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Engineering Progress

July 5, 2023

<u>Via UPS</u>

Township of Verona Planning Board Verona Town Hall 600 Bloomfield Avenue Verona, NJ 07044

Attn: Ashley Neale, Board Secretary

RE: PRELIMINARY AND FINAL MAJOR SITE PLAN VERONA SUNSET URBAN RENEWAL, LLC 1 SUNSET AVENUE – BLOCK 303, LOT 4 (TOWNSHIP OF VERONA) BLOCK 301, LOT 5 & BLOCK 401, LOT 1 (TOWNSHIP OF MONTCLAIR) ESSEX COUNTY, NEW JERSEY MATRIX NO. 19-720

Planning Board Members:

This letter has been prepared in response to comments contained within your 6/6/23 letter, subsequent email dated 6/21/23, and discussions at the Board hearing concerning the height of proposed retaining walls.

We are submitting the following items in support of the application:

- 1) Ten (10) copies of a memorandum dated June 14, 2023 with a subject line of "Bioretention Basin Permeability Memo"
- 2) Ten (10) copies of the report entitled "Preliminary Geotechnical Assessment Report, Verona Site, Block 303, Lot 4, Township of Verona, and Block 301 Lot 5 and Block 401 Lot 1, Township of Montclair, Essex County, New Jersey" prepared by Matrix New World Engineering and last revised June 2023
- 3) Ten (10) copies of the plans entitled "Grading and Drainage Exhibit, Verona Sunset Urban Renewal, LLC, Block 303, Lot 4, Township of Verona, and Block 301 Lot 5 and Block 401 Lot 1, Township of Montclair, Essex County, New Jersey" prepared by Matrix New World Engineering and dated June 27, 2023

In addition to the above enclosures, please review the point-by-point responses below for the abovereferenced review letter; *italicized* text indicates review comments and **bold** indicates our response.

BOSWELL ENGINEERING REVIEW LETTER DATED JUNE 6, 2023

Stormwater Management Comments

1. While Basin C is referred to as a Bioretention Basin within the plans and reports, it does not appear to be designed as a bioretention basin, as defined under Chapter 9.7 within the NJDEP BMP manual. Within the HydroCAD calculations, the basin was input as a detention basin. However, since the



outfall discharge is located above ground, without the knowledge of the percolation rates through the basin's layers, it is not possible to know if the detained stormwater will remain in the basin or discharge through the overflow and , thus, not work as intended.

In response to the above comments, Matrix will revise the bioretention basin design to include an orifice at the ground elevation, and the stormwater report and plans will be revised to indicate a design permeability rate for the soil layer within the bioretention basin. In addition, Matrix has prepared the enclosed Bioretention Basin Permeability memorandum to show that the bioretention basin will drain well within the allowable 72 hours utilizing the design infiltration rate of 1 in/hr. It is also noted that the report will be revised to include pipe calculations for the basin underdrains to show that they are designed to have a conveyance rate at least twice the rate of the design flow rate of the soil layer within the basin as required by the NJDEP BMP. The revised stormwater report will be submitted under separate cover.

2. In Appendix B of the stormwater management report, the attached geotechnical report had soil borings performed on September 16 and 17, 2019 and May 7 2021, as well as test pits performed between October 5 through 7, 2022. In accordance with Chapter 12 (page 10) of the NJDEP BMP Manual, the seasonal high-water table (SHWT) is measured via direct observation ...

The previously submitted geotechnical report mentioned mottling and groundwater in a number of test locations but did not discuss the anticipated source of these findings. A revised geotechnical report is enclosed with this submission, and it now contains a memorandum from a geologist clarifying that the mottling and groundwater encountered is due to a temporary perched ground water condition. The body of the geotechnical report was also revised to clarify the source of mottling and groundwater. Based upon the conclusions within the revised geotechnical report, the proposed stormwater management basins are in compliance with the NJDEP requirement to have a minimum of 1-foot separation from groundwater/SHWL.

3. Based on NJAC 7:8-5.6(c) ("the stormwater runoff quantity standards shall be applied at the site's boundary to each abutting lot, roadway, watercourse, or receiving storm sewer system") and NJAC 7:8-5.2(I) ("If there is more than one drainage area, the groundwater recharge, stormwater runoff quality and stormwater runoff quantity standards at NJAC 7:8-5.4, 5.5 and 5.6 shall be met in each drainage area...

Matrix will revise the stormwater management report to include additional clarification language showing that the current stormwater management design does comply with above-referenced NJAC sections.

4. After reviewing the Stormwater Management Reports dated January 11 and May 5, 2023, it could be noticed that Tables 5, 7 and 8 display the exact Total Post-Development Flow Rates despite the peak flow increase reported in the Pre-Development conditions. The Applicant shall explain these results.

In the final signed versions of the above-referenced stormwater reports, both the pre- and post-development peak flow rates have increased in the May 5 report. The tables do show the same values for pre- and post-volume which would not have been expected to increase. Matrix will revise the stormwater management report where needed to help clarify the above.

Traffic Impact Review Comments

1. A review of the latest version (May 3, 2023) of the traffic impact report by Stonefield Engineering was reviewed. Previous comments were addressed and there are no outstanding issues.

Statement, no response required.

2. The latest response letter (May 8, 2023) from the Applicant's engineer was reviewed and all outstanding traffic comments made to the plan set have been addressed and there are not outstanding issues.

Statement, no response required.

RETAINING WALL HEIGHT DISCUSSIONS AT PLANNING BOARD HEARING – JUNE 7, 2023

During the most recent Board Hearing there was discussion concerning the height of the retaining walls and the fact that per the ordinance wall height would include any fence unless located at least 3 ft from the top of wall. In addition, particular attention was paid to the retaining wall proposed near the dog run at the northeast corner of the building.

Based upon discussions with the Board, the enclosed Grading and Drainage Exhibit has been prepared which shows the locations where the fence will be located 3 feet from the top of the wall to bring the walls into compliance with the Township retaining wall height requirements. During the recent hearing, some members of the Board expressed concerns with the height of the proposed retaining wall near the northeast corner of the building and options to reduce the height of the wall were discussed. One option discussed was to propose a stepped wall and the enclosed Grading and Drainage Exhibit shows this option. In this scenario, the transformers would need to be relocated closer to Sunset Avenue and we are providing one 6-foot wall and a second 5-foot wall set back from the first as required by the Ordinance. In addition, a 4-foot fence is proposed 3 feet behind the top of the second wall so as not to be included in the calculation of wall height. In this scenario, the wall would comply with the Township's retaining wall sections of the ordinance.

The Applicant is seeking the Board's input regarding the use of the stepped wall, and following the next Board Hearing, the site plans will be revised in accordance with the Board's recommendations.

Should you have any questions or require additional information please do not hesitate to contact me by phone at (973) 295-3604 or via email to ssavage@mnwe.com.

Sincerely,

Sean M. Savage, PE Director of Land Development

SMS:lb Enclosures