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March 4, 2020

**City of Elizabeth  
Zoning Board**  
50 Winfield Scott Plaza  
Elizabeth, NJ 07201

**RE: Spring Street Development Corp.  
Review Report Responses  
Application No. Z-05-19  
703-727 Spring Street  
Jarmel Kizel Project Number: SSD-S-17-109**

Dear Chairman and members of the Board:

The following details our responses to City of Elizabeth Division of Engineering review comments dated October 1, 2019 and Harbor Consultants review letters dated October 9, 2019. For ease of review, each comment is repeated in *italics* and our responses are in **bold**. In addition, because this submission is a coordinated effort between Jarmel Kizel Architects and Engineers Inc., Frey Engineering, LLC and The ELM Group, Inc., responses to comments as provided by Frey/ELM have been denoted as such.

**Planning Review: Harbor Consultants Letter dated October 9, 2019**

**General Comments**

1. *The applicant shall provide testimony in support of each variance being requested.*

**Response: Testimony will be provided.**

2. *The Applicant shall provide testimony as to the operation of the proposed facility, including hours of operation, number of employees, etc.*

**Response: Testimony will be provided.**

3. A survey prepared by a licensed land surveyor shall be provided.

**Response: An updated survey has been prepared and is included with this submission.**

4. Landscaping is proposed consisting of 22 Aborvitae evergreens and 8 Boxwood shrubs. Additional landscaping should be provided.

5. **Response: Additional screening is being provided on the neighboring North Avenue parcel where it can serve as a more**

visible screening. In addition, 25 evergreen plantings are proposed along the northern property line between the two (2) lots. *Any new signage shall comply with the City Code or the Applicant will be required to return to the Board for additional variances.*

**Response: Understood. No signage is proposed under this application.**

6. The purpose of the river stone along the perimeter of the parking area shall be clarified.

**Response: The purpose is to provide a small pervious area to the site that would be relatively maintenance free and break up the pavement. It is our view that providing the perimeter landscaping along the North Avenue lot would better serve the overall area.**

7. *The Remedial Capping Plan indicates areas of concern (AOC), containing Chromium and PCB's. The remedial work will be performed under the direction of an LSRP in accordance with NJDEP rules and regulations.*

**Response by Frey Engineering LLC (Frey) / The ELM Group, Inc. (ELM): Work is ongoing under the direction of an LSRP. The LSRP provided testimony at the November 14, 2019 meeting.**

8. *The existing building is in poor condition. It is recommended that the Applicant propose repairs and alterations to make the building more aesthetically pleasing.*

**Response: Applicant does not propose repairs or alterations to the existing buildings at the site because such buildings are outdated and require total replacement. As an alternative to the site plan submitted, the Applicant would propose to demolish the majority of the existing buildings at the site to improve aesthetics.**

9. *See attached memorandum prepared by HCI, dated 9/5/19 for stormwater management comments.*

**Response: Responses provided under the HCI response section of this letter.**

10. *A stormwater management plan and lighting plan is required for Lot 1299.A*

**Response: A Lighting Plan has been prepared for Lot 1299.A and is included with the revised plan set. Stormwater management has also been addressed on this lot. A separate storm report has been submitted. Lot 1299.A drains to a completely different drainage system than lot 1699.D making this reasonable. In addition, there are legal parameters with respect to the capping of Lot 1699.D that make submitting two (2) separate reports necessary.**

11. *See attached letter from Hamal Associates, dated October 8, 2019, for traffic comments. Comments provided raise concerns that the proposed project will have a negative impact on the unbounding area. Based on our inspection of the site, there are a large number of cargo vans that are parked in an unorganized configuration.*  
**Response: The Applicant's traffic expert will provide testimony relative to traffic impact.**
  
12. *Parking is based on lot area in the MRC Zone, however in the case of a use variance request the Applicant must provide sufficient proof that adequate parking is being provided. The number of vans to be parked on the site has not been provided, therefore it is not possible to determine if sufficient parking will be available for the building occupants.*  
**Response: The Applicant's traffic expert will provide testimony with regard to parking.**
  
13. *The site shall meet the requirements of the American with Disabilities Act and the New Jersey Barrier Free Code.*  
**Response: The site will provide the required number of ADA spaces and an ADA accessible route to the main building.**
  
14. *The Applicant shall comply with all directives of the City of Elizabeth Fire Official.*  
**Response: The Applicant will comply to the extent feasible and as applicable to this application.**
  
15. *The Applicant shall comply with the comments of the City Engineer, dated 5/13/19 and 10/01/19.*  
**Response: The Applicant will comply with the comments to the extent agreed upon as we work through the approval process.**
  
16. *The applicant shall file with the Board and Construction Official copies of all necessary agency approvals other than municipal agencies having land use jurisdiction over the application.*  
**Response: The Applicant will comply. At this time, no other land use approvals are believed to be required.**
  
17. *Prior to issuance of building permits, compliance with all conditions of approval indicated in the resolution shall be verified by the Board Engineer.*  
**Response: The Applicant understands and acknowledges this condition.**

18. *Subsequent to resolution compliance, an electronic copy of the approved drawings shall be provided to the Board Engineer. The file format may be AutoCAD, PDF, JPEG, or TIF.*

**Response: The Applicant will comply.**

19. *The Applicant shall arrange a pre-construction meeting with the Board Engineer and Construction Official at least one week prior to start of construction.*

**Response: The Applicant will comply.**

20. *An engineer's estimate for site improvements must be submitted prior to signature by the Board Chairperson.*

**Response: The Applicant will comply.**

21. *The Applicant must post performance guarantees and inspection fees with the City of Elizabeth prior to beginning of any on-site construction activities.*

**Response: The Applicant will comply.**

#### **Engineering Review: Harbor Consultants Letter dated October 9, 2019**

1. *Section II.b. - Preliminary Site Investigation of the Stormwater Management report, refers to a topographic survey provided by Barry Isett and Associates, dated June 2015 that has not been submitted. Copy of the survey should be provided.*

**Response by Frey/(ELM): SSDC retained Barry Isett and Associates, Inc. to prepare an updated Boundary Survey Plan and Topographic Survey of the 703-727 Spring Street property, Block 8, Lot 1699D (the "Site") and surrounding properties, revised 1/28/2020. The updated survey information is being used on the plan for stormwater analyses and is included with this submission.**

2. *Section II.f. - Preliminary Site Investigation of the Stormwater Management report indicates that the current revisions are based upon a compilation of revisions from the SSDC Consultants, dated 11/30/18. However, these revisions have not been submitted. The compilation of revisions should be provided.*

**Response by Frey/ELM: As requested, the stormwater management system has been coordinated by SSDC with Jarmel-Kizel plans. This letter shall serve as the summary of all revisions made to the drawings submitted with this correspondence.**

3. *A boundary and topographic survey reflecting the current site conditions should be submitted.*

**Response by Frey/ELM:** As noted in #1 above an updated survey has been provided by SSDC and is included with this submission.

4. *The inlets and manholes located along the south property line should include the storm sewer pipes.*

**Response by Frey/ELM:** The updated survey information provided by SSDC has been incorporated into the stormwater management system and reports.

5. *All storm sewer pipes, materials, sizes, inverts, lengths and slopes should be shown for both the existing and proposed storm sewer system, including the offsite drainage system. The grading & drainage plan, and the existing conditions plan should be revised accordingly.*

**Response by Frey/ELM:** The information requested has been added to the plans. The updated survey information provided by SSDC has been incorporated into the stormwater management system and reports.

6. *Based on the information provided in the stormwater management report, runoff from most of the site is tributary to the drainage system on Woodruff Lane. The existing conditions plan, and the grading & drainage plan should be expanded to include Woodruff Lane and all relevant information.*

**Response by Frey/ELM:** The HUC 14 Sub-watersheds for Newark were reviewed and the plans have been revised accordingly. The updated topographic survey information provided by ISETT is also being used, which provides the requested information on Lot 1699.D and across the adjacent Lot 1699.B to the south through to Woodruff Lane.

7. *No information has been provided for the existing drainage system downstream of proposed discharge points. The offsite downstream drainage systems should be added to the existing conditions and grading & drainage plans. All existing and proposed underground utilities and drainage system on Spring Street, Woodruff Lane and on site should be clearly shown on plans.*

**Response by Frey/ELM:** The stormwater plans show requested information for Woodruff Lane and adjacent Lot 1699.B from the ISETT survey and the MS4 mapping conducted by Mott McDonald for the City and posted on the City's GIS website.

8. *The drainage report incorrectly combines the peak runoff rates for the different discharge points. In order to demonstrate compliance with the stormwater quantity control requirements at N.J.A.C 7:8-5, the applicant must demonstrate that the*

*requirements are met separately for each discharge point. The calculations should be revised accordingly.*

**Response by Frey/ELM:** The revised plans show existing and proposed discharge points, in order to conform as closely as possible with the HUC 14 Sub-watersheds. The updated survey provided information on adjoining Spring Street Plaza, Lot 1699.C to the west of the Site that does not exactly conform to the published sub watershed mapping. In addition, it was found that storm water drainage from this lot is tied into Lot 1699.D site drainage.

9. *The required peak flow reductions should be based on the allowable peak flows from the predevelopment calculations. Table 5 and the calculations should be revised accordingly.*

**Response by Frey/ELM:** The revised report will be issued with updated tables. The updated survey and jet-vac cleaning and video work conducted by Public Sewer Service for SSDC revealed that there is a section of 8" clay pipe along the 12" PVC pipe run draining through the adjoining Lot 1699.B to Woodruff Lane. This condition further restricts the existing discharge capacity for both the 1699.D and Lot 1699.C to Woodruff lane in the existing conditions. Discussion with the City Engineer, prior to the first hearing led to an agreement to allow use of 12" piping for discharge to Woodruff Lane. This change will be reflected in the report and plans. With the existing undersized piping on and off site, a majority of pre-existing flows for Lot 1699.D and Lot 1699.C overflow the system beyond the 10-year event. Once the system is full, there are surface flows on the parking lot over to the southeast corner of Lot 1699.D and across the adjoining Lot 1699.B to Woodruff Lane.

10. *The storm drainage calculations for the 2, 10, 25 and 100-year storms should be based on the rainfall amounts of 3.39, 5.17, 6.42 and 8.69 as per the latest New Jersey 24 hours rainfall frequency data from NRCS. The calculations should be revised accordingly.*

**Response by Frey/ELM:** The rainfall events have been updated.

11. *The existing site coverage conditions Table should be added to the stormwater management report. Only the proposed site coverage conditions (table 4) has been provided.*

**Response by Frey/ELM:** The tables have updated accordingly.

12. *Spot elevations should be added within the existing barrier located near the north*

*property line to verify drainage areas OS-2 and E-4.*

**Response by Frey/ELM: The updated survey has provided what we believe is adequate information for review.**

13. *The conditions of the existing PVC drainage pipes are unknown. The 'n' value used for the existing pipe listing shown on page 5 of the Hydro CAD report should be 0.013.*

**Response by Frey/ELM: With the completion of the survey updates and storm system jet-vac and video work a majority of the systems has been analyzed. All existing piping use  $n = 0.013$ .**

14. *A Manning's roughness coefficient 'n' of 0.012 should be used for all proposed HDPE pipes. The stormwater calculations should be revised accordingly. Partially addressed. The use of 0.013 is acceptable, however 0.010 has also been utilized. The calculation should be revise accordingly.*

**Response by Frey/ELM: All piping for the proposed conditions has been changed to  $n = 0.012$ , except for the existing pipes from Lot 1699.C (Spring Street Plaza) through Lot 1699.D (the Site) in the south alley. This piping continues to use  $n = 0.013$ .**

15. *The Hydro CAD diagrams for the existing and proposed pipe listing should be added to the stormwater management report.*

**Response by Frey/ELM: The piping tables have been added to the site plans and in the report.**

16. *The drainage calculations should be revised to include a diagram or plan showing the tributary drainage areas to each pond. The ponds should also be included. All existing and proposed routing diagrams should be added to the stormwater management report.*

**Response by Frey/ELM: The existing drainage area map makes use of the current aerial photos that show the portions of the building that have been removed by SSDC. The proposed conditions mapping includes the layout as shown on the site plans.**

17. *Additional spot elevations and contours should be provided offsite around the site to properly evaluate the existing and proposed discharge points of analysis.*

**Response by Frey/ELM: As noted previously, numerous additional spot elevations have been surveyed by ISETT and added to the plans.**

18. *The minimum time of concentration used in the hydrograph calculations should be 10 minutes.*

**Response by Frey/ELM:** Each section of the report has a drainage diagram for that section. To augment the report, D-size copies of the pre and post conditions maps with HydroCAD node locations are provided with the stormwater report.

19. *All water quality peak flows calculations are 0.00 cfs. The NJDEP cumulative and incremental rainfall distribution for the water quality storm should be used. The water quality rainfall distribution should be added to the report.*

**Response by Frey/ELM:** The necessary adjustments have been made.

20. *The required TSS removal rate should be included in the drainage calculations.*

**Response by Frey/ELM:** With the applicant's decision to increase the pervious areas on the parking lot, we have worked with Jarmel-Kizel and have incorporated Geopave structures to provide pervious paving in specific locations of the parking lot toward achieving required TSS removal. TSS is being handled through the NJDEP BMP 9.7 Pervious Pavement alternative. The depth of material for TSS treatment is a minimum of 2.5 feet of acceptable materials. Due to the site not being acceptable for sub surface infiltration, the Geopave beds and Retainit structures are proposed to be lined with 30 mil impermeable liners.

21. *Existing and proposed land cover drainage area maps should be added to the stormwater management report. The maps should clearly delineate the impervious and pervious areas.*

**Response by Frey/ELM:** As noted in #18 above, full D size maps will be included in the site plans as appendices in the stormwater report.

22. *The drainage area OS-4 shown on the drainage report doesn't match with the drainage area on the pre-drainage area map. The drainage calculations and drainage plan should be revised accordingly.*

**Response by Frey/ELM:** The necessary adjustments have been made.

23. *Based on the information shown on the existing conditions plan, it appears that portion of existing drainage area 0-3 is tributary to drainage area E-6. Additional spot elevations should be added in order to verify the drainage areas limits.*

**Response by Frey/ELM:** As noted previously, numerous additional spot elevations have been surveyed by ISETT and used in the analysis.

24. *Clarify why the existing storm sewer pipes and structures have been used as detention basins in the hydrologic calculations. Additional clarification is required.*

**Response by Frey/ELM:** The existing piping on the north side of the site will be abandoned in place or removed when the new piping is installed, and are not being used in the proposed calculations. In the south alley the pre and post conditions from the adjoining commercial lot (Spring Street Plaza, Lot 1699.C) are not being changed and the existing piping will not be altered.

25. *The peak flows for the 25-year storm conduits calculations should be provided using the Rational Method. In addition, a report should be added in DOT format (inv., elev., depth of flow, HGL, EGL, design velocity, cover, etc.) by using hydrograph software or equivalent. The report should also include the pipe profiles with the EGL & HGL shown.*

**Response by Frey/ELM:** The 25-year event continues to be provided through HydroCAD. In the existing conditions the existing piping is too small to handle the flows and surface flows on the parking lots occur on 1699.C and 1699.D. In the proposed conditions the onsite 25-year flow is contained within the piping, in part due to replacing the 8" Clay exiting the Site in the southeast corner with 12" PVC, and the restricted flows from the Retainit structures.

26. *The inlet drainage plan should be added to the drainage report.*

**Response by Frey/ELM:** All inlets and structures for the site are shown on the plans.

27. *The pre-development and post-development drainage areas plans should clearly delineate the drainage areas and each point of discharge. Partially addressed. Additional clarification is needed with respect to delineation of drainage areas.*

**Response by Frey/ELM:** As noted previously the areas are outlined on the drainage area maps and the points of discharge are only two, the north driveway to Spring Street (pre-existing), and all other flows to Woodruff Lane.

28. *The information used for the outlet devices of Ponds 1S, 2S., 3S, 4S and 5S, and 14 on the drainage report have not been shown on the plans. It is not clear how this information was obtained. The plans and report should be revised accordingly.*

**Response by Frey/ELM:** The plans have been clarified. The internal outlet orifices are in place to control discharge from the Retainits. The surface covers are no longer needed with the adoption of the Geopave system providing TSS removal; overflow from the Geopave areas goes directly to

**the adjacent/neighboring Retainit. The manhole covers to be used on the Retainits are for maintenance.**

29. *The information of the outlet devices of Pond Tl and 15 on the drainage report don't match with the existing conditions plan. The plans and drainage report should be revised for consistency.*

**Response by Frey/ELM: The uses of these areas have been clarified.**

30. *Existing inlet 1-2 shows a portion of a 6" PVC inflow pipe. Additional information is required concerning the 6" PVC and possible additional tributary drainage area.*

**Response by Frey/ELM: Reinvestigation of this area shows no terminus or connection on or off site. It has been removed from the latest survey information.**

31. *Clarify if the secondary devices shown on the Summary Ponds for the existing conditions calculations are in accordance with the existing inlets grates on the property. Not adequately addressed.*

**Response by Frey/ELM: As closely as can be determined from the survey provided, yes.**

32. *The hydrologic calculations have been performed using smaller sub-catchment areas that are tributary to the same point of analysis (i.e. existing drainage areas E-1 thru E-7 are tributary to the existing drainage system living the property at the southwest corner of the site. To facilitate the review, a section should be added to the drainage report describing each drainage area in detail, including the land cover and discharge point of analysis. Continuing comment. This response is relative to Comment 47.*

**Response by Frey/ELM: These areas are addressed on the Drainage Area maps.**

33. *The ladder rung detail for sanitary and storm structures should be provided. Addressed*

**Response: No further response required.**

34. *Details should be provided for all proposed monument and wall mounted signs. Addressed*

**Response: No further response required.**

35. *The location of proposed trash enclosure should be added to the plans. The Applicant states that no trash enclosure is proposed.*

**Response: No trash enclosure is proposed for this plan.**

36. *A note should be added to the plans indicating that all improvements are to be made in compliance with 2010 ADA standards, etc al. Addressed*

**Response: No further response required.**

37. *Provide a note on the plans indicating that all traffic signage and striping shall be in accordance with the latest edition of MUTCD. Addressed*

**Response: No further response required.**

38. *The line of sight distances shall be depicted on the site plans in accordance with the current edition of AASHTO's policy on geometric design of highways and streets.*

**Response: The site plans have been updated to include the lines of sight at the intersections.**

39. *The applicant should provide a truck and vehicle turning circulation exhibit to verify that the on-site circulation is adequate for the required service and emergency vehicles access throughout the site.*

**Response: A truck turning exhibit has been prepared and is enclosed with this resubmission.**

40. *The location of no parking zones for fire fighting operations should be provided, including construction details.*

**Response: The site plan has been revised to indicate painted lettering for Fire Zones. A detail for the proposed lettering is also provided on the Detail Sheet.**

41. *The limits of proposed pavement restoration, curbs and restriping along public roads should be shown on the plans. Addressed*

**Response: No further response required.**

42. *Approval should be obtained from the fire official regarding the required fire lanes, markings, signage, striping and access for fire apparatus.*

**Response: This approval is still pending. Drawings have been sent for review and comment.**

43. *Calculations should be submitted to demonstrate that the existing waterline is suitable for the proposed domestic and fire flow volumes and pressures.*

**Response: This investigation is still ongoing and results will be submitted**

**as soon as available.**

44. *Provide domestic and fire flow water distribution system calculations. A minimum of 20 psi of residual pressure should be available for firefighting. Hydrant flow testing results should be submitted to confirm available fire flow (AFF).*

**Response: This investigation is still ongoing and results will be submitted as soon as available.**

45. *Sanitary sewer and water demand calculations should be provided for the proposed project.*

**Response: Calculations for estimated demand have been provided on the Site Plan.**

46. *Concrete encasement should be provided for all utility crossings of less than 18". The location of all proposed utility crossings and concrete encasements should be shown on the plans and profiles. The applicant should provide a table format for water mains, including lateral crossings, with corresponding clearances to reflect the avoidance of conflicts with other underground utilities.*

**Response (Combined Consultant Response): The only proposed piping is the new storm piping proposed. Profiles of the storm piping with utility crossings are provided on the Stormwater Profiles and Details plan sheet.**

47. *The utility crossing detail should be added to the plans. A note should also be included indicating that water mains crossing storm sewers or drains where the clearance between the pipes is less than eighteen inches (18"), pier supports for the storm sewer shall be provided in order to prevent the load transfer to the affected utility*

**Response by Frey/ELM: Pipe Crossing detail is provided on the Stormwater Profiles and Details plan sheet. Information on the depth of other utilities was not available so a note has been added to indicate investigation before construction with appropriate use of supports or encasement.**

48. *A note should be added to the plans indicating that all constructions shall comply with the current rules and regulations or ordinances of the City of Elizabeth, NJDEP and all applicable regulatory agencies having jurisdiction. Addressed*

**Response: No further response required.**

49. *A note should be added to the plans indicating that any existing curbs or other objects damaged during construction shall be repaired or replaced to the satisfaction of the City Engineer and NJDOT if required. Addressed*

**Response: No further response required.**

50. *The utility pole to remain shown on Sheet C-300 located along the edge of the driveway, near the no parking loading zone striping, should be relocated to the south of the striping space. The Applicant has indicated that the striping has been added but it does not appear to have been added to the plans.*

**Response: Drawing C-300, as prepared by J-K in collaboration with Frey/ELM, indicates striping in the parking space area where the existing pole is located.**

51. *Additional dimensions should be added on Sheet C-300 for handicap parking spaces, accessible aisles, striping spaces, loading ramp, the two-way and one-way driveways and curb cuts on Spring Street and curb radii. Partially addressed. Additional dimensions should be added.*

**Response: Additional dimensioning has been provided on drawing C-300.**

52. *Spot elevations should be added to all proposed handicap parking spaces, ramps and landing areas to verify conformance with ADA requirements. Not addressed.*

**Response: Additional detailed grading has been provided in an inset view on the Detail Sheet, C-900.**

53. *In order to facilitate the review of the proposed grading, the grading plan should include slopes with arrows within the overall area. Not addressed.*

**Response by Frey/ELM: The Grading and Drainage Plan for Lot 1699.D has been updated as requested.**

54. *Less than 1% slope has been proposed within a portion of the proposed parking area. The grading should be revised to provide paved area with a minimum of 1.5% to avoid ponding. Not addressed.*

**Response by Frey/ELM: The entire site has insufficient surface topography gradient / elevation change to meet this requirement without major excavation of impacted soils. Instead, the planned drainage system for the site makes use of pervious pavement structures in all low points to address potential ponding issues. The 100-year event has been designed to stay below the pavement surfaces.**

55. *Are new fences and gates proposed? Addressed.*

**Response: No further response required.**

56. *Clarify if new water and gas lines will be required. Addressed*  
**Response: No further response required.**
57. *The location of existing gas meters, water meters and vaults should be shown on the plans. Not addressed.*  
**Response: The locations of electric and water meters are provided and called out on the plans. There is no gas service to the site.**
58. *The demolition plan C-200 indicates that the existing electric supply area will be modified, while C-300 indicates to remain. The plans should be revised to include the proposed modifications. Addressed.*  
**Response: No further response required.**
59. *No directional signages have been provided. All proposed signs, striping and pavement markings should be provided, including but not limited to stop signs, stop bars, one-way, ingress & egress, no parking, do not enter, fire lane, handicap, etc. The construction details should also be provided. Partially addressed. Additional signs and pavement markings should be added to plans.*  
**Response: To the extent they are proposed, signage is provided.**
60. *The existing contours on Sheet C-400 should be shown on halftone dashed line. Addressed*  
**Response: No further response required.**
61. *In order to properly review the grading plan, the proposed site conditions should be shown on the Grading and Drainage plan sheet C-3. Not addressed.*  
**Response: An updated drawing C-400 has been provided.**
62. *Verify that the proposed lighting plan complies with the requirements of the City of Elizabeth. The illumination requirements from the City of Elizabeth should be added to the plan. Not addressed.*  
**Response: The City's illumination requirements have been added to the Lighting Plan. It is the intent to comply with the City's requirements to the maximum extent feasible.**
63. *The drainage report should be revised to provide emergency spillway calculations for the proposed subsurface detention systems. The emergency spillway analysis should be based on the 100-year basin inflow runoff and assuming that the principal spillway is malfunctioning and will not allow any discharge or flow. Not addressed.*

**Response by Frey/ELM:** The stormwater management system consists of subsurface TSS and Peak Flow control elements. On Lot 1699.D (the Site) there are five (5) Retainit structures with surface outlets/access points, and ten (10) Geopave structures with individual surface inlets for collection of stormwaters for TSS treatment. There is less than two feet (2') of vertical elevation difference across the site, which effectively eliminates specifying a traditional emergency spillway structure location. In the existing condition with the inadequate drainage piping the major storm events tend to pond then flow primarily to the southeast corner of the lot, and also down the north access driveway. A blocked principal spillway analysis will be provided in the Stormwater Report for blocking the outlet pipes for all 5 Retainits and the outlet pipe in MH-E2 in the southeast corner.

64. *The Stormwater Operations and Maintenance Manual (O&M) should be prepared and submitted for review in accordance with the New Jersey BMP Manual. These documents would be required to be attached to the deed as a rider. Not addressed.*

**Response:** We request provision of this information be made a condition of final approval. Should the Board act favorably on this application, O & M manuals will be prepared and provided.

65. *The cold in place recycle pavement section detail on Sheet C-4 should be revised to include the thickness of the base course. Addressed.*

**Response:** No further response required.

66. *The subbase course of the standard full depth asphalt pavement section detail on Sheet C-4 should be 6". Addressed.*

**Response:** No further response required.

67. *The proposed manhole cover detail should include the year. Addressed.*

**Response:** No further response required.

68. *Additional details should be provided for the proposed Retain it detention basin and outlet control structure. Not addressed.*

**Response by The Elm Group:** Details on drawing C-402 are clarified.

69. *The proposed Retain it detention basin consists of structures with open bottom and 6" stone base. It appears that stormwater will be infiltrated. Soil test in accordance with NJDEP BMP manual should be submitted. A detail of the membrane should be provided.*

**Response by Frey/ELM:** No infiltration is proposed. The detail is clarified to show total wrapping of the Retainit and Geopave excavations with 30 mil

impermeable liners.

70. *Due to the potential for groundwater contamination, the use of infiltration basins is prohibited in areas of high pollutant or sediment loading is anticipated.*

*Clarification is required concerning the contaminated areas. Addressed.*

**Response by Frey/ELM: No infiltration from the Retainits or Geopave is proposed. All structures will be wrapped/lined with 30 mil liner to prevent infiltration. See detail sheet.**

**Response by Jarmel-Kizel: Infiltration was utilized only for the basin associated with the access road on lot 1299.A. Since this is a temporary condition due to plans for the total redevelopment of lot 1299.A, we believe this is an appropriate system. We understand that soil permeability testing must be performed prior to finalizing the system design. If permeability fails, the system will be modified to a typical retention system with an outflow structure and pipe to the North Avenue storm system.**

71. *The roof leader should be connected to the underground drainage system. The roof leader collection system and cleanouts should be shown on the grading and drainage plan. The cleanout riser cover detail should also be added to the plans. Partially addressed. Only the storm cleanout detail was provided*

**Response: The runoff from the roof has been accounted for in the storm design. It is requested that this request be reconsidered. Reconsideration is requested based on: 1) the few remaining buildings will ultimately, in the not too distant future, be demolished; and, 2) due to the contaminated nature of the site underlying soils, it is preferred to keep excavation and removal of soils from the site to a minimum. If the Board insists on this condition, we ask that it be made a condition of final approval.**

72. *The applicant submitted two separate sets of site plans for the project. many of the information and details that are repeated on both sets of plans are different, i.e. existing topography, Soil Erosion Control Plan, construction details, proposed grading, missing information, etc. The site plans should be combined into one single set of plans. Only the drainage plans should be separated and included in the Stormwater Management Report. Partially addressed. The plans still show duplicate details.*

**Response: The submission set has been further revised to eliminate duplicate and non-applicable details.**

73. *The Applicant shall comply with the comments of the City Engineer, dated May 13, 2019. Not addressed.*

**Response:** Responses to the City Engineer's report are provided in the following correspondence section.

74. *Additional comments may be presented pending receipt of the revised plans and reports. Please submit 3 copies of revised plans and reports along with a point by point response letter. The response letter shall address all comments and should include the location of the revised items.*

**Response:** The plans and storm report have been revised in an attempt to address nearly all the comments presented in the various review reports. We recognize there may still be some outstanding items and that additional comments may be forthcoming pending review of this submission. We believe the major items of concern have been addressed and we respectfully request any remaining items be made a condition of final approval should the Board act favorably on this application.

#### Division of Engineering Letter dated October 1, 2019

1. *We disagree with the response to comment number 8 in the Engineering Review: Harbor Consultants Letter dated September 5, 2019 section and comment number 2 in the Division of Engineering Letter dated May 13, 2019 section of the response letter, the intent of NJAC 7:8-5 is to demonstrate compliance with the quantity requirements at each point of discharge, not on a site wide basis.*

**Response by Frey/ELM:** The stormwater analysis and report are updated to include information from the City of Elizabeth MS4 Stormwater Plan information and mapping prepared by Mott McDonald which indicates that Lot 1699.D is located in two HUC 14 Sub watersheds, E-45E and E-52. E-45E contains all of Lot 1699.D except the access driveways which exit to Spring Street along with adjoining Lot 1699.C into E-52. The revised report addresses these factors.

2. *The pre-construction runoff rates in Table 2 do not appear to be consistent with pre- construction runoff rates as shown in Table 5. The run-off to Spring Street appears to be dramatically increasing from the pre-construction condition. The propose run- off reductions need to be met at each point of analysis and for each storm event.*

**Response by Frey/ELM:** The revised report addresses this issue including changes to the runoff patterns discovered based on the new survey and pipe clearing performed on Lots 1699.C (Spring Street Plaza) and 1699.D (SSDC).

3. *Further comment will be provided when the updated Stormwater Management Plans and Re- port are prepared.*  
**Response: Understood.**
  
4. *A stormwater management plan and report for the adjacent property shall be provided.*  
**Response: A stormwater management plan and report are provided for the proposed temporary North Avenue Access Road on lot 1299.A.**
  
5. *An easement will need to be prepared for the proposed North Avenue East access driveway.*  
**Response: Understood. Should the Board act favorably on this application, we ask this be made a condition of final approval.**

As stated in a prior response above, the plans and storm report have been revised in an attempt to address nearly all the comments presented in the various review reports. We recognize there may still be some outstanding items and that additional comments may be forthcoming pending review of this submission. We believe the major items of concern have been addressed and we respectfully request any remaining items be made a condition of final approval should the Board act favorably on this application.

Should you have any questions or require additional information in advance of the upcoming public hearing continuation, please do not hesitate to contact our office.

Very truly yours,  
**Jarmel Kizel Architects and Engineers, Inc.**



Gerard P. Gesario, PE  
Director of Civil Engineering

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