

851 Chemung Street
Horseheads, New York, 14845

May 30, 2012

Mr. Tim Gilbert, Code Enforcement Officer
Town of Big Flats Code Enforcement Department
476 Maple Street, P.O. Box 449
Big Flats, New York 14814

**Re: Hickory View Apartments Multi-Family Development
Big Flats, New York
Review of Stormwater Management Plan**

Mr. Gilbert:

I have completed a review of the above-referenced project regarding the proposed stormwater management system for that project.

- Site Plan Drawings for Hickory View Apartments Multi-Family Development, Stamped by a NYS Licensed Professional Engineer, Prepared for Arnot Realty Corporation, Prepared by Larson Design Group, LDG Project No. 6632-006, Revision Dated April 12, 2012
- Stormwater Pollution Prevention Plan (SWPPP) for Hickory View Apartments Multi-Family Development, unstamped by a NYS Licensed Professional Engineer, Prepared for Arnot Realty Corporation, Prepared by Larson Design Group, LDG Project No. 6632-006, Revision Dated April 27, 2012
- Draft Stormwater Maintenance Agreement, Provided by Carl Carson of Arnot Realty, Faxed to Town of Big Flats on April 30, 2012
- Draft Post-Construction Operation, Maintenance, and Inspection Plan and Draft Post-Construction Contingency Stormwater Management Plan, Prepared by Larson Design Group, Faxed to the Town of Big Flats on May 9, 2012

My review comments and questions regarding the above-referenced project are as follows. At your request, I would be happy to direct a copy of this letter to Larson Design Group.

Stormwater Collection & Conveyance

1. As noted previously, an appropriate agreement (of a legal and binding nature) will be needed to allow runoff from Hickory Grove Road to continue to flow onto the project property. This has been requested by the Chemung County Department of Public Works.
2. The proposed stormwater equalization pipes may be prone to accumulating debris and may require increased maintenance efforts, accordingly. The applicant may wish to consider this in the sizing of these pipes.

Grading Plan

1. It is recommended that the grading plan for the drives and parking areas be refined. Although a detailed review of the grading plan has not been completed, the following items are noted as examples.
 - It is unclear where/how runoff from the drive/parking area for Building #11 will be directed.
 - As per the Main Private Drive Detail on Sheet C-6, two sags are proposed in that profile for this drive. It is unclear (per the current grading plan) where/how these access drives will be drained.
 - It is unclear where runoff from the parking areas for Buildings #2, #3, and #4 will be directed. Is it intended to cross the proposed access drive?
 - In Table 1 on Sheet C-4, top elevations for the various infiltration basins are noted. The current grading plan does not indicate these top elevations in some cases. For example for VOS E, the top elevation is proposed to be 994.42 and the grading plan does not show this.
2. The grading and/or storm sewer plan for the proposed entrance drive onto Hickory Grove Road should be refined to clearly show how runoff would be conveyed away from Hickory Grove Road and the associated right-of-way.
3. It is recommended that the engineer review the proposed finished floor elevation for Building #1, as this elevation is close to the maximum ponding elevation of the adjacent basin. The proposed finished floor elevation is 994.5 and the top elevation of the adjacent infiltration basin (VOS BCD) is 994.21.
4. Is the access drive proposed to be crowned? If so, the grading plan does not reflect this.

Stormwater Facility Maintenance Agreement

1. The submitted draft Facility Maintenance Agreement has been modified from the sample agreement in the Town's Stormwater Management and Erosion and Sediment Control Ordinance. It is recommended that the Town's lawyer review this document, as well as the various schedules (the Post-Construction Operation, Maintenance, and Inspection Plan and the Post-Construction Contingency Stormwater Management Plan).
2. The draft agreement references Schedule A, which pertains to the proposed operation and maintenance requirements. This should be incorporated into the overall agreement.
3. In regards to the proposed Post-Construction Operation, Maintenance, and Inspection Plan, provisions to inspect and maintain the proposed storm sewers should be outlined.

Post-Construction Contingency Stormwater Management Plan

1. Requirements and associated provisions for the Post-Construction Stormwater Management Plan should be included as part of the Stormwater Facility Maintenance Agreement.
2. Whom officially is responsible for determining if the proposed stormwater management system is working ineffectively and that the Post-Construction Contingency Stormwater Management Plan needs to be executed? The Town's Stormwater Management Officer?

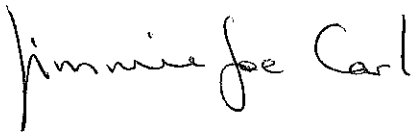
3. As a point of understanding, the proposed stormwater system is considered to be operating ineffectively when either of the two issues occurs. The Contingency Plan should be clear on this.
 - i. Stormwater leaves the project site.
 - ii. Standing water within the "Vegetated Open Swales" exceeds 48 hours.
4. Assurance of a legal nature is recommended that rights for the currently proposed project site to utilize the area to the east of the current project site for the back-up stormwater management area would exist in perpetuity. The general layout and location of areas that would be utilized for back-up stormwater management areas should be included in the agreement.
5. The draft Post-Construction Contingency Stormwater Management Plan indicates that, as a contingency measure, stormwater from the project site would be diverted to the existing topographic depression to the east of the project site. The diversion of additional stormwater to this existing topographic depression may necessitate the expansion/modification of this depression area. As such, as part of the Contingency Stormwater Management Plan, an engineering drainage evaluation would need to be conducted and appropriate expansion/modification of this topographic depression completed, if identified as being needed. This evaluation, as well as the associated expansion/modification of the topographic depression, should be submitted to the Town for their review and acceptance, prior to any work being completed.

Erosion & Sediment Control

1. In regards to the proposed entrances from Hickory Grove Road (including the secondary stabilized construction entrance), permission and appropriate permitting must be obtained from the Chemung County Department of Public Works.
2. On Sheet C-9, in regards to the proposed silt fence, the following items are requested.
 - o The location of the proposed silt fence be clearly shown on the plans.
 - o The proposed silt fence be provided along the perimeter of the land disturbance.
 - o The proposed silt fence be provided around the staging and stockpile area

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

Sincerely,



Jimmie Joe Carl, P.E.
Chemung County Stormwater

Cc: Theresa Dean, Town of Big Flats Supervisor
Lance Muir, Town of Big Flats Planning Board
Jessica Verrigni, Chemung County Stormwater