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MEMO TO: City of Bayonne
Planning Board

FROM: Robert J. Russo, PE, PP, CME
City Engineer's Office

DATE: January 10, 2022

RE: **AMS Equities, LLC**
Preliminary and Final Site Plan
Minor Subdivision
Report #1
Block 234, Lot 8.01; Block 467; Lot 23
Block 458, Lots 1.02, 1.03
132, 140, 154, 157-163 Avenue E
Bayonne, New Jersey
Our File: PBYP0458.06/600.01
Application # P-21-019

As per your request, this office has reviewed the following documents relative to the above referenced preliminary and final site plan application:

- Preliminary and Final Site Plan, as prepared by Dynamic Engineering, dated April 8, 2021, with latest revision date of August 30, 2021;
- Architectural Plans, as prepared by Marchetto, Higgins Stieve Architects, with latest revision date of September 27, 2021; (Revised sheets A10-A13 dated December 28, 2021 regarding Den revisions)
- Minor Subdivision Plat, as prepared by Dynamic Survey, LLC, dated July 2, 2021;
- Stormwater Management Report, as prepared by Dynamic Engineering, dated July 2021, with no revisions;
- Traffic Impact Statement, as prepared by Dynamic Traffic, dated August 16, 2018, with latest revision date of July 1, 2021;
- Environmental Impact Statement, as prepared by John McDonough Associates, LLC, dated July 13, 2021;
- Site Plan Rendering, as prepared by Dynamic Engineering, dated January 11, 2022;
- Application Forms.

The following comments are offered with regard to same:



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A. PROJECT OVERVIEW

1. The site is located on both the east and west sides of Avenue E, generally between East 16th Street and East 18th Street. The site is part of the existing Silklofts multifamily residential development which contains an existing four (4) story building with associated parking lots. The project is located on one (1) parcel on the west side and multiple parcels on the east side of Avenue E. The western site, Parcel A, contains an existing paved parking lot and consists of approximately 10,044 SF. The eastern site, Parcel B, C and D, contains an existing multi-family building, several existing dwellings, a commercial property and paved parking lots which consist of approximately 70,929 SF. The applicant is proposing to develop Parcel A with a six (6) story residential building containing 36 units and 1,530 SF of retail space. The applicant is proposing to develop Parcel B with an (18) story building containing 250 residential units, 1,975 SF of retail space and 359 parking spaces located in a multi-level automated parking garage. Parcel C and D will contain the existing Silklofts building and the existing northerly parking area. The existing Silk Lofts site contains 95 parking spaces plus two (2) Zipcar spaces of which 20 parking spaces will remain after construction located in the northern most parking area. The remaining 75 parking spaces required as part of the original approval will be provided within the proposed parking garage located on Parcel B. The applicant is also proposing a minor two lot subdivision.

We defer the review of the zoning related issues to the Board Planning Consultant except where they may pertain to engineering issues.

B. GENERAL SITE IMPROVEMENT REVIEW

1. In accordance with the Redevelopment Plan, the applicant shall provide for the installation of the necessary equipment to accomplish signal preemption for emergency vehicles at traffic signals abutting the project area. Same should be noted on the site plan.
2. In accordance with the Redevelopment Plan, all parking structures shall have adequate security provisions. The applicant should provide testimony to the Board regarding same and should indicate whether security cameras will be provided in the parking structures and around the building perimeters.
3. In accordance with the Redevelopment Plan, the designated redeveloper is responsible for any and all environmental regulatory compliance in accordance with NJDEP requirements upon property acquisition.
4. The applicant has provided plans for the temporary parking to be used by the residents during construction. The applicant should provide additional information regarding the outside mechanical parking stacker system and how they will function including location, height and any noise concerns.



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5. The applicant is proposing to provide parking for Parcel A and C within the multi-story parking garage on Parcel B. The parking spaces should be deed restricted and a copy of the deed submitted for review. In addition, the applicant is proposing Parcel D which is the northerly parking lot containing 20 parking spaces. This lot should also be deed restricted.
6. The applicant should provide testimony to the Board regarding how the shared parking will function with respect to the required retail spaces and additional 25 parking spaces required by the RDP.
7. The applicant should provide testimony regarding trash and recycling facility operations.
8. This office recommends that the applicant mill and pave Avenue E along the property frontages from the centerline of the pavement to the proposed curblines. Same should be noted on the site plans.
9. The site plan should be revised to delineate existing striping on Avenue E along the project limits. There is existing striping prohibiting parking in front of Block 467 Lot 24. Same should be shown on the site plan. In addition, this parking striping should be removed creating additional parking spaces. Same should be noted on the site plan.
10. Two (2) existing ADA accessible parking spaces are being removed from the existing parking lot that services Parcel 'C'. The applicant should provide testimony regarding where these spaces are being relocated.
11. The applicant is removing an existing bike rack from the existing parking lot that services Parcel 'C'. The applicant should provide testimony regarding where this bike rack is being relocated.
12. The proposed walkway along Avenue E adjacent to the Parcel 'B' notes a 'paver' sidewalk is proposed in the right-of-way. The walking surface should be constructed with concrete. In addition, there is a paver/stamped concrete pattern shown along the adjacent curbstrip. The applicant's engineer should clarify what is proposed and provide construction details, for further review. In addition, this office recommends the concrete sidewalk and paver curb strip be continued through the Parcel 'C' frontage for continuity.
13. The applicant is proposing to remove the traffic signal head and mast arm servicing eastbound traffic along E. 17th Street. The applicant is also proposing to remove the pedestrian traffic standard for the Avenue E crossing at its intersection with E. 17th Street. The traffic signal head, mast arm and pedestrian standard should all remain. Should the Board act favorably on this application, a detailed traffic signal and timing plan shall be submitted for review.
14. The proposed curb island protecting the existing transformer servicing Parcel 'C' should be removed/reduced from the Avenue E right-of-way, and the applicant should provide a consistent width sidewalk along the entire property frontage.



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15. The northeast corner of the existing parking lot served as a gravel dog walk area servicing Parcel 'C'. Testimony should be provided regarding the removal of same.
16. The proposed 16' depressed curb driveway ingress/egress should be striped along Avenue E to prevent blocking of both. In addition, directional signage should be provided indicating the correct one-way flow of traffic.
17. The site plan should be revised to construct a stamped concrete pattern along sidewalk/ driveway crossing ingress/ egress, respectively.

C. SITE GRADING REVIEW

1. The applicant should address the following general grading comments:
 - a. A minimum of 0.50% slope should be provided along the Avenue E gutter line;
 - b. The proposed 13' contour along the northbound shoulder of Avenue E will result in a full pavement removal and restoration. The applicant's engineer should review further;
 - c. TC 13.46 G 12.96 along the eastern curblineline of Avenue E is a low point; This should be addressed.
 - d. Proposed TC 13.15 G 13.02 creates a high point and ponding water situation. Same should be addressed;
 - e. Proposed TC 14.38 G 14.10 to the northern project limit tie in TC 14.38 G 13.92 provides less than 0.50% slope and should be revised;
 - f. The FF elevation 13.40 for the driveway exit and the spot G 13.10 propose a sidewalk cross slope greater than 2.0%. A maximum sidewalk cross slope of 2.0% is permitted; therefore, the grading plan should be revised;
 - g. The existing type B inlet grate elevation is 12.24 is located adjacent to the egress driveway apron which proposed a spot grade of 12.76 directly next to the inlet. The applicant's engineer should review this further, it appears the first floor elevation at this location may need to be lowered;
 - h. Provide the existing top and bottom of curb and sidewalk elevations at all locations of the project limits as opposed to noting to 'meeting exist'.
 - i. Add spot elevations at the front and back of sidewalk demonstrating that the sidewalk cross slope does not exceed 2.0%;
 - j. The leader arrow for the driveway ingress (TC 14.25 G 13.75) appears to be pointing at the incorrect location;
 - k. FF Elevation 13.67 for the driveway entrance appears to be a low point and water will flow into the garage. The applicant's engineer should further review;
 - l. Additional spot elevations should be provided in the concrete paver area for Parcel 'B' clearing identify the pedestrian ADA accessible route (maximum running slope of 5% and maximum cross slope of 2%). The current pedestrian ADA accessible route is unclear;
 - m. There appears to be a gap between two (2) existing retaining walls along the eastern property, near storm str. #222 along Parcel 'B' on the Grading Plan. The resulting slope exceeds 1:3, the applicant's engineer should clarify;



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- n. The slope between proposed 15' contour and the Parcel 'A' southeast building corner G 14.55 exceeds 1:3;
 - o. Storm MH Str. #232 rim elevation 12.14 appears incorrect;
 - p. The slope between spot elevation G 17.50 and type 'E' inlet storm str. #215 is flat and should be addressed;
 - q. Provide additional existing spot elevations along all property lines to ensure the proposed improvements do not impact the neighboring properties. When gathering the additional information, the applicant may need to obtain spot elevations on neighboring properties demonstrating existing drainage path is not obstructed.
2. The Parcel 'B' building first floor elevation varies from 13.40 to 15.50. The applicant should clarify how this grade difference is achieved within the structure; as there does not appear to be any internal stairs or ramps from the architectural plan.
 3. The Parcel 'A' building first floor elevation varies from 13.90 to 17.75. The applicant should clarify how this grade difference is achieved within the structure; as there does not appear to be any internal stairs or ramps from the architectural plan.

D. UTILITIES

1. Stormwater Management:

- a. The properties in question, Block 234 Lots 8.01, Block 458 Lots 1.02 & 1.03, and Block 467 Lots 23, consists of approximately 0.93 acres and is currently occupied by a residential and commercial building and associated parking lot. Site elevations range from 13 ft to 15ft. FEMA Flood Elevation in this area is 14 ft. The proposed disturbed area is more than one acre.
- b. The Applicant proposes constructing two underground detention structures to address stormwater management requirements.
- c. The proposed multifamily residential development will disturb more than one acre of land. The project meets the thresholds for Major Development under NJAC 7:8. The reference project has been reviewed in accordance with the City of Bayonne Avenue E, Silk Loft Redevelopment Plan dated October 6, 2020, and Stormwater Management Rules NJAC 7:8 as amended October 25, 2019.
- d. The drainage report shows an existing impervious cover of 357,99 SF and a proposed impervious cover of 356,671 SF. The proposed site impervious cover is lower than the existing impervious cover. Water quality improvement requirements of NJAC 7:8 do not apply.
- e. The site is located in State Planning Area 1 and is exempt from the Recharge requirements of NJAC 7:8.
- f. Parts of the project site are located within the Flood Hazard Area, Effective Mapping. The Applicant must obtain a Flood Hazard Area Permit from NJDEP. A copy of the permit must be provided to this office.



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- g. The Applicant must obtain a Soil Erosion and Sediment Control Certification from the Hudson Essex Passaic Soil Conservation District. A copy of the plan certification must be provided to this office.
- h. The proposed development proposes more than 1 acre of land disturbance and must obtain a General Permit for Construction Activities from the NJDEP. A copy of the permit must be provided to this office.
- i. Stormwater Runoff calculations use 24hr precipitation sums of 3.34, 5.01, and 8.81 inches for 2-year, 10-year, and 100-year design storm events. The current NOAA estimates for this area are 3.5, 5.55, and 8.81 inches. Stormwater calculations must be updated to use the current NOAA rainfall depths for the design storms (<http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>) that correctly reflect the project location.
- j. According to technical release 55 (TR-55), the minimum time of concentration (tc) should be 6 minutes unless a longer time is computed. Drainage calculations should be revised with a minimum tc of 6 minutes.
- k. A TR55 CN of 80 is used for the green roof in calculations. The drainage report shall provide supporting calculations for this selection of CN.
- l. There are two separate sets of stormwater quantity management calculations presented in the drainage report, one for the Bayonne ordinance and one for NJAC 7:8. The stormwater quantity control requirements of NJAC 7:8-5.6 and City of Bayonne Silk Lots Redevelopment Plan Section 9.a. are the same with respect to required peak reductions. The extra set of calculations should be removed from the drainage report.
- m. In accordance with RSIS standards, no pipe size in the storm drainage system shall be less than 15 inches. All outflow pipes from the underground detention basins must be revised to a minimum of 15".
- n. The drainage report must include the storm sewer collection system design calculations. The Applicant's engineer should ensure that runoff from the site for all storms up to the 100-yr storm event can be conveyed overland or through the surcharged conveyance system to the underground detention basin. All outflow pipes from underground detention must be designed to convey a 100-year storm.
- o. Underground detention system (UGDS) details on sheet 12 should be revised to include the maximum water surface elevation for the 2-yr, 10-yr, and 100-yr storm event, as well as the seasonal high groundwater table.
- p. In accordance with NJAC 7:8-5.7.(a).5, underground detention basin routing should include backflow preventer and tailwater from the downstream sewer in the street.
- q. The UGDS must be able to drain in 72 hours. Drain time calculations should be provided in the drainage report. Drain time should be added to the construction details as well as the operation and maintenance manual.
- r. There should be a minimum of 1-foot vertical separation between the bottom of the detention system (stone pocket) and the seasonal high groundwater elevation.
- s. A fabric filter should be provided on all sides of the stone fill around the 48-inch diameter pipes to prevent clogging the voids within the stone fill.



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- t. The Applicant's engineer should provide buoyancy calculations for the underground basin to the flood hazard area elevation to determine if special measures should be provided to prevent flotation.
 - u. A backflow preventer for both underground detention basin is required. Details for the backflow preventer pit and valve should be provided on the plans.
 - v. Construction details of the proposed basin access manhole should be provided on the plans.
 - w. All pipes in the UGDS must have at least a 0.25% slope towards the outfall structure.
 - x. Per stormwater management regulations, Trash rack details should be provided for all outlet devices (orifices, weirs, overflow grates, etc.) shown on the proposed outlet structure. The trash racks must meet requirements in N.J.A.C. 7:8-5.7 and 6.2. The trash racks should be installed in the upstream chamber to be able to provide maintenance without having to access the underground basin.
 - y. A soil report addressing the construction and function of the detention system with respect to the seasonal high groundwater elevation should be provided.
 - z. As per BMP Manual requirements, a minimum of two (2) soil profile pits should be excavated for each area of the proposed Underground Detention Basin to establish seasonal high water in the area of the proposed UDGS. The Applicant should perform the required testing in accordance with Chapter 12 of the B.M.P. Manual.
 - aa. A low-impact development checklist should be completed for this project and included in the drainage report.
 - bb. An Operation and Maintenance Manual, prepared in accordance with NJAC 7:8-5.8, shall be provided for the proposed stormwater BMP's.
2. The proposed 6' diameter manholes should be increased in size for the existing 60" RCP. Final manhole size should be approved the Engineer.
 3. The applicant's engineer's note for the domestic and fire water line indicate a 2" domestic water service and 6" fire water line are proposed but the line type shown indicates a 4" water line and 6" water line are proposed. The applicant's engineer should clarify.
 4. The applicant's engineer is proposing sanitary sewer manholes to tie in the proposed sanitary sewer laterals into the 38" x 50" brick sewer for Parcels A & B. Previous developments in this area installed sanitary laterals, with a clean-out within the proposed sidewalk and a direct connection into the existing sewer main with an inserta tee. We recommend the applicant's engineer further review the proposed manholes for constructability.
 5. The southern half of the existing Silk Lofts building, Parcel 'C' drains underground to the existing parking lot which then discharges to the existing 60" pipe located along Avenue E. The applicant is proposing to remove the existing drainage system in the parking lot. The roof leader drain system discharge for the existing building should be further evaluated and tied into the appropriate existing/ proposed drainage system. Same should be delineated on the site plan.



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6. The applicant's engineer is proposing numerous crossings with existing utilities. Should the Board act favorably on this application, a test pit program should be performed at all crossings prior to ordering material and structures, as well as commencing with the proposed utility improvements. Same should be noted on the utility plan.
7. The applicant should provide the invert elevation at the proposed sanitary lateral connection into the sewer main.
8. Proposed 4' x 4' double underground OCS storm structure #216 indicates a type E, double bicycle safe grate on the site plan; however, the construction detail indicates a manhole with grate is proposed. Clarification is required.
9. The label on Drainage & Utility Plan sheet no. 7, between the OCS storm str. #216 and storm manhole storm str. #232 appears to be incorrect. The length of the 12" HDPE is noted to be 80lf; however, the measured length of the 12" HDPE pipe is approximately 96 lf. Plan coordination is required.
10. The applicant's engineer should provide the invert elevation in and out of storm manhole str. #232.
11. The applicant's engineer should revise the note on Drainage & Utility Plan sheet no. 7, OCS storm str. #216 to include the invert elevation and size of the discharge pipe.
12. It appears the type 'B' inlet adjacent to proposed driveway exit for Parcel 'B' will need to be modified or relocated to accommodate the driveway curb cut flare transition.
13. The site plan should be revised to delineate the roof leader drain system once it exits the proposed building, including its tie into the proposed detention basin. The size, material and slope of the roof leader drain system should be noted on the site plan.
14. The applicant should provide Fire flow calculations for further review.
15. We defer further review of the water and sanitary sewer systems to the Bayonne Utility Department and Suez.
16. Environmental Impact Statement Comments:
 - a. Section 4, add NJDEP Flood Hazard Area permit to list of approvals required.
 - b. Section 5, please note parts of the site are located in the FEMA flood AH zone with an elevation of 14 ft. Please review and revise the EIS report.
 - c. Slide named Map 1 in appendix B should be revised to match project limits as shown on site plans.



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E. MISCELLANEOUS

1. The proposed lot numbers for the proposed parcels shall be approved by the Tax Assessor.
2. The following construction details shall be provided and/or modified on the site plans:
 - a. All site concrete shall be 4,500 psi concrete;
 - b. Revise the Concrete Apron at Driveway Detail on sheet no. 11 to indicate the maximum cross slope at the sidewalk crossing shall not exceed 2.0%;
 - c. Concrete paver detail for onsite and offsite improvements.
3. If the Board acts favorable on this application, the applicant shall post the required performance bonds and engineering and inspection fees.
4. Other Agency Approvals, where required:
 - Hudson County Planning Board
 - Bayonne Utility Department and Suez
 - Soil Conservation District
 - Bayonne Fire Department
 - NJ Transit
 - All other agencies having jurisdiction

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

RJR/rr

cc: Land Use Administrator
Board Attorney
Board Planner
City Planner
Zoning Officer
AMS Equities, LLC, Applicant
Michael Miceli, Esq., Applicant's Attorney
Marchetto, Higgins and Stieve, LLC, Applicant's Architect
Dynamic Engineering, Applicant's Engineer