

STONEFIELD

May 8, 2020

Rose Desena
West Orange Planning Board
66 Main Street
Room 214
West Orange, NJ 07052

**RE: Green Essex Partners Urban Renewal Entity, LLC
Proposed Multi-Family Residential Development
100-300 Executive Drive
Township of West Orange, Essex County, New Jersey**

Rose:

Stonefield Engineering & Design is pleased to submit documents to address the list of comments contained in the email from John Hess on April 16, 2020 as well as comments from the SPRAB meeting, as outlined on in the letter prepared by Paul Grygiel, dated April 15, 2020. Please find the following items enclosed for review:

ITEM DESCRIPTION	DATED	COPIES	PREPARED BY
Preliminary & Final Major Site Plans	05-08-2020	15	Stonefield Engineering & Design
Stormwater Management Report	05-08-2020	15	Stonefield Engineering & Design
Sustainability Memorandum	05-08-2020	15	Stonefield Engineering & Design
Truck Turning Exhibit	04-28-2020	15	Stonefield Engineering & Design
Radius Map	03-19-2020	15	Stonefield Engineering & Design
List of Required Approvals Statement	03-19-2020	15	Stonefield Engineering & Design
Report of Geotechnical Investigation	12-31-2019	1	JZN Engineering

The following is an itemized response to the comments from Paul Grygiel's letter dated April 15, 2020:

- 1. Sustainability: The Redevelopment Plan includes a number of requirements related to this topic, which appear to be addressed. While the architectural plans list several sustainable design techniques proposed in the project, it was suggested the applicant should provide a separate document describing its efforts.*

A Sustainability Memorandum has been included as part of this submission to summarize the sustainability elements of the project and compliance with redevelopment plan standards.

- 2. Pedestrian circulation: The Redevelopment Plan also has requirements for pedestrian connectivity within the development, as well as providing a connection to the Essex Green shopping center. The applicant is proposing sidewalks within its development as well as within the adjacent Township street, but is limited as to the extent of the improvements it can make. It was suggested the Township provide a crosswalk on Rooney Circle and the owner of the shopping center connect to it on its property.*

The applicant is providing new sidewalks throughout the site as well as along the property side of Executive Drive from the entrance to the parking garage at the rear of the property to its connection with Rooney Circle. The applicant agrees to work with the Township and the owner of the Essex Green shopping center for the creation of a crosswalk from the west side of Rooney Circle at Executive Drive to the east side of Rooney Circle in the area of Shoprite. The goal of such crosswalk is to provide for a pedestrian connection between the shopping center and the Executive Drive redevelopment consisting of the proposed residential development, dog park and 300 Executive Drive office building. Note that the applicant does not own the property on either side of Rooney Circle in the anticipated location of the crosswalk, so it can only use best efforts to achieve same. The sidewalks

and paths within the site also provide a pedestrian connection between all three residential buildings as well as a pedestrian connection to the proposed dog park.

3. *Shuttle service/jitney connection: A shuttle stop location has been proposed for the development as required by the Redevelopment Plan. The applicant should provide additional information about coordination with the Township's jitney service as well as its own shuttle proposal, as the Redevelopment Plan requires the redeveloper to "work with the Township to supplement or expand the Jitney service if necessary" and to provide "a shuttle from within the development to the Essex Green Bus Stop... to coordinate with the Jitney and to provide access to the shopping center and bus at the other times of the day."*

The applicant is providing space at the main entrance to Building A (main residential building) for jitney/shuttle drop-off/pick-up. The applicant shall work with the Township to supplement or expand the jitney service if necessary, based on demand. A private shuttle may be provided from within the development to the Essex Green bus stop, local train stations and the Essex Green Shopping Center based on demand.

4. *Automobile and truck circulation: It was noted there are some pinch points in the parking lots and potential shortages of parking spots in certain areas. The applicant indicated the proposal meets the applicable parking requirements, but is limited where parking can be provided due to topography and other constraints. The applicant was also asked to provide emergency vehicle and truck turning templates.*

The overall project meets the parking requirements as outlined by the Redevelopment Plan and RSIS. Buildings B and C comprise of 121 units and there are 171 parking spaces within the nearby vicinity and 42 garage spaces. The unit to parking ratio is therefore 1.76, which the project team believes is more than adequate per industry standards. Further testimony can be provided to address this concern, if needed. A Truck Turning Exhibit has been included in the submission to address emergency vehicle and truck turning template concerns.

5. *Architectural plans: Questions were raised regarding 39 proposed units that include two bedrooms plus a den, and specifically whether they could be converted to three-bedroom units. The applicant was asked to show the layouts of these units to ensure they cannot be easily modified. The applicant indicated this issue would be covered by the tenant leases, which would assist with enforcement of future potential violations. The applicant was also reminded all submitted plans should be signed and sealed and comply with all licensing requirements.*

Acknowledged.

6. *Site plan: There are some missing details on the plans. The Board Engineer will contact the applicant's engineer directly to request specific information.*

Missing details have been added to the plans per the Board Engineer's comments.

7. *Tree removal: The applicant has not yet submitted a tree removal permit but indicated it will be submitted shortly. This plan should include the type, caliper, and condition of trees.*

A Tree Removal Plan with the above information has been included in the site plans on Sheet C-20.

8. *Buffer area along southern property line: The Redevelopment Plan includes the following requirement on page 20, which has not been addressed: "A 15 foot buffer area consisting of a mix of deciduous and evergreen plantings and a six (6') foot tall solid fence shall be provided along the property line adjacent to Block 155, Lot 26.01." The applicant must either comply with this requirement or request a variance.*

The plans have been updated to comply with the 15-foot buffer requirement from page 20 of the Redevelopment Plan.

9. *Pond: Some questions were asked about the existing pond and its future use. The applicant should provide testimony regarding its future usage and maintenance.*

Testimony will be provided regarding the future usage and maintenance of the existing pond.

10. *Dog park: A dog park is proposed and will be dedicated to the Township as required by the Redevelopment Plan.*

Acknowledged.

The following is an itemized response to the comments from John Hess via email on April 16, 2020:

1. *The tax map sheet must be included in the title block.*

The tax map sheet has been added to the title block and cover sheet.

2. *All existing street, water courses, flood plains, wetlands or other environmentally sensitive areas within 200 ft of site must be shown on the plans.*

A waiver is requested for not providing all existing streets, water courses, flood plains, wetlands, or other environmentally sensitive areas within 200 ft of the site. The justification for the waiver is that the project site area is well within the property limits and there will be no off-site drainage tributary to the project site area.

3. *Existing right-of-way and/or easements within 200 ft of tract must be shown on the plans.*

A waiver is requested for not providing right-of-way and/or easements within 200 ft of the site. The justification for the waiver is that the project site area is well within the property limits and it is not anticipated that there could be any impacts as a result of easements and/or rights-of-way within 200 ft.

4. *Existing and/or proposed contours extending at least 200 ft beyond subject property must be shown on the plans.*

A waiver is requested for not providing existing and/or proposed contours within 200 ft of the site. The justification for the waiver is that the project site area is well within the property limits and there will be no off-site drainage tributary to the project site area.

5. *The proposed utility infrastructure plans must show the proposed telephone and cable TV.*

The proposed telephone and cable TV wires are included on the plan and are labeled as E/T/C on the Utility Plan, Sheet C-12.

6. *Sheet 1 of the site plan drawings lists a Geotechnical Investigation Report prepared by JZN Engineering dated December 31, 2019. Copies of this report must be submitted to the Planning Board and our office.*

The Geotechnical Investigation Report has been included as part of this submission.

7. *Details of the proposed dog park design must be added to the plans.*

Details of the dog park have been added to the Site Plan and Construction Details. A K9 Grass system is proposed. Other features include benches and dog waste stations.

8. *It stipulates in the Essex Green Executive Drive Redevelopment Plan that a 15 foot buffer area consisting of a mix of deciduous and evergreen plantings and a six (6) foot tall solid fence shall be provided along the property line adjacent to Block 155, Lot 26.01. Therefore, the plans must be revised to provide the required fence.*

A 6 FT high chain link fence has been proposed along the property line adjacent to Block 155, Lot 26.01. Refer to the Site Plan, Sheet C-6.

9. *Based on our calculations, 234 parking spaces are required for Buildings B & C whereas only 213 parking spaces are provided in the vicinity of these buildings. The Applicant should address the feasibility of revising the parking layout to provide additional parking near Buildings B & C.*

The overall project meets the parking requirements as outlined by the Redevelopment Plan and RSIS. Buildings B and C comprise of 121 units and there are 171 parking spaces within the nearby vicinity and 42 garage spaces. The unit to parking ratio is therefore 1.76, which the project team believes is more than adequate per industry standards. Further testimony can be provided to address this concern, if needed.

10. *The Applicant should submit turning movement plans to demonstrate that adequate circulation will be provided for delivery trucks, garbage trucks, and emergency vehicles.*

A Truck Turning Exhibit has been included as part of this submission.

11. *The Approval Block on Sheet C-1 must be revised to reference the West Orange Township Planning Board, not the Zoning Board.*

The Approval Block on Sheet C-1 has been revised accordingly.

12. *It states on sheet C-4 that Executive Drive is to be repaved. Therefore, the plans should specify the work that is proposed.*

The Site Plans have been updated to delineate areas of mill and overlay in comparison to full depth asphalt.

13. *It states on sheet C-4 that the parking garage will contain 570 parking spaces. However, it states on sheet C-6 that the parking garage will contain only 566 parking spaces. This discrepancy must be resolved.*

Sheet C-6 has been updated to reflect the correct amount of parking spaces (570).

14. *It shows on sheet C-5 that flush curb is proposed around the landscape island at the northerly ends of the parking lots adjacent to Buildings B & C. The Applicant should clarify why flush curb is required at these locations.*

Flush curb is proposed at these locations to allow for stormwater runoff flow from the northerly end of the parking lot to reach the proposed bioretention area.

15. *It shows on sheet C-5 that offsets are proposed in the façade of Buildings B and C where the garage parking spaces are proposed. The plan must be revised to dimension the depths of the parking spaces in front of the garages where the façade projection is the greatest to demonstrate that the parking space in front of each garage will be at least 18 ft deep as required by the RSIS.*

The depths of the parking spaces have been labeled to show they meet the minimum depth of 18 ft as required by RSIS.

16. *Sheet C-5 shows that a different type of parking space delineation is proposed for the parking spaces in front of the garages in Buildings B and C. The plans should be revised to include a detail of the proposed parking space delineation at these locations.*

An additional detail for the alternative parking space striping has been added to the plans. Refer to Sheet C-21.

17. *It shows on sheet C-5 that several of the drive aisles within the dog park parking lot will be 23 ft wide whereas a minimum drive aisle width of 24 ft is required. The plans should be revised to provide the required drive aisle width.*

The drive aisles within the dog park parking lot have been adjusted so that a minimum width of 24 ft is provided.

18. It shows on sheet C-5 that bioretention areas are proposed in the landscape islands within the parking lots adjacent to Buildings B & C. Details of the proposed bioretention areas must be added to the plans.

Details for the bioretention areas have been added to the plans. Refer to Sheet C-24.

19. It shows on sheet C-5 that flush curb is proposed at the head of the parking spaces abutting the bioretention areas. The applicant should address the Board regarding their plans to prevent vehicles from driving onto the bioretention areas. Consideration should be given to the installation of either wheel stops or vertical curbing with periodic openings to allow stormwater to flow into the bioretention area.

Wheel stops have been proposed within these areas and a wheel stop detail has been added to the plans.

20. Section 25.12.4b.4 in the Land Use Regulations stipulates that "Interior roadways or access drives leading to off-street parking facilities in multiple family developments shall be designated fire lanes and no parking allows". Sheets C-4 through C-6 must be revised to show the required fire lane markings.

Our office is in contact with the West Orange Fire Department and will include relevant information on a later iteration of the plans.

21. It shows on sheets C-5 and C-6 that chain link fence is proposed along the easterly sides of Buildings A & C. The Design Standards on page 29 of the Essex Green Executive Drive Redevelopment Plan state that "Chain link fence, barbed wire, razor wire, and electrical wire fence shall be prohibited". Therefore, the plans should be revised to specify a different type of fence.

We are requesting a waiver for proposing chain link fence. Testimony will be provided regarding the justification.

22. Sheets C-5 and C-6 must be revised to show the radius of all proposed curved curbing.

The plans have been revised to show the radius of all proposed curved curbing.

23. Sheets C-5 and C-6 must be revised to dimension the widths of the various sidewalks that are proposed.

The plans have been revised to show the dimension of the widths of the various sidewalks that are proposed.

24. It shows on sheet C-6 that two (2) rain gardens are proposed in front of Building A. Details of the proposed rain gardens must be added to the plans.

Raingarden details have been added to the plans.

25. It shows on sheet C-6 that a mountable brick paver island is proposed adjacent to Building A. A detail of the mountable brick paver island must be added to the plans.

A mountable brick paver island detail has been added to the plans. Refer to Sheet C-21.

26. Sheet C-6 shows a proposed pool and amenity area adjacent to Building B. In addition, it also shows outdoor seating areas and benches at various locations. Details of the various amenities that are proposed must be added to the plans.

Details for the amenity area have been added to the plans. Refer to Sheet C-22.

27. It shows on sheets C-5 and C-6 that retaining walls are proposed at various locations throughout the site. Therefore, details of the proposed retaining walls must be added to the plans.

A detail for the retaining walls has been added to the plans. Refer to Sheet C-22.

28. *It shows on sheets C-5 and C-6 that guiderails are proposed at several locations between the proposed retaining walls and the drive aisles. Therefore, a guide rail must be added to the plans.*

A guiderail detail has been added to the plans. Refer to Sheet C-21.

29. *Sheet C-7 must be revised to provide additional top of wall elevations along the various retaining walls that are proposed. For example, only bottom of wall elevations are shown for the retaining wall on the easterly side of Building C.*

Additional top of wall elevation spot shots along the proposed retaining walls have been added to the plans.

30. *Sheet C-8 must be revised to provide additional top of wall and bottom of wall elevations along the retaining wall on the westerly side of the access drive between Building A and Building B.*

Additional top of wall elevation spot shots along the proposed retaining walls have been added to the plans.

31. *Sheet C-8 must be revised to show the proposed grading within the Building A courtyard containing the pool and the amenities area.*

Spot shots have been provided within the Building A courtyard.

32. *Sheet C-8 must be revised to provide additional grading information (i.e. spot grades) adjacent to Building A in the vicinity of the rain garden and the mountable brick paver island.*

Additional spot shots have been provided within the areas adjacent to Building A.

33. *Sheet C-10 shows proposed stormwater outfall OUT 1. Therefore, a detail of this outfall must be added to the plans.*

A detail of the outfall has been added to the plans. Refer to Sheet C-24.

34. *Sheet C-10 shows a proposed culvert beneath the bridge along the access aisle between Building A and Building B. Details of the culvert and the bridge must be provided on the plans. In addition, culvert design calculations must be included in the Stormwater Management Report.*

The ConSpan O-Series by Contech is proposed for the bridge. Details have been added to the plans accordingly. Full engineered construction documents for the bridge will be provided to the Township prior to construction.

35. *It shows on sheet C-12 that the sanitary sewer serving the site will be connected to the existing sewer main at proposed MH D-101. The Applicant must clarify if a doghouse manhole is required at this location. If so, then a doghouse manhole detail must be added to the plans.*

As the existing sanitary line will be removed up to the proposed tie in location and there will be only one direction of flow, a doghouse manhole will not be required.

36. *The sizes of all proposed water mains and fire mains must be called out on sheet C-12.*

The proposed water and fire mains have been called out to be 8" in diameter with 6" connections to proposed buildings and fire hydrants.

37. *The size of the proposed water and fire connections to each building must be called out on sheet C-12.*

The size of the proposed water and fire connections to each building have been called out to be 6" in diameter.

38. *The Water Connection Detail on sheet C-22 shows a standard residential connection which does not appear to be applicable to this project.*

Our office is working with New Jersey American Water and will provide the required detail on a later iteration of the plans.

39. *The Fire Hydrant Installation detail on sheet C-22 must be revised to specify the model number and manufacturer of the proposed fire hydrant.*

Our office is in contact with the West Orange Fire Department and will include relevant information on a later iteration of the plans.

40. *The Fire Hydrant Installation detail on sheet C-22 shows that a tapping sleeve is required to connect the fire hydrant to an existing water main. However, the plans show that the fire hydrants will be connected to new water mains. Therefore, the detail must be revised accordingly.*

The Fire Hydrant Installation detail has been revised accordingly.

41. *It shows on sheet C-13 that two (2) H910 light fixtures are proposed on the easterly side of Building C. Since there are no walkways on the easterly side of this building, the Applicant should clarify why these light fixtures are required.*

As there is a pathway behind Building C, lighting is proposed within this area for safety purposes.

42. *The Accessible Parking Sign with Bollard Detail on sheet C-20 includes a callout which states "Van Accessible Sign (R7-8P) where indicated on plans." Therefore, the plans must be revised to identify where the van accessible parking spaces are proposed.*

The plans have been updated to identify where the Van Accessible Sign is located. Refer to sheets C-5 and C-6.

43. *The Proposed Luminaire Schedule on sheet C-21 shows that Luminaire G will be Marina Mini-CNMI IPI-GCPO-5-35W-4K.IES fixtures. However, the Proposed LED Area Light (Luminaires G) detail in sheet C-21 specifies CN12PIA/CN12PIB fixtures. This discrepancy must be resolved.*

The detail on sheet C-23 has been updated to reflect the proper luminaire used as specified on sheet C-13.

44. *Sheet C-22 includes a Bollard Detail. Therefore, the plans must be revised to show the locations where bollards are proposed.*

The plans have been updated to remove the bollard detail, as no bollards are proposed.

45. *The Design Standards on page 30 of the Essex Green – Executive Drive Redevelopment Plan state that "Best management practices are encouraged to reduce stormwater runoff and improve groundwater recharge". The Stormwater Management Report must be revised to address the best management practices that have been incorporated into the design of the project.*

A Sustainability Memorandum has been prepared to address Best Management Practices, specific to stormwater management. The Memorandum has been included as part of this submission.

46. *The Stormwater Management Report shows that the stormwater runoff from the site was calculated using the TR-20 method with a minimum time of concentration of 10 minutes. We note that a minimum time of concentration of 6 minutes (0.1 hrs) should be used with the NRCS method. Therefore, the calculations must be revised accordingly.*

Although 6 minutes is typical for the NRCS method, RSIS and NJDEP suggest a minimum time of concentration of 10 minutes, which we believe is typical for projects of this scope in New Jersey.

47. *It states on page 8 of the Stormwater Management Report that the on-site stormwater conveyance system has been sized for the 25 year storm event. Therefore, a copy of the pipe design calculations sheets must be submitted to the board.*

The pipe design calculations have been included in the updated Stormwater Management Report, enclosed with this submission.

48. *The elevations shown on the Summary for Pond B-1A: Subsurface Detention Basin in the Stormwater Management Report do not agree with the elevations shown on sheet C-10 for OS-4. These discrepancies must be resolved.*

The detail has been updated accordingly.

49. *The elevations shown on the Summary for Pond B-1B: Subsurface Detention Basin in the Stormwater Management Report do not agree with the elevations shown on sheet C-10 for OS-1. These discrepancies must be resolved.*

The detail has been updated accordingly.

50. *The elevations, pipe sizes and orifice information shown on the Outlet Structure (OS-1) Detail on sheet C-23 do not agree with the elevations shown on sheet C-10. These discrepancies must be resolved.*

The detail has been updated accordingly.

51. *The elevations, pipe sizes, and orifice information shown on the Outlet Structure (OS-1) Detail on sheet C-23 do not agree with the elevations shown on sheet C-10. These discrepancies must be resolved.*

The detail has been updated accordingly.

52. *Sheet C-24 includes details of Underground Basins B-1A, B-1B, B-2A. The details must be revised to show the seasonal high water table elevation beneath each basin.*

Per the Geotech Report prepared by JZN Engineering, groundwater was not encountered. A note has been added to the details on the plans and report has been included as part of this submission.

53. *It shows on the Underground Basin (B-1A) detail on sheet C-24 that the bottom of the stone will be at elevation 492.00 (lowest grade). However, it shows on sheet C-10 that the basin bottom will be at elevation 494.00. This discrepancy must be resolved.*

The bottom of the basin filter fabric encasement is set 1 FT below the invert elevation of the basin. The details have been updated accordingly to show while the basin invert is 493.00 the encasement lowest elevation is 492.00.

54. *It shows on the Underground Basin (B-2A) detail on sheet C-24 that the bottom of the stone will be at elevation 498.00 (lowest grade). However, it shows on sheet C-9 that the basin bottom will be at elevation 499.00. This discrepancy must be provided.*

The bottom of the basin filter fabric encasement is set 1 FT below the invert elevation of the basin. The details have been updated accordingly to show while the basin invert is 499.00 the encasement lowest elevation is 498.00.

55. *Sheet C-24 includes details of Outlet Structures OS-4 and OS-5. The details show that a trash rack is proposed in each outlet structure. Therefore, a trash rack detail must be added to the plans. In addition, trash rack velocity calculations must be provided.*

The trash rack detail has been added to the plans. Velocity calculations will be provided in a later iteration of the plan set.

56. *The plans must be revised to includes details of Outlet Structures OS-2 and OS-3.*

Details of the proposed outlet structures OS-2 and OS-3 have been added to the plans.

57. As stipulated in Section 25-28.7 of the Land Use Regulations, sheet C-26 must be revised to address the following:
- Provide a calculation in square footage and acres the amount of area in each of the slope categories.
 - Superimpose all existing trees as defined under the tree ordinance and mark the trees to be removed.

The Steep Slopes Plan has been updated to include the requested calculations. A Tree Removal Plan has been prepared and is included the updated plan set.

58. As stipulated in Section 25-28.7 of the Land Use Regulations, sheet C-27 must be revised to address the following:
- Identify the soil types with specific reference to highly erodible soils as identified by the United States Department of Agriculture Soil Conservation Service or other recognized authority.
 - Erosion potential of exposed soils
 - Length, steepness, and surface roughness of exposed slopes.
 - Resistance of soil to compaction and stability of soil aggregates.
 - High water table, water infiltration capacity and capacity of soil profile.

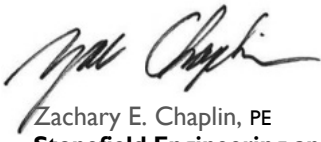
A table has been added to the Soil Erosion and Sediment Control Plan to list these items.

59. The Applicant must demonstrate compliance with the limitations on Development in Steep Slope Areas set forth in Section 25-28.8 of the Land Use Regulations.

As per the Steep Slopes Section within Redevelopment Plan (page 11), "Future Applications for site plan approval will be required to quantify the steeply slopes areas on site, indicate if disturbance is proposed, and attempt to limit and mitigate the impacts of any disturbance that is deemed necessary." The plans have been updated to quantify the steep slopes disturbance. It is our belief that the development limits disturbance within steep slopes and environmentally sensitive areas as much as feasible, while providing a safe and effective layout. Refer to the Sustainability Memorandum prepared by our office for further justification.

Should you have any questions, please do not hesitate to contact our office.

Best regards,



Zachary E. Chaplin, PE
Stonefield Engineering and Design

Sent via FedEx to Addressee

cc: John Hess, PE, PP, CME – CME Associates (w/ enclosures)
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