Ordinance. Same should be noted on the site plan.

Response – General Construction Note 10 on Sheet 4 has been added.

7. Copies of any easements, exceptions, deviations, or liens on the property should be presented to the Board in accordance with the ordinance the maximum permitted density shall be 2.1 dwelling units per gross acre for single-family residential developments. It appears the applicant complies with this required density; however, the applicant should note the density proposed on the zoning chart demonstrating compliance with the ordinance.

Response – Noted.

9. A minimum of 25% of the tract shall be set aside as open space for single-family residential developments. The applicant should provide the proposed open space percentage on the zoning chart demonstrating compliance with the ordinance.

Response – Noted in Footnote 9. (b) [1] on Sheet 1.

10. A variance is required for the minimum size of the open space area. A minimum of four (4) acres is required and it appears the applicant is proposing 1.03 acres. The applicant should verify that open space figure shown on the site plan and coordinate same with the figure shown on the zoning chart located on the title sheet.

Response – Noted in Footnote 9. (b) [2] on Sheet 1.

11. A variance is required for the minimum width of an open space area. A minimum width of 250 feet is required and it appears the applicant is proposing approximately 120 feet. The applicant should clearly identify the width of the open space area on the zoning chart on the title sheet.

12. In accordance with section 5:21-4.19.b.1 of the Residential Site Improvement Standards (R.S.I.S.) street intersections shall be as nearly at right angles as possible. The proposed roadway should be installed perpendicular to Bunker Hill Road.

Response – The intersection has been designed to meet the Residential Site Improvement Standards section 5:21-4.19 Street grade, intersection, pavement, and lighting construction standards (a) The following apply to street grade:

(b) The following shall apply to intersections: 1. Street intersections shall be as nearly at right angles as possible and in no case shall be less than 75 degrees.

13. Label the curb radii at the intersection of Road A and Bunker Hill Road. In accordance with RSIS section 5:21-4.19.b.3, a minimum radius of 25' is required.

Response – The curb radii are 25' and Sheet 4 has been revised to show the radii.

14. Provide sight triangles in accordance with RSIS 5:21-4.19.b.6.

Response – The plans have been revised accordingly.

15. The applicant should provide sidewalk along the Bunker Hill Road frontage. ADA accessible curb ramps should be installed along Road A at its intersection with Bunker Hill Road. In addition, while this office defers to the NJDOT we recommend that sidewalk be installed along the Route 27 frontage. Retaining walls may be required to limit the disturbance along the proposed open space lot.

Response – The plans have been revised accordingly.

16. The application form submitted for the Major Subdivision states that, 'access to the single family homes will provided through a private road.' The subdivision plan should clearly note that Road A is a private roadway.

Response – General Note 8 has been added to Sheet 4.

17. The Subdivision plan notes that curb is proposed; however, the site plan notes that no curb is proposed. Belgian block curbing should be installed along Road A. Plan coordination is required.

Response – The plans have been revised accordingly.

18. The applicant has provided open space in accordance with the ordinance. The applicant's final design/maintenance responsibility for this area is unclear. Please note, the Board has previously recommended to the governing body that the Township not accept title to open space lots but required that the proposed open space be restricted in perpetuity from further development other than as permitted whether by deed restriction and/or conservation easement to the satisfaction of Township staff and the Board Attorney.

Response – to be addressed by the Attorney.

19. Various lot areas listed on the zoning table on the sheet no. 1 of the site plan do not match the areas listed on the subdivision plan, sheet no.4. Plan coordination is required.

Response – the plans have been revised accordingly.

20. In accordance with R.S.I.S. standards, 2.5 parking spaces are required for each single family home since the number of bedrooms has not been specified. The cover sheet indicates that 2 car garages and two cars in the driveway are proposed for each dwelling. In accordance with RSIS, a two-car driveway and driveway combination shall count as 3.5 off-street parking spaces. The parking calculation shown on the title sheet should be revised. The applicant should provide testimony regarding the number of cars that are proposed in the garage. It appears the parking demand will be met upon confirmation of a proposed two car garage in each dwelling. The grading and utility plan, sheet no. 5, notes a proposed garage floor for only proposed lot 8, clarification is required.

Response – the plans have been revised accordingly.

21. In accordance with R.S.I.S. standards, where granite block curb is used, a transition from granite block to concrete shall be provided at all accessible sidewalk ramps or curb cuts. Same should be delineated on the site plan and a construction detail should be provided.

Response – The plans have been revised accordingly.

22. An existing block wall from Block 11.06 Lot 1 crosses onto the subject property by approximately 8.9' in the northeast corner. It appears the applicant will allow the wall to remain. The applicant should clarify if that is the intent. If so, an easement should be granted to the neighboring property.

Response – The Applicant's attorney will be requesting the owner of Block 11.06, Lot 1 to relocate the block wall onto Lot 1. A note has been added to Sheet 4.

23. This office defers to the Fire Prevention Officer as to the appropriate number of Fire Hydrants and their location.

Response – Noted.

24. The design and placement of all traffic signs and striping shall follow the requirements specified in the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," (MUTCD) published by the U.S Department of Transportation and adopted by the N.J. Department of Transportation. Same should be noted on the site plan.

Response – Noted.

25. The applicant should install a street name sign for Road A at its intersection with Bunker Hill Road.

Response – Street sign is shown on Sheet 4.

26. The Applicant's Engineer should design the proposed curb ramps, sidewalks, and crosswalks, to meet the latest ADA requirements. The Applicant's Engineer should provide turning spaces before and after proposed ramps as necessary at the required slopes and the locations of proposed detectable warning surfaces should be clearly indicated. This ADA compliance issue should be reviewed relative to all curb ramps, sidewalks, and crosswalks currently proposed under this project.

Response – The plans have been revised accordingly.

27. This office defers review of the Soil Erosion and Sediment Control Plan to the SUSCD, the project and silt fence limits should be revised to include all grading and storm sewer improvements; particularly between Lots 2 and 3.

Response – Noted.

28. A demolition plan should be provided, clearly identifying all items to be removed. All items to be removed, such as fencing, trees lines, gravel driveways, structures, garages, utility poles, overhead wires, fiber optics line, storm sewer inlets and piping, etc. should be removed from the remaining site plan sheets. The existing storm sewer piping must be removed and cannot be abandoned.

Response – All of the existing structures on the property are to be removed.

29. The existing depressed curb cut along Bunker Hill Road servicing the former sites gravel driveway should be removed and replaced with full height curb.

Response – The plans have been revised to show the curb replacement.

30. The sidewalk should be offset 6" to one foot from the R.O.W. line, so that it doesn't encroach or at least makes it possible to set corners and monuments.

Response – The plans have been revised accordingly.

C. GRADING AND UTILITY COMMENTS

1. The applicant is proposing utility easements for both stormwater and sanitary sewer improvements. This office recommends a Homeowner's Association be established setting forth ownership and maintenance responsibilities.

Response – Noted.

2. The site plan proposes traversing Block 11.06 Lot 17 (without a utility easement) to install the proposed sanitary sewer improvement connection along Brookside Drive. This lot is owned by the Township and open space; therefore, the proposed sanitary sewer line most likely cannot traverse this lot. Please note, Brookside Drive is an offsite public roadway. These offsite improvements will require Governing Body approval.

Response – the plans have been revised to show the proposed sanitary sewer connection thru an easement on Block 11.06 lot 15.

3. The existing manhole located in the Brookside Drive cul-de-sac shows the existing 8' PVC running to an unknown terminus traveling east through Block 11.06 Lot 16. The applicant's engineer should further investigate the termination location of this line as it appears to travel toward the proposed open space lot.

Response – the 8" PVC appears to end outside of the existing manhole. .

4. No geotechnical information has been provided. All basement floor elevations shall be a minimum of two feet above the seasonal high ground water elevation (SHGW).

Response – All basements will be a minimum of 2 feet above seasonal high ground water elevation (SHGW).

5. The applicant should provide, in table format, cross tabulations for sanitary/ storm sewer/ water/ utility crossings (including lateral crossings) with corresponding clearances to reflect the avoidance of conflicts with other underground utilities, as required. The site plan should indicate the proposed location of all required concrete cradles. This will be reviewed further; however, 18" separation is not achieved between the 18" RCP and water main near Inlet #81 . In addition, the proposed water main and sanitary sewer appear to be set approximately the same elevation; it is unclear if the water services and sanitary laterals will have proper clearance.

Response – The plans have been revised accordingly.

6. The utility plan should delineate the location of all curb boxes for each dwelling.

Response – The plans have been revised accordingly.

7. Roadway cross sections should be provided, 50' o.c., for further review

8. The stormwater shown on the profile near station 2+00 is mislabeled. Also, the pipe size and invert elevations for the storm sewer pipe shown on the grading and utility plan sheet and the profile do not match. Plan coordination is required.

Response – The plans have been revised accordingly.

9. The applicant should address the following general grading comments: .

- The applicant should provide detailed grades at all handicap ramps at the intersection of Bunker Hill Road and Road 'A' to ensure same are ADA compliant and meet current regulations. All landings and truncated domes should be delineated;
- Generally, all the side yards between the dwellings are set to a 1:3 slope, the maximum allowable

engineering slope without requiring a retaining wall, which will make the side yards unusable and difficult to maintain for the residents. This office strongly recommends that slope between the side yards be reduced. Testimony should be provided to the Board regarding this item;

- The design engineer is setting the basement floor elevations of the northern dwellings at or above the existing grades for Lots 5 through 8 resulting in large fills. We recommend the applicant's review same further;
- It appears that the applicant is proposing drainage swales along the northern property line to low points set by new proposed inlets. Spot elevations should be provided demonstrating a minimum of 2% slope is provided to the proposed inlets. Please note the proposed inlets should be relocated 10' of the property line as noted in the stormwater management section of this review letter; . The proposed 167' contour on Lot 7 ends in the middle of the lawn area and should be evaluated further; . Front and back of sidewalk elevations should be noted at 50' intervals, demonstrating ADA compliance; . There is insufficient information on the grading plan to verify proper drainage slopes from the proposed dwellings to the cul-de-sac. The grade appears to drain toward the centerline stationing proposed;
- Label grate elevations for all type B inlets;
- The proposed roadway centerline slope of 6.11%, from its intersection of Bunker Hill Road, is too steep and should be reduced. In addition, the profile notes a 100' vertical curve is proposed, yet the grades shown the plan do not correspond to a vertical curve and the final grade is drawn to the PVI and not reflecting the vertical curve. This is noted on the profile as a high point yet same is not a high point;
- The proposed 171 contour shown along the northern sidewalk of Road A is unacceptable. A consistent cross slope is required;
- The running slope of the sidewalk between approximately station 0+75 and 1+05 exceeds 5% and is not ADA compliant;
- There appears to be a natural high point in the topography at approximately station 2+20 of the profile for the road. We recommend the applicant evaluate following the natural slope of the topography, which will reduce the fill needed at the cul-de-sac. The fill proposed at the end of the profile is 8.14' and up to approximately 14' that is causing the 1 :3 side yard slopes mentioned above. This office recommends the fill depth be reduced;
- The proposed 163' contour is missing near F.E.S. #7 on Lot 6; . The tree clearing limits should be coordinated with the proposing grading and utility plan; i.e. grading is proposed 32' within the existing tree line for Lot 5, and the proposed sanitary sewer improvements are proposed within the proposed 20' wide easement along the open space lot. This should be reviewed for the entire project;
- It is unclear how the proposed grass swales will function with the proposed driveway aprons;
- Spot elevations should be provided at the bottom of curb, top of depressed curb, back of apron and back of sidewalk crossing (demonstrating the cross slope does not exceed 2%) at each driveway;
- The proposed driveway slope for Lot 1 is too steep and should be reduced;
- The proposed northeast building corner for Lot 5 is set at elevation 177 and the proposed northwest building corner for Lot 4 is set at elevation 176. The proposed contour shown on the site plan shows these elevations being the same. Clarification is required;
- The grate elevation for inlet #83 is set at 173.90 creating a low point along the southern gutter line which does not correspond to the grading shown on the profile. A minimum slope of 0.50% is required along all paved areas. The proposed slope between inlet #E3 and proposed contour 174 is 0.11% and should be revised;
- The applicant is raising the existing grade at proposed inlet #E5 approximately 4.3" which may cause a ponding water situation on the open space lot;
- It appears a valley gutter is proposed at the intersection of Road A and Bunker Hill Road. Additional spot elevations should be provided demonstrating same. It is unclear how the existing 169' contour along Bunker Hill Road ties into the proposed 169' contour;

- Additional spot elevations along the northern property line should be provided demonstrating proper grading/ inlets to avoid ponding water on the neighboring properties;
- Label the top and bottom of curb tie-in elevations along Bunker Hill Road;
- A minimum of 2% slope is required in all landscaping/ lawn areas. The following areas need to be addressed:
 - There is less than 2% slope between the proposed 170' contour and proposed retaining wall at the infiltration basin;
 - There is less than 2% slope between the existing 166' contour and Inlet #3;
 - There is less than 2% slope between the existing 165' contour and Inlet #3;
 - There is less than 2% slope between the existing 166' contour on existing lot 3 and the proposed 166' on proposed Lot 7;
 - There is less than 2% slope on Lots 4 and 5 because the 176' contour ties into the existing 176' at two separate locations. Either a high point or regrading of the proposed 176' contour is required.
- A maximum of 1:3 slope is permitted in all landscaping/ lawn areas. The following areas need to be addressed;
 - There is more than 1:3 slope between the proposed 164' and 165' contours south of inlet #4 on proposed lot 7;
 - There is more than 1:3 slope between the proposed 176' and 177' contours south of inlet #4 on proposed lot 7;
 - There is more than 1:3 slope from the existing topography on Block 11.06, Lot 2 to proposed inlet #3.

Response – The plans have been revised accordingly.

The grading will be reviewed further in its entirety when the above has been addressed.

10. The applicant should add the following notes to the plans:

- All construction shall comply with the current rules and regulations/ or ordinances of Franklin Township, NJDEP, AWWA and all applicable regulatory agencies having jurisdiction.
Response – Note has been added on Sheet 5 Utility Note 7
- The minimum clearances between water mains and sanitary sewers shall be in accordance with the State standards, i.e. Minimum horizontal clearance between water main and sanitary sewer in parallel shall be ten ft. (10'), Minimum vertical clearance between pipe crossing shall be eighteen inches (18") with the sanitary sewer below the water line. If such minimum vertical clearance cannot be provided, the sanitary sewer shall be encased in concrete ten ft. (10') from each side of the crossing or a total of twenty ft. (20').
Response – Note has been added on Sheet 5 Utility Note 8
- Water mains crossing storm sewers or drains where the clearance between the pipes is less than eighteen (18") inches, pier supports for the storm line shall be provided in order to prevent the load transfer to the affected utility.
Response – Note has been added on Sheet 5 Utility Note 9

D. LANDSCAPING AND LIGHTING COMMENTS

1. Applicant provided a tree removal and replacement plan to satisfy the requirements of Ordinance \$222- Trees. This office defers to the Township Planner as to the adequacy of the tree replacement plan, as well as the adequacy of the proposed landscaping and buffering to adjacent properties, respectively.

Response – Noted.

2. The applicant shall revise the Landscaping Plan to include the following note: "Any plant relocations/substitutions shall be submitted to the Township for review and approval prior to installation."

Response – Note has been added on Sheet 6 Utility Note 14

3. Various landscaping is proposed over proposed water and sewer services for the residential dwellings. The proposed landscaping should be relocated for to provide a minimum of 10' separation.

Response – The plans have been revised accordingly.

4. The lighting provided should contain LED fixtures. It appears the applicant is utilizing PSE&G for the site lighting; a lighting agreement should be made between the local utility and the Homeowner's Association.

Response – Noted.

5. The proposed street trees along Bunker Hill Road should be relocated onsite and out of the public right-of-way

Response – The plans have been revised accordingly.

E. ENVIRONMENTAL IMPACT COMMENTS

1. Section II.D. Vegetation: should be updated to include information from the tree survey performed for the site and any proposed tree replacement plan.

Response – The Report has been revised accordingly

2. EIS should be updated to include the following documents in the appendix:

- o A copy of the existing conditions plan
- o A copy of the overall proposed conditions plan

Response – The Report has been revised accordingly

F. STORMWATERMANAGEMENT

It does not appear geotechnical testing was performed in accordance with Chapter I2 of the BMP. This office cannot finalize the stormwater management review without same; this information is required in accordance with the Stormwater Management Rules. We recommend this applicant does not go before the Board until after the geotechnical testing is performed and a full review of the stormwater management system has been completed by this office.

General

1 The Applicant proposes one (1) infiltration basin to address stormwater management, water quality, and recharge.

Response – Noted.

2. The reference project has been reviewed in accordance with the Stormwater Management Rules NJAC 7:8 as amended March 2,2020.

Response – Noted.

3. The project site is located within the review zone of Delaware and Raritan Canal Commission and the Applicant should obtain a certificate of approval or exception from the Commission. A copy of the permit should be provided to this office.

Response – Noted.

4. The Applicant must obtain a Soil Erosion and Sediment Control Certification from the Somerset-Union Soil Conservation District. A copy of the plan certification must be provided to this office.

Response – Noted.

5. The proposed development proposes more than 1 acre of land disturbance and must obtain a General Permit for Construction Activities from the NJDEP. A copy of the permit must be provided to this office.

Response – Noted.

6. An executed Major Development Stormwater Summary (Attachment D of the Tier A MS4 NJPDES Permit) shall be submitted to this office for review and approval.

Response – Noted.

7. Provide a Stormwater Maintenance Agreement for the stormwater system to ensure future maintenance. A sample agreement is available from the Engineering Department.

Response – A Stormwater Maintenance Agreement will be provided prior to Plan signoff.

8. NJDEP Letter of Interpretation (LOI) for wetlands presence/absence must be obtained for the property, and a copy of the LOI must be provided to this office.

Response – Noted.

9. Some of the drainage calculations in the report use a minimum time of concentration (Tc). According to the NJDEP BMP manual, there is no longer a minimum or default value that may be used for the time of concentration (Tc). Tc for pre-and post-construction conditions must be calculated based on guidance provided in NJDEP BMP Manual Chapter 5 (updated April2021) Section 8. The calculations in the drainage report must be updated using calculated Tc's.

Response – The Stormwater Management Report has been revised.

10. Infiltration basin area up to 100-year storm elevation must be treated as having impervious cover in post developed peak flow calculations.

Response – The Stormwater Management Report has been revised.

11. In accordance with BMP Manual chapter 9.8, a pretreatment forebay is required for small-scale infiltration basins with a capacity equal to 10% of the volume of water quality design storm (WQ). All runoff entering the infiltration basin must pass thru the pretreatment forebay.

Response – The Stormwater Management Report has been revised.

12. Applicant must demonstrate that the infiltration structure design conforms to the BMP manual guidelines. Geotechnical investigations must be performed in accordance with Chapter 12 of the BMP manual and provided for the Town's review.

Response – The Stormwater Management Report has been revised.

13. As per BMP Manual requirements, the minimum distance between the bottom of an infiltration basin and the seasonal high water table is 2 feet. Testing in accordance with chapter 12 of the BMP Manual must be conducted to establish the seasonal high groundwater table and demonstrate compliance with the minimum separation. A geotechnical investigations report was not provided, and compliance could not be verified.

Response – The Stormwater Management Report has been revised.

14. The drainage report should be updated to include a geotechnical investigations summary table listing the following for each BMP: area of BMP, depth of BMP; the number of test pits/boring/soils profiles performed for the BMP; seasonal high water table established; top of bedrock and the number of soil investigations required by chapter 12 of BMP Manual. The compliance with all geotechnical testing requirements of the chapter 12 BMP Manual must be documented in the drainage report.

Response – The Stormwater Management Report has been revised.

15. The location of all test pits excavated within the limits of the proposed infiltration basin should be shown on the Grading and Utility Plan. The excavation depth, seasonal high water table, and permeability rate should be shown for each test.

Response – The plans have been revised accordingly.

16. A site-specific Basin cross-section shall be provided on the plans. The section must show the elevation of the bottom of the soil bed, the elevation of the bottom of the infiltration basin, the elevation of the season-high groundwater table, the maximum water elevation for the WQ storm, 2-yr, 10-yr, 100-yr, emergency storm event, and top of berm elevation. Basin drain time should also be noted on the infiltration basin cross-section.

Response – The plans have been revised accordingly.

17. In accordance with BMP Manual requirements, post-construction testing must be performed on the as-built infiltration basins to ensure that the installed BMP functions as designed. Where as-built testing shows a longer drain time than designed, corrective action must be taken, and the basin should be retested. A note should be included in the Grading and Utility plan stating this requirement.

Response – Note has been added on Sheet 5 Grading and Utility Note 11.

18. An access road 18-ft wide at a maximum slope of 1:4 should be provided for the infiltration basin for maintenance purposes. Construction detail of the access road should be provided.

19. The stormwater report should be updated to include a summary table of design parameters for the infiltration basin such as inflow area, water quality volume, basin area, filtration rate of soil media, infiltration rates, separation from seasonal high groundwater table, and drain time and demonstrate compliance with NJ BMP design standards in chapter 9.8,

Response – The Stormwater Management Report has been revised.

20. The Grading and Utility plan should be revised to note the maximum water elevation for the water quality, 2-yr, 10-yr, 100-yr, emergency spillway storm events, and drain time for the proposed Infiltration Basin.

Response – The plans have been revised accordingly.

21. In accordance with ordinance S 330-7.T.(10), all storm sewer structures, piping, basins, scour holes, rip-rap, and BMPs shall be located a minimum of 10' from all property lines and right-of-way lines. The infiltration basin does not meet this requirement and must be revised. Our office recommends that the

infiltration basin be moved as close to Lot I as possible and buffering be provided between Bunker Hill Road and the basin.

22. the applicant's engineer should clarify why an irregular shaped infiltration basin/wall is proposed with various breaks within line segments of the wall. The constructability of this block wall may be challenging. In addition, the applicant should clarify the need for the proposed retaining wall. It appears there is sufficient area to grade out the basin and lessen the maintenance responsibility of the Homeowner's Association. This office would recommend the block wall be eliminated. Kindly provide testimony regarding same.

Response – The retaining wall has been revised.

23. Once the infiltration basin is moved west, as noted in comment no. 21 above, the 36" HDPE, Inlet #1 and the 15"RCP discharge pipe from the OCS should be relocated onto Lot 9 and out of the public right-of-way. The Township will not accept any maintenance responsibilities for these structures and piping.

Response – The plans have been revised accordingly.

24. In accordance with RSIS 5:21-7.8.4.ii.(4), the minimum width of the top of the berm in a Basin shall be 6 feet. The proposed infiltration basin is not in accordance and should be revised.

25. The Applicant is proposing to meet the water quality peak reduction, water quality total suspended solids reduction, and groundwater recharge standard by using an infiltration rate of 2 in/hr. No backup infiltration testing is provided for the infiltration rate, and compliance with post-development stormwater management standards at 7:8 could not be verified.

Response – The Stormwater Management Report has been revised.

26. The drainage report must be updated to provide a groundwater mounding analysis for all infiltration structures.

Response – The Stormwater Management Report has been revised.

27. In accordance with RSIS requirements (5:21-7.8.4.ii.(6)), the minimum elevation of the top of the settled embankment shall be one foot above the water surface in the infiltration basin, with the emergency spillway flowing at the design depth. The proposed infiltration basin emergency spillway is not in accordance and must be revised accordingly.

Response – The Stormwater Management Report has been revised.

28. The Applicant is proposing to meet the water quality peak reduction, water quality total suspended solids reduction, and groundwater recharge standard by using an infiltration rate of 2 in/hr. No backup infiltration testing is provided for the infiltration rate, and compliance with post-development stormwater management standards at 7:8 could not be verified.

Response – The Stormwater Management Report has been revised.

29. An Operation and Maintenance Manual, prepared in accordance with NJAC 7:8-5.8, shall be provided for the proposed stormwater BMPs.

Response – An Operation and Maintenance Manual is included..

30. The drainage report must be updated to include an inlet drainage area map and calculations for inlet drainage area peak flows.

Response – The Stormwater Management Report has been revised.

31. Inlet peak flow calculations must use the current NOAA rainfall intensities for the design storms that correctly reflect the project location.

Response – The Stormwater Management Report has been revised.

32. For inlet area peak flow calculations, Rational C Coefficients must be assigned using Table 7.1 from New Jersey Residential Site Improvements Standards (RSIS) NJAC 5.21-7.2.

Response – The Stormwater Management Report has been revised.

33. The site stormwater conveyance system must account for 100-year outflows from the upstream pond outfall or full flow capacity of 21" pond outfall pipe. Backup information for the flows used from upstream pond outfalls must be provided in the drainage report.

Response – The Stormwater Management Report has been revised.

34. A drainage utility easement must be provided for upstream flow going through the property. The utility easement should be 20' wide and the stormwater improvements should be installed a minimum of 10' off the property line in accordance with ordinance § 330-7.T.(10).

Response – The plans have been revised to show a 20 ft wide utility easement.

35. The applicant does not specify final maintenance responsibilities for the proposed infiltration basin on proposed lot 9. A Homeowner's Association referenced above should incorporate ownership and maintenance of the stormwater management infiltration basin.

Response – Note has been added on Sheet 5 Grading and Utility Note 12.

36. Outlet control structure information in the drainage report, plan sheet no.6, and detail sheet no. 10 do not match. The drainage report only has one 2.5" orifice, while plans and detail show an additional 1.75" weir. Outflow control structure plans and details must match the design presented in the drainage report. Elevations of all orifices, weirs, and grates must be provided in the outlet control structure construction detail.

Response – The Stormwater Management Report has been revised.

37. There is a Drywell detail shown on sheet no. 10. Please elaborate on where this is used or remove the detail from the plan set.

Response – The Drywell detail has been removed.

38. The applicant is proposing a 36" F.E.S. in the rear yard of Lot 6; the applicant's engineer should provide a rack providing lockable access so that the structure is not open to the public. FES#7 is noted to be installed at invert 162.45 (out). It appears the flow is 'in' and the note should be revised.

Response – The plans have been revised accordingly.

39. The noted length of the pipe run between FES #7 and Inlet #6 is illegible due to overlapping text. Plan revisions are required.

Response – The plans have been revised accordingly.

40. The applicant is proposing grass swales on sheet no. 6 between the roadway and sidewalk. It appears various conflicts will block same such as light poles and hydrants.

Response – The plans have been revised accordingly.

41. While the pipe run note indicates 0.50% slope for the pipe run between Inlet #E4 and Inlet #E5, the invert elevation of both structures is 170.90. Design revisions are required.

Response – The plans have been revised accordingly.

42. The applicant is proposing a split rail fence around the infiltration basin. An access gate is required.

Response – The plans have been revised accordingly.

43. The applicant's engineer should review the pipe run and slope against the invert elevations to verify all correspond when calculated; i.e., the pipe run between Inlet #5 and Inlet #4 calculates to a slope of 1.90% instead of the 2.00% slope listed.

Response – The plans have been revised accordingly.

44. Clearly identify the limits of the proposed clay core on the grading and utility plan.

Response – The plans have been revised accordingly.

G. SUBDIVISION PLAN REVIEW (SHEET NO.4 OF 12 OF THE SITE PLAN)

1. Cleanup overwriting text.

Response – The plans have been revised accordingly.

2. Road A is proposed to be a private street and shall be labeled as such on the map

Response – General Note 8 has been added to Sheet 4.

3. Provide a lot data table for all existing and proposed lots.

Response – The plans have been revised accordingly.

4. Proposed lot numbering shall be as follows:

*Remainder of Block 20.01 , Lot 16.01 becomes Block 11 .06, Lot 27

<u>Subdivision Lot</u>	<u>Assigned Lot Number</u>
1	28
2	29
3	30
4	31
5	32
6	33
7	34
8	35
9	36 infiltration basin lot with/or without private road
10	37 private road (if separate lot)

Response – The plans have been revised accordingly.

5. Access and utility easements, including the dimensions, of the entire private right-of-way shall be dedicated to the Franklin Township Water Department and all other public utilities.

Response – Noted.

6. A note shall be added to the plans stating that the Homeowners Association shall be responsible for the maintenance of all on-site stormwater, snow plowing, sidewalk, lighting, water, and roadway maintenance.

Response – Note has been added on Sheet 4 General Utility Notes 7.

7. Sight triangle easements are required, revise plan accordingly, and they are to be filed prior to perfecting the subdivision.

Response – Noted.

8. The lots at the intersection with Bunker Hill Road should have lot line curve returns. Revise plan accordingly.

Response – The plans have been revised accordingly.

H. MAJOR SUBDIVISION PLAN REVIEW

1. Applicant may propose a street name for "Road A" for approval by the Township 911 Coordinator or may chose a name from a preapproved list. The street name shall be added to the map prior to filing.

Response – Noted.

2. Road A is proposed to be a private street and shall be labeled as such on the map.

Response – The plans have been revised accordingly.

3. Provide a lot data table for all existing and proposed lots.

Response – The plans have been revised accordingly.

4. All existing structures shall be removed prior to the filing of the map.

Response – Noted

5. Encroachments from adjacent properties shall either be removed or easements granted.

Response – Noted

6. Proposed lot numbering shall be as follows:

*Remainder of Block 20.01 , Lot 16.01 becomes Block 11 .06, Lot 27

<u>Subdivision Lot</u>	<u>Assigned Lot Number</u>
1	28
2	29
3	30
4	31
5	32
6	33
7	34
8	35
9	36 infiltration basin lot with/or without private road
10	37 private road (if separate lot)

Response – The plans have been revised accordingly.

7. Access and utility easements the dimensions of the entire private right-of-way shall be dedicated to the Franklin Township Water Department and all other public utilities.

Response – Noted

8. A minimum of three (3) corners distributed around the tract and shall indicate the coordinate values

Response – To be addressed by the surveyor

9. All permanent easements shall be shown and dimensioned. Dimensions shall be shown on every easement on every lot. Remove shading from easements so that the dimensions will remain legible after copying.

Response – To be addressed by the surveyor

10. Show chord bearings, distances and delta angle for every curve segment along the proposed right-of-way line.

Response – To be addressed by the surveyor

11. All non-radial lines shall be labeled as such

Response – To be addressed by the surveyor

12. A note shall be added to the plan stating that the Homeowners Association shall be responsible for the maintenance of all on-site stormwater, snow plowing, sidewalk, water, lighting and roadway maintenance

Response – Note has been added on Sheet 4 General Note 7.

13. All outbound monuments shall be set prior to the filing of the map. Interior monuments may be bonded for setting at a later date.

Response – Noted.

14. Add the following names to the appropriate signature areas:

- o Planning Board Chairman - Michael J. Orsini
- o Planning Board Secretary - Christine Woodbury
- o Municipal Clerk - Ann Marie McCarthy
- o Municipal Engineer- Robert J. Russo, PE, PP, CME, Lic. No. 38966

Response – The plans have been revised accordingly.

15. Change the Municipal Engineer's acceptance verbiage to read, "I have carefully examined this map and to the best of my knowledge and belief find it conforms with the provisions of "the map filing law", resolution of approval and applicable municipal ordinances and requirements.

Response – To be addressed by the Surveyor.

16. Change the Township Clerk's street acceptance verbiage to read, "I hereby certify that the layout of all streets, avenues, roads, lanes, or alleys shown hereon have been approved by the Township of Franklin, however, this is not construed as an acceptance of the completed streets, avenues, roads, lanes, or alleys and does not obligate the municipality for said improvements or maintenance of same."

Response – To be addressed by the Surveyor.

17. Access and utility easement deeds with metes and bounds descriptions are required for review and approval prior to filing with the Somerset County Clerk's Office.

Response – Noted.

18. Access and utility easement deeds are required to be filed prior to perfecting the subdivision

Response – To be addressed by the Surveyor.

19. Sight triangle easements are required, revise plan accordingly, and they are to be filed prior to perfecting the subdivision.

Response – Noted.

20. The lots at the intersection with Bunker Hill Road should have lot line curve returns. Revise plan accordingly

Response – Noted.

I. MISCELLANEOUS

1. Revise/Add the following details based on Franklin Township standard details:

a. Add the following note on all of the detail sheets, "In case of discrepancy, Township Standard Details shall hold"

Response – The plans have been revised accordingly.

b. Revise the Rip-Rap Apron Conduit Outlet Protection detail so it is project specific;

c. Provide a Concrete Headwall Detail for pipe penetrations through proposed walls;

d. Unclear how the Typical Roadside Swale detail will function with the proposed Concrete Driveway Apron detail;

e. Remove the J-Eco curb piece from the Inlet Type B detail;

f. Revise the Inlet Types 'B' and 'E' detail to provide ladder rungs 12" o.c.i

g. Handicap Ramp detail;

h. Remove the Street Sign detail that is not in conformance with the Township standard;

i. Gate for the proposed split rail fence to provide access to the infiltration basin;

j. Township Vertical Granite Block Curb detail;

k. Township Drop Curb at Driveways detail;

l. Township Concrete Sidewalk detail - please note the concrete strength should be revised to 4,500 psi;

m. Township Restoration of Street Openings detail;

n. Township Utility Pipe Bedding detail;

o. Township Sign Posts detail;

p. Township Concrete Pipe Cradle detail;

q. All sanitary sewer details shall be submitted directly to the Franklin Township Sewerage Authority for review and approval - Comment Only

Should you have any questions or require any additional information, please feel free to contact me at 732-951-2385.

Very truly yours,

Accurate Engineering, PC

A handwritten signature in black ink, appearing to read "F. T. Antisell", written in a cursive style.

Frank T. Antisell, P.E., P.P.