MEMO TO: City of Bayonne
Planning Board

FROM: Robert J. Russo, P.E., P.P., C.M.E.
City Engineer's Office

DATE: December 12, 2023

RE: 5 Meadow Construction, LLC
Preliminary and Final Major Site Plan
Report #1
Block 460, Lot 1.01
1-5 Meadow Street
Bayonne, New Jersey
Our File: PBYP0460.02/600.01
Application # P-22-024

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 Major Site Plan as prepared Daetel Engineering, date of October 23, 2023, with no revisions;
- Architectural Plans, as prepared by Emara Ghobrial Architects, dated October 3, 2023, with no revisions;
- Stormwater Drainage Report, as prepared by Daetel Engineering, dated October 24, 2023;
- Location Survey, as prepared by Koestner Associates, dated February 22, 2022, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

A. PROJECT OVERVIEW

The site located at the northwest corner of the intersection of E. 19th Street and Meadow Street. The site currently contains a two (2) story residential building and a one (1) story masonry garage that are proposed to be demolished. The applicant is before the Board to request approval for the construction of a five (5) story building that consists of twenty-two (22) residential units and twenty-two (22) parking spaces in an enclosed garage.

Please note that on January 9, 2018, the above referenced site received approval to construct a four (4) story building consisting of 14 residential dwelling units with 18 parking spaces. At the applicant's request, the Board has since rescinded the prior approval.

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. The applicant should provide testimony to the Board regarding whether security cameras will be provided around the building perimeter and within the garage.

2. This office recommends the applicant mill and overlay the project frontages along E. 19th Street and Meadow Street, from the curbline to the roadway centerline, respectively. All required striping should be shown on the plan; thermoplastic is required.

3. The natural drainage pattern flows from north to south along the property. It appears the proposed building will block the natural drainage path; additional spot elevations should be supplied demonstrating sufficient slope or drainage improvements. Additional spot elevations should be provided on the neighboring properties demonstrating that they are not adversely affected.

4. The applicant should revise the site plan to note the name of the roadway is Meadow Street.

5. The applicant should provide testimony regarding the width of the proposed driveway/curb cut/garage opening. A 12’ wide opening appears narrow for two-way traffic and our office recommends this be widened to a minimum of 16’ in width.

6. A minimum slope of 0.50% is required along the curbline for both frontages. Elevation 7.85 is a low point that will require a modification to the existing drainage structure. Elevation TC=8.45/BC=8.95 is incorrect and should be revised.

7. Due to a proposed slope along the concrete parking lot, proposed spot elevations should be provided at the proposed ADA accessible parking space, and area, so that ADA compliance can be confirmed.

8. The applicant should provide back of sidewalk grade elevations at all TC/BC curb elevations so ADA compliance along the sidewalk can be confirmed.

9. The proposed arrow at the driveway exit should be revised to a right-only arrow and a proposed right only arrow sign should be provided.

10. The site plan notes that (4) parking spaces are to be EV ready, if required, and two EV charging stations are proposed. Clarification is required.

11. The applicant should provide colored stamped concrete at the driveway crossing and apron.

12. The applicant should delineate all locations of full depth asphalt repair or the plan, including the 2’ wide repair strip along all new curb and at all utility services.

13. The applicant should revise the top of depressed curb at the driveway entrance to be 1.5” high.

**C. STORMWATER MANAGEMENT REVIEW**

**General**

1. The Applicant proposes to construct an underground detention structure to address stormwater management.
2. The proposed multifamily residential development will disturb less than one acre (0.1546 ac) of land and will not create more than ¼ acres of additional impervious surface. The project does not meet the thresholds for Major Development and is not major development under NJAC 7:8. The reference project has been reviewed in accordance with the City of Bayonne Zoning Ordinance and New Jersey Residential Site Improvement Standards, NJAC 5:21.

3. Site elevations range from 8.5 ft to 11 ft. This area is outside the effective FEMA FIRM Map dated 8/16/2006. However, the area is inside the updated Preliminary FEMA FIRM Map, which has a 100-year elevation of 12 ft. In accordance with New Jersey Flood Hazard Area Regulations NJAC 7:13-1.2, for regulatory purposes, the higher of the two elevations is considered the 100-year flood elevation. We recommend the applicant either obtain a letter of no interest or a Flood Hazard Area permit from NJDEP and provide a copy of the same to this office.

4. The Applicant proposes more than 5,000 SF disturbance and, in accordance with NJ PL Chapter 251, 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.

5. The City utility mapping indicates that the combined sewer main size within E. 19th Street is 18" VCP. The site plan notes that the existing main is 15" clay. The applicant’s engineer should investigate further.

6. An existing drainage structure including granite head, is located at the northwest corner of E. 19th Street and Meadow Street and the existing conditions plan notes the manhole cover is to be removed. City mapping indicates that this structure ties into the existing manhole at the intersection. Access to this existing drainage structure must be provided. In addition, this is a natural low point along the roadways and a grate should be provided to collect stormwater.

**Stormwater**

7. In accordance with City of Bayonne Ordinance §33-10.23, stormwater discharges from the proposed development must be controlled to pre-development levels. The drainage report must be updated with stormwater runoff calculations to comply with ordinance requirements.

8. The drainage report should be revised to include design calculations for the conveyance system. The conveyance system must be designed in accordance with RSIS standards, NJAC 5:21-7.3.

9. In accordance with RSIS standards, NJAC 5:21-7.3.(f), no pipe size in the storm drainage system shall be less than 15 inches. The pipe sizes should be revised to meet this requirement.

10. Stormwater calculations must 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.

11. The Underground Detention System detail on sheet C-09 must be site-specific and indicate the stone's top and bottom, pipe elevations, and seasonal high groundwater.

12. A soil report addressing the construction and function of the detention system with respect to the seasonal high groundwater elevation should be provided. A one-foot separation between the SHWT Underground detention system is required.
13. The 24" pipes being used for underground detention must be installed outside the influence zone of building foundations. Grading and Utility plans must be updated to show foundation footprints, and a site-specific cross-section must be added to the details sheet showing the relationship between building foundation influence zones and storage pipes.

14. All underground detention pipes must have a minimum slope of 0.25% towards the outlet.

15. Inspection ports should be provided at the end of each row of pipes for maintenance. In addition, a construction detail of the inspection ports should be provided.

16. The grading and utility plan should be revised to include the maximum water surface elevation for the underground detention basin's 2-yr, 10-yr, and 100-yr storm events.

17. The location of roof drain connections to the underground detention system should be shown on the construction plans.

18. Underground detention basin routing should include tailwater from the 15" pipe in the street. Basin routing should be revised to account for the effect of the backflow preventer on basin outflow by considering a tailwater elevation equal to the crown of the receiving pipe.

19. Trash rack details should be provided for all outlet devices (orifices, weirs, overflow grates, etc.) shown on the proposed outlet structure. The trash rack should be in accordance with NJAC 7:8-5.7 and 7:8-6.2.

20. The outflow pipe includes a backflow prevention device to prevent backflow from a combined sewer into the underground detention basin. The backflow preventer should be installed onsite upstream of the connection to the City sewer at a place where it can be accessed for maintenance. Details of the backflow prevention mechanism should be provided in construction plans.

21. The outlet control structure must provide a 2-ft sump in the downstream chamber.

22. The detention basin outflow pipe is connected to a 15-inch Clay sewer in East 19th Street. Construction plans must be updated to show invert elevations for manholes upstream and downstream of the storm sewer connection.

23. The stormwater connection to the existing sewer must be made with a manhole. Blind stormwater connections are not allowed.

**O&M Manual**

24. In accordance with RSIS standards and the City Ordinance, the Applicant must provide a maintenance plan for the stormwater management measures incorporated into the design of the proposed development. A copy of the maintenance plan should be submitted to our office for review.

25. The maintenance plan must address access and long-term maintenance of underground pipe storage system under a building.
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26. The OCS discharge line extends past the existing sewer main along E. 19th Street. The plan should be revised delineating the correct tie-in point.

D. MISCELLANOUS

1. The Applicant's Engineer should design the proposed curb ramps, sidewalks, warning surfaces, signing, striping, and crosswalks, to meet the latest ADA and MUTCD requirements. The proposed curb ramp needs to be revised to include cast-in-place detectable warning surfaces and additional spot elevations demonstrating the proposed landing at the top of the ramp, ramp elevations at each side of the ramp demonstrating sufficient slope for drainage, correct concrete flare transitions (flush curb at the transition is not acceptable). In addition, elevation 7.85 is a low point; the site plan is silent on what is proposed with the existing drainage structure noted above.

2. Revise the RCP Pipe Detail to note that only ¾" crushed stone bedding, installed to the pipe spring line, then dense graded backfill is permitted within the public right-of-way.

3. Revise the Fire Hydrant Detail to remove the TWW Standard US Pip Metropolitan 250 Dry Barrel hydrant. Contact Mueller or this office for the Bayonne specific fire hydrant.

4. If the Board acts favorable on this application, the applicant shall post the required performance bonds and engineering and inspection fees.

5. While this office defers to the Bayonne Utility department Utility Note Nos. 5 and 6 on the cover sheet shall be revised since the water service and sanitary services are not owned by Hudson County. In addition, HDPE SDR-11 water main pipe is not acceptable in the public right-of-way.

6. Other Agency Approvals:
   - Hudson County Planning Board
   - Bayonne Utility Department and Veolia
   - Soil Conservation District
   - NJDEP, if required
   - All other agencies having jurisdiction

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

RJR/DM
cc: Director, Planning and Zoning
    Land Use Administrator
    Board Attorney
    Board Planner
    City Planner
    Zoning Officer
    5 Meadow Construction, LLC, Applicant
    Donald M. Pepe, Esq., Applicant's Attorney
    Daetel Engineering, Applicant's Engineer