June 22, 2020

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

RE: Spring Street Development Corp.  
Review 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 March 18, 2020, Harbor Consultants technical review letter dated May 21, 2020, and Harbor Consultants planning review letter dated May 26, 2020. 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.  

HARBOR PLANNING REVIEW DATED MAY 26, 2020  

Zoning Comments  

1. The subject property is located in the HC Highway Commercial Zone and the MRC Manufacturing, Research & Commercial Zone. The majority of the property is located in the MRC Zone. Neither stand-alone parking lots, storage of delivery vans or logistic operations are not (sic) permitted uses in either zone, therefore a D(1) use variance is being requested.  
Response: Statement of fact. No further response required.  

2. It is no (sic) clear if the two properties are to be consolidated. An access driveway is not a permitted principal use on Lot 1299-4. An additional use d.1 variance may be required. No other uses shall be conducted on Lot 1299-4 without Board approval.  
Response: Consolidation of the lots is not proposed under this application.  

3. The following bulk variances are being requested:  

Partial responses are provided below. Please see separate attached correspondence from the applicant’s Planner, Paul Grygiel, AICP, PP of Phillips Preiss Grygiel Leheny Hughes LLC.
HC Highway Commercial Zone:
   a. The required lot width is 100', whereas 11.35' is proposed.
   Response: This is an existing condition created by the unique shape of MRC Zone lot 1699.D. The driveways that extend out to Spring Street from the MRC zoned lot are where this width is measured and the variance occurs.
   b. The minimum required open space is 20%, whereas 0% is proposed.
   Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The driveways that extend out to Spring Street from the MRC zoned lot are where this variance occurs.
   c. The maximum permitted impervious coverage is 80%, whereas 100% is proposed.
   Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The driveways that extend out to Spring Street from the MRC zoned lot are where this variance occurs.
   d. The minimum required lot area is 10,000 square feet, whereas 7,091 square feet is proposed.
   Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The area of the driveways that extend out to Spring Street from the MRC zoned lot are where this variance occurs.

MRC Manufacturing, Research & Commercial Zone:
   a. The required lot frontage is 150', whereas 37.56' is proposed.
   Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The variance occurs at the zone boundary line that divides lot 1699.D into two (2) zones.
   b. The maximum permitted impervious coverage is 75%, whereas 84% is proposed.
   Response: The applicant has worked with HCI to create a plan that is a compromise to a 100% cap and the ordinance requirement. The plan is a significant improvement to the current lot condition.

4. The following additional variance is required: under Section 17.36.110.G.1 of the City Code the minimum Floor Area Ratio (FAR) is 11%, whereas a FAR of 0% is proposed for Lot 1299-4, 729-763 Meadow Street.
   Response: Statement of fact. No further response required.

5. Under Section 17.36.110.C.6 of the City Code, fences in front yards are to be of a decorative material or obscured by plant material, whereas the fence in the front yard of 1299-4, 729-763 Meadow Street is chain link.
   Response: The applicant is willing to replace the existing chain link fence with a decorative fence and eliminate the variance.
6. The following variances are required Under Section 17.36.140 - Landscaping of the City Code:

Section A: Outdoor storage areas shall be enclosed by a solid wall, fence or landscaping sufficient to screen such activity from view.

Response: The applicant does not agree with the use being described as an “outdoor storage area”.

Section D: Adjacent parking areas with 10 or more parking spaces shall be delineated by an appropriate landscape strip.

Response: The applicant can comply with this requirement but we point to the DEP mandate and requirement to cap this site. If HCI agrees, the applicant can delineate the required 10-foot strip with striping and place moveable planters within the space.

Section E.2 Front yards outside of parking and driveway area shall be landscaped in their entirety.

Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The area of the driveways that extend out to Spring Street from the MRC zoned lot are where this variance occurs.

Section E.4: Parking areas shall be accompanied by landscape areas amounting to 20% of the paved parking and driveway area.

Response: As noted previously, the applicant has worked with HCI to create a plan that is a compromise to a 100% cap and the ordinance requirement. The plan is a significant improvement to the current lot condition.

7. The following design waivers are required:

a. Under Section 17.32.060.B.2 of the City Code, an inside radius of 15’ and an outside radius of 26’ is required for vehicles up to 20’ in length for driveway aisles and other vehicular circulation areas are required, whereas there are areas with no radii being provided.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

b. Under Section 17.32.060.C.3 of the City Code, the required setback from a parking area to a side or rear property line is 3’, whereas 0’ is proposed.

Response: This is also an existing condition created by the unique shape of MRC Zone lot 1699.D. The area of the driveways that extend out to Spring Street from the MRC zoned lot are where this variance occurs.

c. Under Section 17.32.060.D of the City Code, a ten foot safety island is required between the end of a parking bay and any driveway aisle, whereas no safety islands are proposed.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

d. Under Section 17.32.E.060.1 of the City Code, poured-in-place concrete curbing shall be used in all off-street parking areas to separate vehicular from non-vehicular areas, whereas as no curbing is proposed.

Response: The applicant is requesting this design waiver.
e. Under Section 17.32.060.G of the City Code, asphalt or concrete pavement is required for off-street parking areas, whereas the Geopave gravel parking areas do not comply.

Response by ELM/FREY – for the purpose of TSS removal under NJDEP BMP 9.7 a waiver is requested. The Geopave areas are structurally sound for HS20 loadings, and have been approved for use/used in other towns in NJ.

f. Under Section 17.32.070.A.1.a.i of the City Code, the minimum illumination level in a parking area is 1.5 foot-candles, whereas less than 1.5 foot-candles is proposed.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

g. Under Section 17.32.070.A.1.d of the City Code, the minimum illumination level at a driveway is 3 foot-candles, whereas less than 3 foot-candles is proposed.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

h. Under Section 17.32.080.C of the City Code, deciduous trees shall have a planting height of not less than 7', whereas the height is not specified.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

i. Under Section 17.32.080.D of the City Code, shrubs shall have a planting height of not less than 24", whereas a height of 18" to 24" is proposed.

Response: The applicant is agreeable to amending the plan as a condition of final approval.

j. The applicants design team is requesting twelve (12) bulk variances and nine (9) design waivers. Of the twelve bulk variances, eight are self-created. Items such as zero open space provided where 20% is required, along with 100% impervious where 80% is required, are not something dictated by the site constraints but rather the request from the Client. Almost every one of the eight requested variances ignore the City's Ordinances and appear to be a case of the client desires opposed to the City's needs. It is our opinion that no hardships exist for these variances nor are there any characteristics for a discussion requesting a C(1) or C(2) variance. There is countless New Jersey case law pertaining to self-created hardships and how the positive criteria has not been met when the Board has deemed such variances as self-created.

Response: It is our opinion that five (5) of the variances cited are existing conditions and are as a result of the unique shape of lot 1699.D and the location of the City's zone boundary line that splits lot 1699.D into two (2) zones. The hardship we would point to are the environmental conditions of the site and the DEP mandate to provide a 100% cap to this site.

General Comments

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

Response: The applicant will provide at the upcoming Zoning Board hearing.
2. The Applicant shall provide testimony as to the operation of the proposed facility, including hours of operation, number of employees, etc.
   Response: Testimony has previously been provided. The applicant will provide additional testimony as necessary at the upcoming Zoning Board hearing.

3. A survey prepared by a licensed land surveyor has been provided.
   Response: An updated survey has been provided with this submission providing information previously omitted.

4. The Applicant shall provide testimony with respect to bathroom facilities. Temporary toilet facilities (porta-johns) are not permitted on a permanent basis.
   Response: The current plans do not provide for temporary toilet facilities. Bathroom locations within the buildings are noted on the plans.

5. The existing fire hydrant located in the westerly portion of the parking area will not be accessible with vehicles parked in the spaces surrounding the hydrant. The hydrant should be located in a more accessible area, to be coordinated with the City Fire Official.
   Response: The applicant will comply as a condition of final approval.

6. The Applicant shall provide testimony with respect to the handling of refuse and recycling.
   Response: The need for refuse and recycling is not anticipated at this site. Testimony will be provided as necessary.

7. Landscaping is proposed consisting of 11 shade trees (sic), 27 Abortive (sic) evergreens and Boxwood shrubs. The Applicant has added screening along the perimeter of Lot 1299-4 and has indicated that due to the environmental cap required for the site, additional landscaping is not feasible. However, the Applicant should look into above grade planters to provide additional on-site landscaping.
   Response: The applicant will comply as a condition of final approval.

8. The Application indicates that no signs are proposed. Any new signage shall comply with the City Code or the Applicant will be required to return to the Board for additional variances.
   Response: Statement of fact. No further response required.

9. The Applicant's response letter indicates that the purpose of the river stone along the perimeter of the parking area is to create a maintenance free pervious area. The Applicant shall provide testimony as to why this area cannot be landscaped.
   Response: Testimony to this statement was provided at a prior hearing. The applicant is willing to discuss additional landscaping as a condition of final approval.
10. The Remedial Capping Plan indicates areas of concern (AOC), containing Chromium and PCB’s. Based on previous testimony, the remedial work is being performed under the direction of an LSRP in accordance with NJDEP rules and regulations.

**Response:** Statement of fact. No further response required.

11. The existing building is in poor condition. The application indicates that the buildings require total replacement and repairs are not proposed. The application also indicates that total demolition is possible. Further clarification is required.

**Response:** The Applicant’s preference is to demolish all but one (1) small building at this time. To do so would create an additional variance for not meeting the minimum F.A.R. requirements. The Applicant defers to the Board for their preference as to this matter.

12. See attached memorandum prepared by HCI, dated May 21, 2020 for stormwater management comments.

**Response:** Responses to said correspondence are included within this response letter.

13. See attached letter from Hamal Associates, dated October 11 2019, for traffic comments. A truck turning exhibit has been provided which depicts a clear turning for an aerial fire truck. Based on our inspection of the site, there are a large number of cargo vans that are parked in a disorganized fashion, some stacked 3 to 4 vehicles deep. This raises a concern that if the parking plan is not adhered to there will be a fire access issue.

**Response:** Testimony related to the site traffic and parking provided will be provided at the upcoming Zoning Board hearing.

14. 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 for all uses on the property. The Applicant has indicated that the number of vans to be stored onsite will be approximately 200 and there will be 150-175 delivery employees.

**Response:** Testimony related to parking needs will be provided at the upcoming Zoning Board hearing.

15. The site shall meet the requirements of the American with Disabilities Act and the New Jersey Barrier Free Code.

**Response:** The applicant will comply as a condition of final approval.

16. The Applicant shall comply with all directives of the City of Elizabeth Fire Official.

**Response:** The applicant will comply to an extent reasonable and feasible as a condition of final approval. Please note, the applicant has made several attempts to obtain a review and response from the Fire Official without success.
17. The Applicant shall comply with the comments of the City Engineer.
   Response: Responses to said correspondence are included within this response letter.

18. 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 as a condition of final approval.

19. 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 will comply as a condition of final approval.

20. 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.

21. 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.

22. An engineers (sic) estimate for site improvements must be submitted prior to signature by the Board Chairperson.
   Response: The applicant will comply.

23. 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.

HARBOR TECHNICAL REVIEW DATED MAY 21, 2020

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. Not Addressed.
   Response: An updated survey has been provided with this submission providing information previously omitted.

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. Addressed.
   Response: No further response required.
3. A boundary and topographic survey reflecting the current site conditions should be submitted. Partially Addressed. A topography survey has not been provided as indicated above. Response: An updated survey has been provided with this submission providing information previously omitted.

4. The inlets and manholes located along the south property line should include the storm sewer pipes. Partially Addressed. Not all pipes have been shown on the plans and the boundary survey. The plans show inlets with inverts from pipes that have not been shown. Response: The applicant requests specifically what information the reviewer is looking to be provided. The updated survey provided includes all information as found in the field to the best extend practical and reasonable. Considerable time and expense were incurred in determining both on-site and off-site utility structures. This is an older system so anomalies and uncertainties are to be expected. All information as best can be determined has been provided.

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. Partially Addressed. Not all requested information has been provided. Response: See response to comment 4 above. We respectfully request that the City/Harbor specify how far off-site survey should extend.

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. Partially Addressed. Additional information should be provided for the existing manholes. Response by ELM/FREY – The current plans provide all available information to the extent that the survey was conducted. We respectfully request the City/Harbor clarify and explicitly state how far down Woodruff Lane “all relevant information” is needed, and if anything other than location, rim, inverts and size of piping is required.

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. Partially Addressed. Additional information should be provided. All inverts, pipes dimensions, etc. should be provided. Response by ELM/FREY – the plans currently, to the extent of the survey, provide all available information. We respectfully request clarification from City/Harbor on the distance (and direction) along Spring St. and Woodruff Lane that utility information is needed beyond what is currently shown on the plans.
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. Not adequately addresses (sic). Applicant should comply with the required runoff rate reductions at N.J.A.C. 7:8.
Response by ELM/FREY – The current report shows the actual, existing discharge points as they exist on the ground today, regardless of the HUC designations shown in the City of Elizabeth Stormwater Management Report prepared by Mott-McDonald in December 2018. The HUC sub-matrices show the lot in question (1699.D) to be in one HUC sub-watershed which all flows south to Woodruff Lane. The north and south entryways/driveways into lot 1699.D flow west to Spring Street in a separate HUC sub watershed. The proposed conditions contains/controls drainage across the entire property including the existing flows which exit the property toward the NJDOT property (to the north) and toward Somet Tire Center (to the east). In the proposed conditions, the north driveway continues to flow west but the south driveway flows east due to the drainage piping for Lot C. The proposed conditions actually conform to the HUC watersheds better than the existing conditions by removing all existing out of HUC flows except for the south driveway to existing Lot 1699.C. The south driveway currently flows to the existing discharge point on Woodruff Lane and will in the future. In the proposed conditions all possible offsite flows are redirected to onsite peak flow and TSS treatment facilities to conform with N.J.A.C. 7:8 requirements, and HUC boundaries. Table V-2 shows the existing discharges, including those to the west, north and east, that currently flow out of the HUC watershed (HUC # E-45E for main lot and E-52 for driveways to Spring Street). Table V-2 shows the required reductions for peak flows. The site plan meets the HUC limits for the site whereby Table VI-3 shows the impact of containing all possible flows to discharge to the south with two exceptions - the north driveway continues to flow to Spring Street in the adjoining HUC and the South Driveway still flows to the Site HUC as the existing drainage previously installed directs those flows to the east and south. That table also shows the 7:8 reductions have been met except possibly for the 2-yr event, in spite of increasing the drainage area having to be treated by adding in OS-3, 4N&S, and Lot 1699.C by default. A revised table will be submitted for verification in a future plan revision.

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. Not addressed.
Response by ELM/FREY – see response to #8 above. Table 5 was superseded by Table V-2 in the revised submittal. The existing drainage system on site overloads hydraulically beyond the 2-yr event and flows begin to pond on site and flow primarily to the south property line, to the north to the NJDOT site or
east to the SOMET Tire Center site. In the proposed conditions this does not occur.

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. Addressed.
Response: No further response required.

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. Addressed.
Response: No further response required.

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. Addressed.
Response: No further response required.

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. Partially Addressed. The ‘n’ value of 0.011 used for the 18” RCP from node MH-A4 should be changed to 0.013. The pipe listing on Sheet C-400 and drainage report should be revised.
Response by ELM/FREY – The point in question is the discharge end of the RCP pipe on 1699.C. At the inlet end the N value is correct for determining capacity of the pipe. The discharge end of the RCP pipe will be changed to 0.013 in a future plan revision.

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. Addressed.
Response: No further response required.

15. The Hydro CAD diagrams for the existing and proposed pipe listing should be added to the stormwater management report. Partially Addressed. Some of the symbols of the routing diagrams shown on the drainage plans are too (sic) small to read. The Hydro Cad routing diagrams for existing and proposed conditions without the site plan background should be added to the drainage report to facilitate the review.
Response by ELM/FREY – the site plan backgrounds were added to the revised plans as requested by Harbor in their first review. D-Size plan sheets without background will be provided, and the symbols increased in size, in a future plan revision.

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. Addressed.
Response: No further response required.

17. Additional spot elevations and contours should be provided offsite around the site to properly evaluate the existing and proposed discharge points of analysis. Addressed.
Response: No further response required.

18. The minimum time of concentration used in the hydrograph calculations should be 10 minutes. Addressed.
Response: No further response required.

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. Addressed.
Response: No further response required.

20. The required TSS removal rate should be included in the drainage calculations. Continuing Comment.
Response by ELM/FREY – NJDEP BMP 9.7 (11/2016) inherently supplies 80% TSS reduction as specified in that document. A note will be added to the report to indicate that the requirements from BMP5 9.7 to attain 80% TSS reduction were followed and thus the TSS requirement has been met, in a future plan revision. The size, depth and fill materials in the design comport to the outline in 9.7 needed to achieve 80% removal.

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. Continuing Comment. The drainage plans are not clearly delineated. The drainage plans show only the total drainage areas. The pervious, impervious and gravel areas should be added to each drainage area.
Response by ELM/FREY – The pre and post drainage maps provided in the submittal outline specific areas of the plan with notes on the plan as to the type of cover being analyzed in each sub area. D-Size drawings of the Drainage Area maps will be provided in a future plan revision. The background images were added per Harbor’s previous request so that the ground cover could be verified.

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. Not addressed.
Response by ELM/FREY – The plan revisions changed the designations for the drainage areas. The pre and post total of the areas drained are the same. The internal drainage areas are determined by the grading.
23. Based on the information shown on the existing conditions plan, it appears that portion of existing drainage area O-3 is tributary to drainage area E-6. Additional spot elevations should be added in order to verify the drainage areas limits. Addressed.
Response: No further response required.

24. Clarify why the existing storm sewer pipes and structures have been used as detention basins in the hydrologic calculations. Addressed.
Response: No further response required.

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. Not addressed.
Response by ELM/FREY – We respectfully request a discussion of the need for this as the entire existing drainage system on the north side of the parcel is being replaced, but the restriction on the piping to Woodruff Lane is limited to a 12” piping which causes backflow in post conditions beyond the 10 year event. We respectfully request the reviewer provide the citation in the municipal stormwater regulations for this portion so we can properly evaluate same.

26. The inlet drainage plan should be added to the drainage report. Continuing Comment. A separate inlet drainage plan for the drainage areas tributary to inlets only, excluding a drainage area that is not tributary to an inlet, should be prepared as part of the calculations requested under Item #25 above.
Response by ELM/FREY – The plan is designed so that all onsite surface flows go to inlets in the Geopave areas, the only exception being if the roof drains are allowed to drain directly to the Retainit structures.

27. The pre-development and post-development drainage areas plans should clearly delineate the drainage areas and each point of discharge. Continuing Comment. the drainage area delineations should bee (sic) clarified with thicker color lines.
Response by ELM/FREY – D size DA maps and delineation without background images will be submitted in a future plan revision

28. The information used for the outlet devices of Ponds 1S, 2S, 3S, 4S and 5S, 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. Continuing Comment. The drainage areas are unclear and some of drainage areas names on the drainage plans don’t match with the area on the drainage report. For example, Drainage area OS-1 on the drainage plan is calculated as drainage area OS-2. The drainage calculations will need to be review it once all drainage areas in the report and drainage plans are revised.
Response by ELM/FREY – We will review in detail and respond in a future plan revision. It is unclear whether the question/request refers to the pre or post
conditions. The pre and post conditions sometimes change the designations for drainage areas from E to P to make it easier to compare existing and proposed conditions. If the comment relates to the difference in numbering between existing and proposed conditions, the numbering had to be changed due to the changes in the loss of offsite (OS) areas due to regrading. In Lot 1699.C, OS 5 was held pre to post and OS 6 was then assigned to Lot C to keep the numbering consecutive on that lot.

29. The information of the outlet devices of Pond 11 and 15 on the drainage report don’t match with the existing conditions plan. The plans and drainage report should be revised for consistency. Not addressed. See response at Item #28 above.
Response by ELM/FREY – Clarification is requested as to whether this a pre or post issue. Depending on Harbor’s response, this will be addressed in a future plan submittal.

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. Addressed.
Response: No further response required.

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. Continuing comment. The inverts provided on the drainage report for existing Pond COMM-2 don’t match with the plans. Verified that all inverts in the drainage report are coordinated with the plans.
Response by ELM/FREY – Information to be provided by SSDC will be used to verify the elevations.

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. Continuing comment.
Response by ELM/FREY – To the best of our knowledge the report contains detailed descriptions of the sub areas. Please refer to pages 26 to 52 of Appendix A, and pages 31 to 74 in Appendix B. We also are not sure of what is relevant to Comment 47. Please clarify.

33. The ladder rung detail for the 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.
Applicant states that no signage is proposed.
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 further response required.

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 stripping 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. Partially Addressed. The sight distances are not clear. Dimensions should be added.
   Response: The applicant will comply as a condition of final approval.

39. The applicant should provide a truck & vehicle turning circulation exhibits to verify that the on-site circulation is adequate for the required service and emergency vehicles access throughout the site. Partially Addressed. The truck specifications should be added to the plans E-002. The turning template for the vehicles that will provide services has not been provided.
   Response: The turning analysis provided indicated adequate maneuverability of a fire truck throughout the site. The vehicles using the site daily are typical cargo vans. It is not clear why an analysis is requested for a significantly smaller vehicle.

40. The location of no parking zones for firefighting operations should be provided, including the construction details. Partially Addressed. No parking fire zone signs locations and details should also be provided in accordance with the fire department requirements.
   Response: Any missing or required additional signage and signage details will be provided as a condition of final approval. Please note, the applicant has made several attempts to obtain a review and response from the Fire Official without success.

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. Not addressed.
   Response: Please note, the applicant has made several attempts to obtain a review and response from the Fire Official without success.
43. Calculations should be submitted to demonstrate that the existing waterline is suitable for the proposed domestic and fire flow volumes and pressures. **Not Addressed.**

   **Response:** Please note, the applicant has made several attempts to obtain information and assistance from the Fire Official. The applicant agrees to pursue and address this concern as a condition of final approval.

44. Provide domestic and fire flow water distribution system calculations. A minimum of 20 psi of residual pressure should be available for firefighting. Hydrants flow testing results should be submitted to confirm available fire flow (AFF). **Not addressed.**

   **Response:** See response to Comment 43 above.

45. Sanitary sewer and water demand calculations should be provided for the proposed project. **Addressed.** Calculations have been provided on Sheet C-300.

   **Response:** No further response required.

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/utility crossings, including lateral crossings, with corresponding clearances to reflect the avoidance of conflicts with other underground utilities. **Addressed.**

   **Response:** No further response required.

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. **Partially addressed.** The note needs to be added.

   **Response:** No further response required.

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 appear to have been added to the plans.
Response: The applicant prefers not to relocate the existing utility pole. It is suggested bollards are added for protection of the pole in lieu of relocating said pole. If acceptable, this revision will be made as a condition of final approval.

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: The applicant requests the reviewer be more specific as to what additional dimensions to be provided. Plans will be revised accordingly as a condition of final approval.

52. Spot elevations should be added to all proposed handicap parking spaces, ramps and landing areas to verify conformance with ADA requirements. Partially Addressed. It is unclear if this requirement has been met. Additional spot elevations should be provided within each ADA accessible route and building doors. Response: The applicant agrees to provide the additional information as a condition of final approval.

53. In order to facilitate the review of the proposed grading, the grading plan should include slopes with arrows within the overall area. Partially Addressed. Additional arrows and spot elevations should be provided within the overall area and along the property lines in order to verify the drainage paths. Response by ELM/FREY – ELM/Frey will coordinate with Jarmel Kizel on this issue in a future revised submittal to make sure appropriate pages and information are the same.

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. Partially Addressed. It appears that there will be ponding in some areas. Response by ELM/FREY – We request that the reviewer be more specific and identify the areas of concern. All surface flows go to the Geopave areas which are gravel with coarse stone reservoirs beneath them which will not allow ponding.


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.  
   Partially Addressed. The applicant engineer indicated that there is no gas service to the site. However, there is a gas line running along the ally and near the south rear corner of the building. Clarify the existing utilities.  
   Response: The Applicant will pursue investigation of existing gas service as a condition of final approval.

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. Continuing Comment. Details of all proposed signages should be provided. In addition, the proposed signs should be labeled on the site plan.  
   Response: Any missing or required additional signage and signage details will be provided as a condition of final approval.

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. Addressed. An updated drawing C-400 has been provided.  
   Response: No further response required.

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. Continuing Comment. The City of Elizabeth lighting requirements have not been provided on the lighting plan.  
   Response: The applicant agrees to include the requested information on the plans as a condition of final approval.

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. Partially Addressed. The drainage calculations will need to be reviewed once all drainage areas in the report and drainage plans are revised.  
   Response by ELM/FREY – We request a clarification on which areas the reviewer is referencing that were not addressed by the calculations.
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. Continuing Comment.
   Response by ELM/FREY – Due to the complexity of the systems and the need for approval of the structures being proposed, the O&M manual will be prepared after the plan has been fully approved.

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. Continuing Comment.
   Response by ELM/FREY – The plans as presented provide details with a table of elevations for the control structures. Item 8 in additional comments refers to various orifices and outlet elevations. With the stone bottom in the Retainits the outlet control elevations can be set as needed to meet the plan as noted in the table. An expanded separate outlet control detail will be added. These changes will be provided in the future plan revision.

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. Partially addressed. A detail of the membrane should be provided. Continuing Comment. Detail of the proposed 30 mil impermeable liners and PVC liners should be provided. In addition, The bottom of the system should be located one foot minimum above the seasonal high water table. The soil test results shall be submitted.
   Response by ELM/FREY – On C-402 there are already details on the 30 mil wrapping for the Geopave and Retainits. We reaffirm that the systems are not proposed to infiltrate into the ground but rather to prevent infiltration. Existing monitoring wells (MWs), located throughout the site, are periodically sampled and depth to water measurements recorded/groundwater elevations calculated. Based on the available ground water elevation data, the average April groundwater elevations on the site are 10.65 feet above mean seal level (AMSL) as observed in 7 MWs located under the slab on the north side, in the southwest corner of Lot in the driveway, and along the south alley. The minimum planned bottom elevation of any Retainit or GeoPave is no lower
than 13.40 feet AMSL (roughly 3 feet above mean seasonal high ground water level, based on the MW measurements).

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: No further response required.

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. Continuing Comment.
Response: Following is response previously submitted in our March 4, 2020 submission letter. 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. Continuing Comment. Two different asphalt payment details are shown on Sheets C-401 and C-900.
Response: The asphalt detail will be coordinated on final plans as a condition of final approval.

73. The Applicant shall comply with the comments of the City Engineer, dated May 13, 2019, October 1, 2019 and March 18, 2020. Not addressed.
Responses: Responses to the City Engineer March 18, 2020 review letter are provided as part of this submission letter.

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 applicant will submit revised plans as a condition of final approval. The revised plans and reports will be accompanied by a point by point response letter.
Additional Comments per Submittal of March 9, 2020

1. Details of the proposed 24” wide and 12” wide trench drains should be provided. The details should indicate how the trench drains discharge to the Geopave area.
Response by ELM/FREY- Information will be provided in a future revised plan.

2. The underground drains for Geopave area 2PGP2 on Sheet C-400 are crossing the concrete loading dock walls. Details should be provided for the proposed crossing. The top and bottom elevations should also be added.
Response by ELM/FREY – It was our understanding from the applicant that the walls would be demolished as part of the site work and not be a problem. Will add a detail in a future revised plan if the walls are to be left in place.

3. The grading within the proposed 12” wide trench drains on Sheet C-400 should be clarified. Based on the proposed elevations it is unclear how the stormwater runoff in this area will be collected. It appears that the low point is located at 5PGPN.
Response by ELM/FREY – Any overflow from the drains will still seek the low point noted at 5PGPN.

4. The proposed finished floor elevations and all high & low points should be provided. Also, additional spot elevations should be added at each building corner and property lines.
Response: Please note there are no proposed finished floors associated with this project. Additional spot grades are provided on the enclosed updated survey.

5. Clarification is required for the various labels with the word “HOLD” shown on Sheet C-400.
Response by ELM/FREY – The intent was to denote areas where elevations could not be changed.

6. The runoff flow arrow near system 2PGP3 and the concrete encasement shows that stormwater runoff will flow toward the south east area. Clarify how the collection points for this drainage area.
Response by ELM/FREY – the Geopave areas are the collection points. The flow arrow will be confirmed in a future revised plan

7. Due to the potential for groundwater contamination, the applicant is proposed a 30 mil impermeable liners and PVC liners at the bottom of the proposed pervious paver system with underdrain which should be designed in accordance with chapter 9.7 of the BMP Manual. However, based on the BMP Manual, this type of system should be designed with filter fabric and not impermeable liners. Clarification is required and the design engineer should evaluate an alternate design for water quality provisions.
Response by ELM/FREY – As previously noted all of the storm drainage systems are lined to prevent infiltration into the subgrade. In BMP 9.7, as with other BMPS with underdrains, the intent of the filter fabric for the “under drained
BMP” is as noted in the BMP 9.7 – “Filter fabric is required along the sides and the bottom of the system to prevent migration of fines from the surrounding soil”. Frey indicates that the impermeable liner under the filter fabric achieves the same requirement and in addition prevents infiltration of fines. ELM/Frey reads the BMP Manual to allow an impermeable liner in place of the filter fabric to achieve soils separation and prevent infiltration.

8. The inverts of the outlet pipes shown on the Retain-it system component table on Sheet C-402 are located below the bottom of the Retain-it system. In addition, some of the orifice/weir elevations are located at the same elevation of the system bottom. The plans and drainage calculations should be revised. Also, spot elevations should be added within each retain-it system and at each corner.

Response by ELM/FREY – The floor of the Retainits are graveled so the outlet structure, when placed, can be located so that the orifices or weirs are at the required elevations. Details will be to be added to the future plan revision to clarify.

9. The required minimum cover for the proposed Retain-it structures should be provided.

Response by ELM/FREY – The systems are designed for a minimum of 1 foot of cover, and information from the Retainit manufacturer will be supplied to that end and included in a future revision to the plan.

10. Based on the proposed spot elevations shown on Sheet C-900 for the handicap parking located near the existing building, it appears that there will be ponding within the handicap spaces. The grading plan should be evaluated.

Response: The grading will be reviewed and adjusted as necessary on final plans as a condition of final approval.

11. The existing storm profile on Sheet C-401 should include the length and slope of all pipes.

Response by ELM/FREY – there is a table on Sheet C-401 adjoining the profile that provides that information.

12. The proposed storm profile has a low point at station 4+85. Clarify how the stormwater will be collected.

Response by ELM/FREY – the low point is along the actual pipe, the site cross-drains that area to inlet 4PGP2, as shown on Sheet C-402.

13. The geopave systems located along the proposed storm profile should be added to the profile.

Response by ELM/FREY- The elevation, locations and profiles of the Geopave systems will be added to Sheet C-401 in a future plan revision to show that the bottoms of the Geopaved areas are all above the crest of the underlying pipe.
14. The proposed concrete encasements should be shown on the proposed storm profile.
   Response ELM/FREY – Only one encasement/cross over was required, and it is shown on Sheet C-401 in plan and profile.

15. Dimensions and side slopes should be added to the proposed infiltration basin section detail on Sheet C-403.
   Response: The requested information will be added to final plans as a condition of final approval.

16. An emergency spillway should be added to the proposed infiltration basin on Sheet C-403 in accordance with the BMP Manual. The construction detail should also be provided.
   Response: An emergency spillway is indicated on the plans near North Avenue. Detail of the spillway will be provided on final plans as a condition of final approval.

17. Based on the proposed grading on Sheet C-403, stormwater runoff from the south portion of the proposed driveway on Lot 1299A will sheet flow to Lot 1309, Block 8. However, the drainage calculations assume that the entire east section of site will be collected and infiltrated in the proposed infiltration basin. The grading plan and report should be revised.
   Response: If the reviewer’s response is understood correctly, we note there is about a 10-foot section of the North Avenue access road that drains back to lot 1309. Including this area is insignificant in the calculations. It is our opinion that this area creates an insignificant and de minimis volume of runoff. The correction can be made as a condition of final approval.

18. Profile and cross sections of the proposed driveway on Lot 1299A should be provided. The proposed infiltration basin should be shown on the cross sections.
   Response: The requested information will be added to final plans as a condition of final approval.

19. The Stormwater Operations and Maintenance Manual (O&M) for Lot 1299A 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.
   Response: The requested document will be provided as a condition of final approval.

20. Drainage Report for Lot 1299A, Block 8:
   a. Time of concentration (Tc) of 10 minute has been assumed. The drainage report should include a calculated Tc.
      Response: The requested information will be provided as a condition of final approval. Note that this is a small drainage area and computed times will be less than 10 minutes; thus, the accepted minimum time of 10 minutes was utilized.
b. Per the hydrology calculations, to verify that the a 3.3x Tc duration produces the critical basin volume, please provide the duration analysis.
   **Response:** The requested information will be provided as a condition of final approval.

c. The runoff coefficients for the drainage calculations should be in accordance with NJAC 5:21 Table 7.1
   **Response:** The requested information will be provided as a condition of final approval.

d. The drainage report should address the potential for groundwater contamination.
   **Response:** The requested information will be provided as a condition of final approval.

e. The proposed runoff reductions don’t comply with the requirements at N.J.A.C. 7:8.
   **Response:** It is not clear how the runoff reductions are not met and clarification is requested. Please note, the proposed system will infiltrate 100 percent of the collected runoff from the access road.

f. A groundwater mounding analysis should be submitted for the proposed infiltration basin in order to evaluate the hydraulic impacts on the groundwater table.
   **Response:** The requested analysis can be provided as a condition of final approval.

g. Soil test for the proposed infiltration basin should be submitted in accordance with NJDEP BMP manual.
   **Response:** The requested soil testing can be provided as a condition of final approval.

h. The hydrafloow IDF curve report should be added to the drainage calculations. The rainfall intensity curves for Rational Method should be based on Figure 5-4 of the BMP Manual or local rainfall frequency data from NOAA.
   **Response:** Table 5-4 of the NJDEP BMP indicates the 1975 Trenton rainfall curves. The submitted report utilized more current data.

i. The required TSS removal rate calculations and drain time in accordance with the BMP Manual should be included in the drainage report.
   **Response:** The requested information will be provided as a condition of final approval.

j. The water quality calculations should be added to the drainage report.
   **Response:** The requested information will be provided as a condition of final approval.

k. The drainage area for hydrograph 4 doesn’t match with the area on the drainage plan. Calculations should be provided for all drainage areas shown on the drainage plans.
   **Response:** The requested information will be provided as a condition of final approval.
1. The infiltration basin must be designed to safely convey overflows to downstream drainage systems. The design of any overflow structure must be sufficient to provide safe, stable discharge of stormwater in the event of an overflow in accordance with the BMP Manual. The drainage report should be revised to provide emergency spillway calculations.
   Response: The requested information will be provided as a condition of final approval.

m. Section IV.c “Site Surface Water Management” indicates that a 15” RCP connects from an A-Inlet on Lot 1699.D to the stormwater line in the alley, while the plans show 18” pipe. The report and plans should be revised for consistency.
   Response by ELM/FREY- Information will be reviewed and any corrections required will be provided in a future revised plan.

21. A Copy of the sewer video that was conducted on the property should be submitted.
   Response: The requested information will be provided as a condition of final approval.

22. The invert out of the upstream LID for the existing 6” pipe along the south property line is located at elevation 10.42 while the downstream invert is at elevation 13.89 or 3.42 feet higher. The boundary survey and plans should be reviewed.
   Response: The survey information has been reviewed. The enclosed updated survey represents the conditions as determined by the field survey and sewer videos.

23. The existing storm manhole along the south property line near the existing building on Lot 1699.C shows an invert out for a 4” pipe, while the downstream LID has an invert in from a 6” pipe. The pipe size and type should be clarified.
   Response: The survey information has been reviewed. The enclosed updated survey represents the conditions as determined by the field survey and sewer videos. As stated in response to a prior comment, the updated survey provided includes all information as found in the field to the best extend practical and reasonable. Considerable time and expense were incurred in determining both on-site and off-site utility structures. This is an older system so anomalies and uncertainties are to be expected. All information as best can be determined has been provided.

24. The location of the existing 4” pipe that discharge into the existing inlet located near the south west corner of the existing building on Lot 1699.C shown be shown on the survey and plans.
   Response: See response to comment 23 above.

25. Topography information should be added to the boundary survey.
   Response: An updated survey has been provided with this submission providing information previously omitted.
26. Note #6 indicated that the original survey is signed in blue ink. However, the signed and sealed boundary survey was submitted with black ink. The note should be revised, or the original survey signed with blue ink and sealed should be submitted.
   Response: An updated survey has been provided that addresses this comment.

27. Note 1 on Sheet C-100 indicates that the existing conditions is based upon a survey provided by Barry Isett & Assoc. Inc, dated 6/5/15, latest revisions 1/28/20. However, Sheet C-100 shows additional information not shown on the boundary survey. The boundary survey should be revised to include all the additional information on the civil plans related to the existing conditions.
   Response: An updated survey has been provided with this submission providing information previously omitted.

28. The information for the existing inlet located near the north corner of the existing building in Lot 1699.D should be provided in the boundary survey and plans.
   Response: There is no inlet in the location described under this comment.

29. The inverts of the existing sanitary sewer system should be added to the survey and plans.
   Response: An updated survey has been provided. All information as best can be determined has been provided.

30. 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 applicant will submit revised plans as a condition of final approval. The revised plans and reports will be accompanied by a point by point response letter.

CITY ENGINEERING REVIEW DATED MARCH 18, 2020

Drainage Report for Block 8, Lot 1299.A

- Provided (sic) the basis for using a “C” value of 0.35 for unimproved areas.
  Response: The site is unimproved open and grassed. Runoff coefficients can range from 0.25 to 0.60 for B and C soils. For the area of the lot that will remain undisturbed and not drain into the proposed basin, the coefficient is irrelevant as the condition of the lot does not change from pre to post development. The area of the lot that will be disturbed, not paved, and contribute to the basin will be restored with topsoil and seed. In this case, the 0.35 coefficient was used and is a typical value used for lawn or landscaped areas.
• Soil Permeability Testing shall be completed to determine the viability of an infiltration basin for stormwater management.
  Response: The requested soil testing can be provided as a condition of final approval.

• The drain down time for the basin has not been calculated.
  Response: The requested information will be provided as a condition of final approval.

• The report does not contain a statement regarding compliance with groundwater recharge requirements.
  Response: The requested information will be provided as a condition of final approval.

• Water quality was not discussed in the stormwater management report. The increase in of more than one-quarter acre of impervious coverage requires water quality to be addressed.
  Response: The requested information will be provided as a condition of final approval.

• A routing schematic should be added to the Hydrograph Report. The progression of the hydrographs is unclear.
  Response: The requested information will be provided as a condition of final approval.

• Verification that the critical storm duration is being used to calculate the basin volume shall be provided.
  Response: The requested information will be provided as a condition of final approval.

• It does not appear that a 50% reduction of the 2-year storm is being met.
  Response: It is not clear how the runoff reduction is not met and clarification is requested. Please note, the proposed system will infiltrate 100 percent of the collected runoff from the access road.

• IDF Curves from NOAA Atlas 14 for Newark Airport shall be used in the analysis.
  Response: This comment is in conflict with HCl reviewer comment 20h above.
Drainage Report for Block 8, Lot 1699.C & D

- The stormwater management plan needs to comply with the required pre-construction peak runoff rate reductions for the 2, 10 & 100 year return periods.
  Response by ELM/FREY – Will clarify the reductions in a future plan revision as the report indicates only the 2-year storm did not meet the reduction. The design had to take into account the current flows off the site to the north (NJDOT) and east (SOMET TIRE) are being contained on the property in the developed conditions. In addition, with the inclusion of lot C and its existing flows the design had to prevent additional backflow (a current condition) in the storm drain on the south side that drains Lot C, thus the overage for the 2-yr event.

- No calculations or verification documentation was provided related to the TSS removal discussed in the report text. The applicant must document that they are meeting the water quality criteria required in the Storm Water Control Ordinance.
  Response by ELM/FREY – The implementation of NJDEP BMP 9.7 implies 80% reduction in the design parameters listed with that BMP.

- Any existing sewers or drains either inside buildings to be demolished or in parking areas that will no longer be needed must be properly sealed and abandoned.
  Response by ELM/Frey – Existing stormwater piping located outside the original building envelope to be replaced by proposed new piping will either be removed or properly sealed and abandoned/plugged. Any other potential drains within the original building envelope will be addressed by applicant.

- Proposed development shall comply with applicable NJDEP Regulations N.J.A.C. 7:14A-22.
  Response: N.J.A.C. 7:14A-22 “Treatment Works Approvals, Sewer Bans, Sewer Ban Exemptions” relates to sewer capacity and wastewater/sewerage issues. It is our opinion the regulations within NJAC 7:14 are not applicable to this application.

- Proposed development shall comply with applicable Joint Meeting of Essex and Union Counties Rules and Regulations as modified July 17, 2010, or latest revision.
  Response by ELM/FREY – The site complies with Section 2.4 for stormwater.

- All applicable permits shall be obtained from this Department prior to construction.
  Response: The applicant agrees to this condition.

- Spring Street is U.S Highway #1 & 9, consult the NJDOT for any additional requirements.
  Response: The applicant agrees to this condition.
• All site work within the public right-of-way shall comply with the latest NJDOT details and specifications.
  
  **Response:** The applicant agrees to this condition.

• An easement will need to be prepared for the proposed North Avenue East access driveway.
  
  **Response:** The applicant agrees to this condition.

Should you have any questions or require additional information, 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