



CHEMUNG
COUNTY
STORMWATER
COALITION

851 Chemung Street
Horseheads, New York 14845

January 16, 2020

Attn: Mr. John McCracken, Director of Code Enforcement
City of Elmira Inspection Services Department
101 West Second Street
Elmira, New York 14901

**Re: Elmira Apartments SWPPP Review
West Fifth Street, City of Elmira**

Mr. McCracken:

I have completed a review of the following submitted information for the above-referenced project regarding the Stormwater Pollution Prevention Plan (SWPPP) and stormwater management system design for that project.

- Site Plan Drawings for Elmira Apartments (Drawing Nos. 01 to 11), City of Elmira, New York, Prepared by BME Associates, Project No. 2680, Dated December 2019, Received January 6, 2020, Not stamped by a licensed professional engineer
- Stormwater Pollution Prevention Plan (SWPPP) for Elmira Apartments, Prepared by BME Associates, Project No. 2680, Dated December 2019, Received January 6, 2020, Not stamped by a licensed professional engineer
- "No Effect" letter from the Office of Parks, Recreation, and Historic Preservation for the Elmira Apartments Project, 20PR00105, Dated January 13, 2020

My review comments and questions regarding the SWPPP and stormwater management system for the above-referenced project, based upon the submitted information, are as follows.

Stormwater Infiltration

1. A copy of the geotechnical report for this project that includes the soils exploration and testing information (including infiltration testing results) should be included in the SWPPP.
2. In regards to the proposed access manholes for the StormTech system, are weirs proposed within each of these? Details should be provided for the access manholes and the weirs (including the elevations of the top of these weirs).
3. Will the proposed StormTech infiltration system negatively impact the basements of adjacent homes? Will appropriate horizontal separation be provided from the proposed infiltration system to existing basements?

Hydrologic Calculations & Soil Restoration

1. The estimated Time of Concentration for the Pre-Development Subarea B appears to be too short.
2. In accordance with the New York State Stormwater Management Design Manual, for pervious areas that are compacted during construction, but do not undergo soil restoration, the Hydrologic Soil Group (HSG) has to be increased by one group for modeling purposes. For example, a HSG B soil would be increased to HSG C soil.

The following questions and comments pertain to the pervious area within Post-Developed Subarea B.

- Would the soil in the proposed pervious areas along the proposed building become compacted during construction?
- Furthermore, it appears that the pervious areas along the proposed building is proposed to be filled by over 1 foot in some locations. What is the nature of this proposed fill?
- Is soil restoration proposed for this area? If so, how will soil restoration be completed?

If soil restoration is not proposed, the HSG group would (as a minimum) need to be increased by one group and the associated CN values utilized. Depending upon the nature of the fill material to be placed in this area, the HSG may need to be increased by over one group.

3. It is requested that the values provided in Table 4 and Table 5 in the Engineer's Report be reviewed and compared to the HydroCAD results.

Stormwater Collection & Conveyance

1. As per the Engineer's Report, it is noted that the proposed StormTech system is designed to accommodate up to the 100-year storm event, although it is also noted that the proposed storm sewer system is designed to accommodate a 10-year storm event. It is requested that hydraulic calculations be provided that document that the design 100-year peak flow of 17.44 cfs can be conveyed to the to the proposed Barracuda treatment unit and the StormTech system, without being diverted off-site and away from these units. As part of these calculations, consideration should be given to the headloss presented by the proposed Barracuda treatment unit, as well as the tailwater offered by stored water within the StormTech system.
2. What grates and frames shall be utilized with the stormwater inlets and storm inlet manholes? The ability of these grates to accept peak stormwater flow rates should be documented.
3. Will the proposed roof drain system (including downspouts) have sufficient hydraulic capacity to accommodate peak stormwater flows rates?
4. It is requested that proposed spot elevations be provided along the west side of the sidewalk at the drive crossing near the proposed Stormwater Inlets D-3 and D-4.

Erosion & Sediment Control

1. Is silt fence proposed in the northeast corner of the project site?

2. It is requested that a detailed specification for Dust Control be provided in the SWPPP. Furthermore, it is requested that Note #3 under Grading Notes on Drawing No. 05 be replaced with the following – *The Contractor shall promptly implement dust control operations in accordance with the approved specification, when directed to by the Owner’s Qualified Inspector and/or when requested by the City of Elmira.*
3. In accordance with the New York State Stormwater Management Design Manual, *“Infiltration practices shall never serve as a sediment control device during the site construction phase. In addition, the Erosion and Sediment Control plan for the site shall clearly indicate how sediment will be prevented from entering an infiltration facility.”* Specific provisions to protect the proposed infiltration system from sediment/silt during construction should be outlined in the SWPPP, as well as the Sequence of Construction.

Operation & Maintenance

1. In accordance with the City’s Stormwater Management and Erosion and Sediment Ordinance, a formal, signed enforceable operation and maintenance agreement for the stormwater collection and management system shall be provided by the Applicant. Furthermore, this agreement must reference and include an approved Operation & Maintenance Plan. This is especially pertinent to this project as the proposed water quality treatment unit and an infiltration system will have specific O & M needs to maintain the long-term performance of the stormwater management system.

This agreement shall be binding on all subsequent landowners and recorded in the office of the County Clerk as a deed restriction on the property. Also, the Applicant shall convey to the City easements and/or rights-of-way to assure access for periodic inspections by the City or their representatives (and for maintenance if required). These agreements, as well as the Operation & Maintenance Plan, shall be subject to the review and approval of the City of Elmira, their attorney, and Chemung County Stormwater Coalition.

2. In regards to the proposed stormwater infiltration systems, a detailed O & M Plan should be developed that includes (but not be limited to) the following items.
 - i. Specific operation and maintenance tasks
 - ii. Monitoring requirements (including frequency)
 - iii. Frequency and thresholds of maintenance activities (including the possible future replacement of the infiltration system)

Like other stormwater infiltration systems, the proposed StormTech system has an effective life span, after which the repair and/or replacement of these systems would be needed. A number of factors impact the effective life of an infiltration system, including the nature of the existing soils, the nature and amount of solid particulates discharged to the system, and the degree of maintenance. Maintenance of the proposed infiltration systems will be critical to the long-term performance and effective life of these systems.

3. In regards to the MS4 SWPPP Acceptance Form, included in the submitted SWPPP, the contact person for the City of Elmira shall be John McCracken, Director of Code Enforcement.

4. In regards to the proposed sidewalks and the proposed entrance/exit drives, the following items are noted.
 - i. The Applicant is required to obtain a Curb Cut Permit from the City of Elmira Department of Public Works, prior to the start of construction. Furthermore, the City DPW shall approve the design and construction details for the proposed sidewalk, curbing, and curb ramps.
 - ii. The design and construction of the proposed sidewalks, curbing, and curb ramps within the City's right-of-ways shall be in accordance with the following.
 - City of Elmira's SIDEWALK Specifications and Standards
 - NYSDOT Sidewalk and Curb Ramp Details (Sheets 1 through 9), 608-01
 - U.S. Department of Transportation's Accessible Sidewalks and Street Crossings – an Information Guide (FWHA-SA-03-01)
 - iii. The minimum width of sidewalk (including sidewalks that cross drives) shall be 5 feet.
 - iv. Sidewalk within City street right-of-ways shall not be installed with wire mesh.

5. This review pertains only to stormwater management.

If you have any questions or comments regarding this letter, please do not hesitate to contact me. Furthermore, I would be happy to meet to discuss this project in greater detail.

Sincerely,

A handwritten signature in blue ink that reads "Jimmie Joe Carl". The signature is written in a cursive style with a large initial "J".

Jimmie Joe Carl, P.E.

Cc: Andrew Avery, P.E., City of Elmira
Rick Vary, City of Elmira
BME