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MEMO TO: Borough of Sayreville Planning Board
FROM: Jay B. Cornell, P.E., Borough Engineer's Office *JBC*
DATE: August 17, 2022
SUBJECT: Main Street South I LLC/Main Street South II LLC Major Site Plan
Block 249, Lot 1; Block 250, Lot 1; Block 251, Lot 1
Our File No. PSAP0249.05

In accordance with your authorization, our office has reviewed the major site plan submitted for the above referenced project as prepared by Menlo Engineering Associates and dated February 12, 2021 and last revised March 28, 2022 and offer the following comments:

1. The subject application was recently determined to be complete by the Board's Technical Review Committee. We would refer to the report of the Board Planner for his review of the variances, conformance schedule, and zoning ordinance associated with this project.
2. The subject site is located in the Fulton's Landing Redevelopment Area on the site of the former Linden Sand Mining Site. The Fulton's Landing Redevelopment Area is composed of three (3) parcels which total approximately 156 acres.

As the Planning Board is aware, the Fulton's Landing Redevelopment Plan was adopted in by the Mayor and Council in June 2019 in order to resolve the ongoing litigation relative to the zoning of the property. A copy of the Fulton's Landing Redevelopment Plan is attached for the information of the Planning Board.

Since the subject application is located within a Redevelopment Area, Borough Ordinance requires the execution of a Redevelopment Agreement between the Applicant and the Sayreville Economic Redevelopment Agency (SERA) before the application can be deemed complete by the Planning Board. This Redevelopment Agreement has recently been executed by both parties. A copy of this Redevelopment Agreement along with a copy of a Resolution from SERA approving the submitted plans are attached for the information of the Planning Board.

3. For the information of the Board, a number of applications have been submitted over the years for the development of this property. Below is a summary of the various applications.
 - a. Crossman Industrial Park – In 1988 an application was approved for the development of 1,162,000 sf office/warehouse (962,000 sf warehouse and 200,000 sf office) in five (5) buildings on a 72 acre portion of the property. This project was never constructed and a request for a time extension was dismissed by the Board in 1997. Copies of the Resolution of Approval as well as the Resolution of Dismissal for this project are attached for the information of the Board.
 - b. Wakefern Food Corporation – In 1989 an application was submitted for the development of one (1) office/warehouse building with an area of 705,230 sf. This application was not approved by the Board.



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- c. Fulton's Landing – In both 2007 and 2008 applications were denied for a major subdivision to construct 207 single family homes on a 99.54 acre portion of the property. Copies of the Resolutions for these applications are attached for the information of the Board.
 - d. Crossman Industrial Development LLC – In 2013 an application was approved for the development of 610,496 sf of office/warehouse in three (3) buildings on a 57.43 acre portion of the property. Copies of the Resolution of Approval for this project as well as copies of Resolutions associated with off-tract improvements are attached for the information of the Board.
4. The Applicant is seeking Preliminary/Final Major Site Plan approval for the construction of three (3) buildings totaling 1,780,590 square feet with 1,690,590 square feet of warehouse space and 90,000 square feet of office space on the 156 ± acre site located on the south side of Main Street in the W-D Warehousing and Distribution Redevelopment Zone.

In addition to the proposed warehouse structures the Applicant is proposing on site improvements including parking, loading, storm drainage, buffers, lighting and internal circulation. Off-site improvements will include a traffic signal on Main Street at the site access across from Kimball Drive East. Off-site improvements will also include widening and restriping of a portion of the Main Street frontage.

The Applicant is proposing to construct three (3) warehouse buildings each proposed to contain accessory office. The breakdown of building square footage is as follows:

<u>Building</u>	<u>Warehouse</u>	<u>Office</u>	<u>Total</u>
Building A	816,650 sf	36,000 sf	852,650 sf
Building B	651,940 sf	36,000 sf	687,940 sf
Building C	<u>222,000 sf</u>	<u>18,000 sf</u>	<u>240,000 sf</u>
	1,690,590 sf	90,000 sf	1,780,590 sf

The size of the proposed buildings conforms with the Redevelopment Plan.

The permitted uses as listed in the Redevelopment Plan within the W-D Warehousing and Distribution Redevelopment Zone include:

- Warehouse/Storage Facility
- Distribution Center/Fulfillment Center
- Transload Facility
- Cold Storage Warehouse
- Lighting Manufacturing
- Office

The current Plan shows three (3) warehouse buildings with accessory office space. The Applicant's proposal complies with the Permitted Uses in the Redevelopment Plan. A note is provided on the Overall Plan indicating the storage and/or stacking of shipping containers is



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not permitted on the property. This reflects the specifically prohibited use statement from the Redevelopment Plan.

The bulk requirements of the W-D Warehousing and Distribution Redevelopment Zone are as follows:

	<u>Required</u>	<u>Proposed</u>
Min. Lot Area	40 Acres	156.36 Acres
Min. Front Setback	200'	393'
Min. Side Setback	300'	302.46'
Min. Rear Setback	200'	208'
Max. Building Coverage	30%	26%
Max. Lot Coverage	80%	55%
Max. Building Height	50'	50'

The Plan satisfies the bulk criteria established in the Redevelopment Plan for the W-D Warehousing and Distribution Redevelopment Zone

Parking requirements are established in the Redevelopment Plan for the W-D Warehousing and Distribution Redevelopment Zone for automobiles at a rate of one space per 5,000 square feet of building gross floor area for warehouse/distribution/light manufacturing uses and at a rate of one space per 500 square feet of gross floor area for office as a principal use. 1,690,590 square feet of warehouse and 90,000 square feet of office space as the principal use result in a parking requirement of 518 parking stalls. The Plan shows a total of 822 parking stalls for an overage of 304 parking stalls. The Site Plan indicates 262 of the parking stalls will be banked (not to be constructed unless it is determined that they are needed) with 590 parking stalls to be constructed initially providing for a 72 stall surplus of what is required by the Redevelopment Plan. The provided parking satisfies the parking requirements of the Redevelopment Plan for number and size, however, the necessity for the banked parking and significant parking overages will need to be addressed.

Parking stalls must be a minimum of nine (9') feet by eighteen (18') feet. The Plan indicates conformance with this requirement.

Truck parking is required at a rate of 1.5 truck parking stalls per loading dock. 323 loading docks are proposed thereby requiring 485 truck parking stalls. 768 truck parking stalls have been proposed.

Loading docks are to be provided at a dimension of fourteen (14) feet in width and fifty-five (55') in length with a clearance of fifteen (15') feet. The Plan indicates the loading docks will be fourteen (14') feet by sixty (60') feet with a minimum fifteen (15') foot clearance. This is in conformance with the requirements of the Redevelopment Plan.

Truck parking stalls are to be provided at a dimension of ten (10) feet in width and fifty-five (55') in length with a clearance of fifteen (15') feet. The Plan indicates the truck parking will be twelve (12') feet by sixty (60') feet with a minimum fifteen (15') foot clearance. This is in conformance with the requirements of the Redevelopment Plan.



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The Redevelopment Plan requires several on-site and off-site improvements relating to traffic and circulation. Main Street is to be widened along the property frontage to provide dedicated turning lanes at each intersection and access drive. Additionally, a traffic signals are to be installed at the Kimball Drive East and West intersections with Main Street and truck traffic is to be restricted to and from the west of the site.

The Site Plan as submitted reflects improvements along the entirety of the Property's Main Street frontage. Widening, a 360 foot acceleration lane, and sidewalks are noted on the plan. Notation indicates the roadway widening and proposed culvert widening will require approval of the County and NJDEP. The Main Street improvements along the entire property frontage is in conformance with the requirements of the Redevelopment Plan.

A note has been provided on the Plan indicating a traffic signal is proposed at the Main Street, Kimball Drive East and West intersection. Details of the traffic signal configuration have not been provided however, the intent satisfies the conditions of the Redevelopment Plan.

The Redevelopment Plan contains specific buffer requirements for the north and west boundaries of the tract. The buffer requirements include the preservation of existing vegetation on the north portion of the site between the development and Main Street. The Redevelopment Plan also requires that a minimum of 100 feet of existing vegetation be preserved and supplemented with additional plant material on the north side of the site. Greater than 100 feet of width for the buffer is shown. The buffer details satisfy the intent of the Redevelopment Plan.

Along the west side of the property where the site abuts an existing residential development the Redevelopment Plan requires the installation of 150 foot vegetative buffer. The necessary buffer width has been indicated on the Plan with a triple row of evergreens and detailed cross sections illustrating the buffering upon planting and ten (10) years have been provided. The berming and landscape buffer details satisfy the intent of the Redevelopment Plan.

The Redevelopment Plan indicates that landscaping shall be provided around the perimeter of all parking areas and should include a mix of evergreen and deciduous shrubs and trees. Shade trees should be planted a minimum of 50 feet on center. Planting and landscape buffer plans have been provided satisfying the planting provisions of the Redevelopment Plan.

5. The executed Redevelopers Agreement with SERA contains specific conditions related to the phasing /construction of the project and the issuance of building permits and certificates of occupancy. These items are noted below:
 - a. The Redeveloper must get Borough Site Plan approval and County approval for road and culvert widening prior to any building permit or construction start.
 - b. One building can be issued a building permit and start after all approvals have been received with exception to the wetlands and other DEP approval for Main Street and culvert widening.
 - c. No additional trees can be removed west of Kimball Drive East including the area for the new drive at Kimball Drive West until the western most building is



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- completed. The only exception to this condition are those trees that are necessary to be removed for the widening of Main Street.
- d. The berm and landscaping along the western boundary must be completed before the CO is issued for the western most building.
 - e. Complete applications for DEP approval of the widening of the culvert and Main Street must be submitted to the DEP prior to a building permit being issued for the first building. Prior to submission to the DEP application with wetlands remediation plan to be reviewed by CME.
 - f. Construction of the widening of Main Street from the western property line to the wetland area near the culvert must be completed prior to the CO for the first building and every effort should be made to preserve trees including the construction of retaining walls.
 - g. The NJDEP approval for widening of Main Street and the culvert near the Eastern end of the site must be obtained prior to the issuance of a building permit for the second building and construction must be completed prior to issuance of a CO for the second building.
 - h. The construction of a berm or sound wall located to the North of the interior northern most roadway from about 500 feet West of Kimball Drive East to about 50 feet west of the eastern most exit must be completed before a CO is issued for the first building with the exception to the area containing the entrance road.
 - i. The construction of the 12 inch diameter water main from Lakeview Drive to Main Street shall be completed prior to a CO being issued for the first building in order to provide necessary fire flows to the site.
 - j. The Loop Road system along the west, south and eastern area of the site shall be completed prior to the issuance of a CO for the first building.
 - k. Kimball Drive East traffic signal to be operational before the first CO is issued.
 - l. The tree removal and construction of Kimball Drive West signal along with west entrance road to be completed after landscaping is completed for western most building and prior to obtaining a CO for the center building.

It would be recommended that these conditions be included in any action taken by the Planning Board.

6. Our office has prepared the attached "Technical Engineering Review" based on the plans submitted. The comments contained in this review should be addressed in further detail by the Applicant's Engineer.

At this time, it would be the recommendation of our office that any action taken by the Board on the subject application be contingent upon the resolution of the aforementioned items.

Should you have any questions concerning this matter, please do not hesitate to contact this office.

JBC/blr

cc: All Board Members
Jeffrey Lehrer, Esq.
Menlo Engineering



**BOROUGH OF SAYREVILLE
MAIN STREET SOUTH I & II, LLC MAJOR SITE PLAN
- TECHNICAL ENGINEERING REVIEW -**

Our File No.: PSAP0249.05/600.01

A. SITE GRADING AND GENERAL COMMENTS

1. The Applicant will be required to obtain the following governmental approvals necessary to implement this project:
 - a. Middlesex County Planning Board Approval,
 - b. NJDEP – Bureau of Safe Drinking Water Permit,
 - c. NJDEP – Treatment Works Approval,
 - d. NJDEP – Construction Activity Stormwater Discharge Permit,
 - e. NJDEP – Dam Certification Letter,
 - f. NJDEP – Flood Hazard Area Verification,
 - g. NJDEP – Flood Hazard Area Permit,
 - h. NJDEP – Wetlands Letter of Interpretation,
 - i. NJDEP – Wetlands General Permit,
 - j. Conrail – Railroad Utility Crossing,
 - k. NJ LSRP – Response Action Outcome (Site Remediation),
 - l. Sayreville Economic Redevelopment Agency,
 - m. Borough of Sayreville – SESC Plan Certification,
 - n. Borough of Sayreville – Soil Fill Permit,
 - o. Borough of Sayreville – Tree Preservation Permit.
2. An Engineer's Bond Estimate for the proposed site improvements should be submitted for the project
3. The aesthetics of the proposed buildings to be constructed should be reviewed by the Board.
4. The proposed phasing of the project should be further reviewed with the Board.
5. The locations of any proposed individual wall signs and any building ground signs for this project should be shown on the plans. In addition, construction details for any proposed signs should be provided on the plans.
6. Fire lanes and striping are subject to the approval of the Fire Marshal.
7. In accordance with the Redevelopment Plan, a Truck Turning Movement Plan shall be submitted for the project. The Plan shall verify that adequate turning movement radii is available at both driveway intersections along Main Street and along all circulation aisles throughout the site. This document should be provided for review.



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8. The quantity of proposed truck parking spaces indicated in the Redevelopment Zone Data Table (768) is inconsistent with the quantity indicated on the plans (445), and should be revised accordingly.
9. The quantities of truck parking spaces for each row, as indicated on the Geometry Plans, are inconsistent with the quantities of spaces counted, and should be revised accordingly.
10. The height (18 ft.) and material of the proposed sound barriers should be provided on the Geometry Plans.
11. Our office does not recommend the use of treated wood for the sound barriers. A more durable, low maintenance material such as concrete should be utilized.
12. The proposed limits of the sound barriers, as indicated on the Geometry Plans, should be revised for consistency with the limits proposed in the noise impact study.
13. Pedestrian crosswalk striping should be provided across Main Street at both Kimball Drive/Site Driveway signalized intersections.
14. The plans should be revised to indicate the locations of all existing and proposed easements on the subject site. Metes and bounds descriptions for any proposed easements should be submitted to our office for review.
15. The Applicant must arrange with all applicable utility companies for the installation of their underground supply lines and service connections. A written statement from each serving utility company must be submitted to our office, which shall evidence full compliance with Borough Ordinance requirements.
16. Additional proposed spot elevations should be provided at the following locations in order to verify minimum required slopes and positive drainage patterns:
 - a. At all high points and low points in drainage (indicate ridge lines),
 - b. Between two (2) contours with the same elevations,
 - c. At all flush curb cuts for drainage,
 - d. At the PC and PT of all curb radii,
 - e. At changes in direction of all curbing,
 - f. At all corners of the buildings,
 - g. Along the loading dock sides of the buildings.
17. Elevations should be indicated for all proposed and existing contours on the subject site.
18. The proposed grading within a number of a lawn areas results in slopes that are less than the minimum 2% required by the Borough Ordinance and should be further reviewed and revised accordingly.



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19. The proposed grading within a number of paved areas results in slopes that are less than the minimum 0.75% required by the Borough Ordinance and should be further reviewed and revised accordingly.
20. There are a number of proposed spot elevations and contour lines that are inconsistent with the proposed grading in the immediate areas for same and should be further reviewed and revised accordingly.
21. The dimension plans should be revised to provide additional width dimensions for all roadways, driveways, access aisles, and landscaped islands throughout the site.
22. The dimension plans should be revised to provide additional offset dimensions from the buildings to proposed lot lines and proposed curb lines.
23. A General Note should be added to the plan confirming that all site improvements will be in accordance with the Borough of Sayreville construction standards, where applicable.
24. The results of the Noise Study and the manner in which noise issues will be mitigated should be further discussed with the Board.
25. The Applicant's Engineer should further discuss with the Board any existing environmental conditions on the property and the work required to bring the project into compliance with the NJDEP requirements. A detailed Environmental Remediation Plan as required by the Redevelopment Agreement must be provided prior to any work commencing on the project.
26. A detailed Geotechnical Report for the development of the project was not provided. The Geotechnical Report that was submitted with the 2013 application indicated that test pits excavated at the site have revealed uncontrolled fills ranging from 2' to 23' throughout the site. This uncontrolled fill was determined not to be suitable to support the proposed building foundation or floor slabs. In order to address this problem, the Report recommended that the excavated materials be removed and replaced or the buildings would have to be supported on piles. The Report also mentioned the possible use of dynamic compaction to consolidate the material. That method would not be recommended due to the potential impacts to the surrounding residential developments. It therefore would be recommended that a detailed Geotechnical Report be prepared for the development of this project. This Report should be submitted prior to the start of any construction work on the project and should include a vibration monitoring program in order to confirm no adverse impacts to the residential development located to the north, south, and west of the project. The use of dynamic compaction should not be permitted in the development of this project.

B. SANITARY SEWER SYSTEM

1. The Utility Plans should be revised to indicate the locations of all proposed sanitary sewer laterals, including pipe size, material, slope, upper and lower invert elevations, and cleanout locations.



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2. The Sanitary Sewer Report should be revised to include calculations that demonstrate the adequacy of the existing sanitary sewer system downstream of the proposed site improvements to accept the increase in sewage flows. The calculations should include wastewater flow quantities from all existing development that is tributary to the downstream system. The Applicant will be required to pay for any downstream improvements that may be necessary to service this project.
3. Information should be provided for the proposed connection to the existing manhole and the proposed manhole directly upstream, located directly adjacent to the existing sanitary sewer crossing under main Street.
4. The size of the proposed sanitary sewer main extension and laterals to service the proposed buildings should be as approved by the Supervisor of the Borough's Sewer Department. A General Note indicating this requirement should be added to the plans.

C. WATER DISTRIBUTION SYSTEM

1. The Water System Design Report should be revised to include an estimate of the required fire flows for the proposed buildings. In addition, results of a current hydrant flow test and calculations that demonstrate that the required fire flows can be met by the existing Borough water system should also be included in the report. The calculation of needed fire flows for the proposed building should conform with the Insurance Services Office (ISO) method.
2. Our office would recommend that the Developer be responsible for any and all improvements/upgrades to the Borough water distribution system that may be required as a result of the proposed project.
3. The locations of all proposed domestic and fire protection service lines should be provided on the Utility Plans, including pipe sizes, material, valve box locations, etc.
4. The location of all required fire department connections should be provided on the plan. All fire department connections should be located within 25 ft. of a fire hydrant.
5. The design and adequacy of fire suppression systems, hydrant locations, and the delineation of fire lanes shall be subject to the review and approval of the Borough Fire Official. A note should be added to the plans indicating these requirements.
6. A concrete cradle detail in accordance with Borough typical details must be provided on the plans.
7. At all utility's crossings, clearance between pipe must be noted. If minimum clearance between pipes is not achieved the use of cradles or encasements should be provided.
8. The proposed method of connection to the existing water main should be approved by the Supervisor of the Borough Water Department. A General Note indicating this requirement should be included on the plan.



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9. The sizes of the proposed building water service lines should be as approved by the Borough Water Department Supervisor. A General Note indicating this requirement should be included on the Plans.
10. The installation of water meters should be reviewed and approved by the Supervisor of the Borough's Water Department.
11. An enlarged plan and detail should be provided for the proposed 12" diameter water main crossing under the Conrail railroad tracks. The water main crossing shall be subject to the review and approval of Conrail

D. STORM DRAINAGE SYSTEM

1. The SWM report must to revised to include the following information:
 - a. Address of the property,
 - b. Description of the proposed project,
 - c. Reconstruction of the facilities/utilities, if any,
 - d. The total area of disturbance,
 - e. The areas of the pervious and impervious surfaces,
 - f. Methodology of the scheme,
 - g. Water Quantity Control section,
 - h. Water Quality Section,
 - i. Groundwater Recharge,
 - j. Soil Erosion and Sediment Control,
 - k. FEMA Map,
 - l. All the attachment, e.g. 'Annual Groundwater Recharge Analysis",
 - m. Page numbers.
2. A separate Drainage Plan drawing showing all the drainage facilities, piping, pervious/impervious areas and contributing area of each basin must be prepared and submitted. Information such as Inlets and manholes types, numbers and locations must also be shown on the drainage plan.
3. The SWM report should provide the pervious and impervious areas and peak flows from each section of the existing and proposed drainage areas. The narrative of the report must include the references and calculations of the CN value, Time of concentration in Hydrographs.
4. Existing Drainage Area Plan: The following details must be provided on the plan:
 - a. The boundaries of the total 156.4 acre tract area,
 - b. Pervious and Impervious areas breakdown in each drainage area,
 - c. Direction of the Flow Path,
 - d. Sheet flow, Concentrated flow and Channel flow lengths with slopes,
 - e. CN value of each type of cover.



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5. The Existing and Proposed conditions Hydrographs will be evaluated after verification of the Time of Concentration calculations.
6. Proposed Drainage Area Plan PDA-2: The drawing is listed in Table of Contents of the SWM report but not available. The drawing must be submitted for review.
7. An overall Drainage Plan showing all the proposed retention Basins, Bio-retention Basins, drainage piping and drainage area of each basin should be prepared and submitted. Each facility and structure should also be labelled on the overall Drainage Plan.
8. In accordance with NJDEP requirements, the freshwater wetlands and water boundary lines shown on the plans should be labeled with the file number and the note: "Freshwater Wetlands/Waters Boundary Line as verified by NJDEP".
9. The Applicant's Engineer should provide a written statement certifying that any areas within the development which shall be disturbed during development shall contain slopes upon completion of the development as required by the Sayreville Borough Land Use Ordinance.
10. The location of all soil pits conducted within the infiltration area of the proposed infiltration basin are shown on the Grading Plans, however no soil test reports were submitted. Soil tests including ground elevation, seasonal high groundwater elevation, soil permeability rate, and elevation of the permeability test. Soil tests and permeability rate reports shall be submitted.
11. In accordance with BMP Manual requirements, the seasonal highwater table (SHWT) must be at least 2 feet below the lowest extent of the basin bottom. All basins must meet the minimum required separation.
12. In accordance with BMP Manual guidelines, no standing water may remain in a basin 72 hours after a rain event. Permeability rate test results must be submitted to verify the drain time calculations of water quality storm in the SWM report.
13. Underground detention basins 3B-1, 3B-2, and 3B-3 should be revised to provide a minimum slope of 0.5% toward the outlet structure to ensure the basin will drain completely after every storm event. The basins are not in accordance and should be revised accordingly.
14. The details including cross-sections of the weirs, orifices and outlet pipes of all the basins should be provided in construction details.
15. The design of the Emergency Spillway, Rip-Rap, and Preformed Score Hole is provided in the SWM report; however, their locations are not shown on the plans. Each structure and drainage facility must be shown on the plans and construction details provided.
16. In accordance with Borough Ordinance requirements, the minimum elevation of the settled embankment of a basin shall be one foot above the maximum water surface elevation in the basin,



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with the emergency spillway flowing at the design depth. The proposed infiltration basin must comply with the requirement.

17. In accordance with Borough Ordinance requirements, seepage along pipes extending through the embankments shall be control by use of a filter and drainage diaphragm, unless it is determined that anti-seep collars will adequately serve the purpose. The Drainage Report must be revised to address this issue for the infiltration basin and provide construction details of any structure needed.
18. The outlet structure for the basins equipped with weir, orifice and bottom drain pipe must show calculations for the time duration to drain the permanent pool of water.
19. In accordance with BMP Manual requirements, post-construction testing must be performed on the as-built infiltration basin in accordance with the Construction and Post-Construction Oversight and Soil Permeability Testing section 4 of Chapter 12 of the BMP Manual. A note regarding as-built testing must be provided on the plans.
20. The Applicant's Engineer should verify that runoff from storms exceeding the 25-yr storm will drain overland to proposed infiltration basin. For those areas where runoff will not drain overland to the infiltration basin, conveyance pipes must be sized for the 100-yr storm event.
21. All proposed roof leader drains should be shown on the utility plan to ensure consistency with the stormwater management plan. Pipe slope and diameter of the roof leader drains must also be provided on the plans.
22. The Grading Plan must be revised to provide spot elevations along the top of berm and invert elevation for the proposed emergency spillways at each basin.
23. Construction details for underground detention basins must be revised to show the elevation of the seasonal highwater table and the test pit used to determine the water table. A 1-ft minimum separation must be provided between the bottom of stone and the water table. The detail should be revised accordingly.
24. Structural calculations for any oversized drainage structures and the outlet structures should be provided prior to construction. A note should be added to the plan indicating same.
25. The Utility Plans should be revised to provide grate, rim, and invert elevations for all proposed storm sewer structures.
26. The Stormwater Operations and Maintenance Manual (SOMM) must include a brief discussion about how each proposed BMP works with illustrations.
27. The SOMM indicates the approximate time it would normally take to drain the maximum design storm (water quality) runoff volume below the bottom of the basin. If significant increases or decreases in the normal drawdown time are observed, the basin's bottom surface, subsoil, and both groundwater and tailwater levels must be evaluated and measures taken to comply with the maximum drain time requirements.



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28. The SOMM should be revised to require the bottom sand layer of the infiltration basin to be inspected at least monthly as well as after every storm exceeding 1 inch of rainfall.
29. The SOMM must include inspection and maintenance requirements for all the drainage facilities and devices.
30. A stormwater management facilities map must be provided in the SOMM showing the locations of the Drainage structures, Infiltration basins, Bioretention basin and MTD devices. Each structure and device must be properly labelled.
31. Emergency water surface elevations must be provided for the infiltration basin.
32. The SOMM Manual must have the following components:
 - a. BMP Overview,
 - b. Basic Design Information,
 - c. Visual Aid for Stormwater Basin Inspection,
 - d. Reference Documents,
 - e. Inspection Checklist / Maintenance Actions,
 - f. Preventative Maintenance Record,
 - g. Corrective Maintenance Record,

E. SOIL EROSION AND SEDIMENT CONTROL

1. The Soil Erosion and Sediment Control Notes should be revised to remove "Freehold Soil Conservation District" and "District" and replace same with "Borough of Sayreville" respectively.
2. Additional Soil Erosion and Sediment Control comments will be provided upon receipt of revised plans which address the above noted Storm Drainage System comments.

F. LANDSCAPING AND LIGHTING

1. The Tree Replacement Calculations should be revised to indicate the tree diameter ranges consistent with the Borough Ordinance tree diameter ranges. In addition, existing 4" diameter trees are not required to be replaced and may be removed from the calculations.
2. All deciduous trees and ornamental trees must have a minimum diameter of 3" to qualify as replacement trees. The plant schedule should be revised accordingly.
3. Evergreen trees do not qualify as replacement trees. The tree replacement calculations should be revised accordingly.
4. The tree replacement calculations should be revised to indicate one (1) additional tree for every two (2) proposed parking spaces (not 2 trees for each parking space).



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5. The quantity of parking spaces utilized in the additional replacement tree calculation should include all of the land-banked parking spaces.
6. In accordance with the Redevelopment Plan Design Standards, a staggered triple row of evergreen trees shall be provided within the 150 ft. wide buffer along the western property line. Several portions of the row of evergreens are only double rows and should be revised accordingly.
7. In accordance with the Redevelopment Plan Design Standards, a mix of deciduous trees and shrubs shall be planted along with the required staggered double row of evergreen trees within the 100 ft. wide buffer along the Main Street frontage of the property. The proposed plantings within the aforementioned buffer area do not comply with this requirement and should be revised.
8. The quantities of a significant amount of proposed landscape plantings are inconsistent between the Landscape Plans and the Plant Schedules, and should be further reviewed and revised as required.

G. PARKING AND ROAD IMPROVEMENTS

1. In accordance with the Borough Ordinance, sidewalks shall be provided between parking areas and principal structures, along aisles and driveways, and wherever pedestrian traffic shall occur. The proposed site improvements do not comply with this requirement and a waiver will be required.
2. The Pavement Section detail should be removed from the plans and replaced with the following pavement sections as required by the Borough Ordinance:
 - a. Standard Duty Pavement – 2 inches FABC-1 surface course over 4 inches bituminous stabilized base course.
 - b. Heavy Duty Pavement – 2 inches FABC-1 surface course over 5 inches bituminous stabilized base course.
3. Guiderail should be provided along roadways, driveways, etc. where warranted (insufficient clear zones, etc.).
4. The Split Rail Fence detail should be revised to provide 4500 psi concrete footings for all fence posts.
5. The following construction details should be revised to comply with the most current Borough Standard Details for same:
 - a. Standard Concrete Curb,
 - b. Hydrant Assembly Detail,
 - c. Tapping Sleeve and Valve Assembly,
 - d. Concrete Sanitary Manhole,
 - e. Concrete Storm Manhole,
 - f. Cleanout (IN-Line).
 - g. Sanitary Sewer Trench Detail,



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- h. Storm Sewer Trench Detail,
- i. Water Main Trench Detail.

6. The following additional Borough Standard Details should be provided on the Construction Detail plan sheets:

- a. Depressed Curb Detail,
- b. Water Service Connection Detail,
- c. Standard Thrust Blocks Detail,
- d. Sanitary Manhole Frame and Cover Detail,
- e. Storm Manhole Frame and Cover Detail,
- f. Sanitary Sewer lateral and Cleanout,
- g. Sanitary Drop Manhole Detail,
- h. Underground Gate Valve and Valve Box,
- i. Vertical Water Main Bend Restraint.

H. TRAFFIC

1. Our office would recommend that the trip generation estimates for the project be revised to utilize separate Warehouse and Office use trip generations which should result in a more conservative estimate of projected trip generations for the project. This method is also consistent with the parking space requirements based on the two (2) separate uses.
2. Both of the traffic signal warrant analyses (Kimball Drive East and Kimball Drive West intersections) should be revised to utilize the more conservative trip generations for separate Warehouse and Office Use.
3. The Total Site-Generated Trips entering and exiting the Main Street and White Oaks Drive intersection, as indicated on Figure 8 appear to be incorrect and should be further reviewed.
4. The Traffic Study should be revised to include comprehensive peak hour level of service analyses for all street intersections located to the east of the site that will experience more than 100 total new peak hour trips. Additional traffic counts will be required during the peak hours at the aforementioned intersections. Any improvements that may be required as a result of this project should be required to be addressed by the Applicant.
5. The Traffic Signal Warrant Analysis sheets should be revised to remove "State of Florida Department of Transportation" at the top of each sheet. The warrant analyses should be in conformance with the Manual on Uniform Traffic Control Devices.
6. The need for the proposed banked parking spaces should be further reviewed with the Board.
7. The manner in which shuttle services as required by the Redevelopment Plan will be provided should be further reviewed with the Board.



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8. The Redevelopment Plan states that “signalized intersections shall be provided to create full movement intersections at driveways proposed opposite Kimball Drive West and Kimball Drive East”. In addition the plans for the project as approved by SERA call for the installation of traffic signals at both the Kimball Drive West and Kimball Drive East intersections. However, the Traffic Study for the project only proposes the installation of a traffic signal at the Kimball Drive East intersection since the report concludes a traffic signal at the Kimball Drive West is not warranted at this time. In order to satisfy the requirements of the Redevelopment Plan, our office would recommend that preliminary design plans for this traffic signal be prepared by the Applicant along with a detailed construction cost estimate. Any underground conduit, junction boxes, etc should be required to be installed by the Applicant in conjunction with the Main Street widening work. In addition a Performance Bond should be required to be posted with the Borough by the Developer prior to the issuance of any building permits for the project in order to guarantee the installation of the required traffic signal at the Kimball Drive West intersection when it may be warranted in the future.

9. During the public hearing on the Redevelopment Plan for this property residents of Ernston Road raised concerns about the truck traffic utilizing Ernston Road to access Route 9, Route 35 and Bordentown Avenue. Requests to prohibit truck traffic on Ernston Road were raised. The Applicant’s Traffic Engineer should further discuss this issue. In addition the Applicant’s Traffic Engineer should discuss with the Board the requirements of Title 39 as they relate to establishing Commercial Motor Vehicle Restrictions on a roadway.