

May 23, 2018

Matt Monahan  
Central New Hampshire Regional  
Planning Commission (CNHRPC)  
28 Commercial Street  
Concord, NH 03301

RE: 603 Self Storage  
15 Chester Turnpike  
Response to May 16, 2018 Peer  
Review Comments from HT&A

Dear Mr. Monahan,

Below are Allen & Major Associates, Inc. (A&M) responses to the comments found within the May 16, 2018 review comments from Hoyle, Tanner & Associates, Inc. The comments are reproduced below along with the responses. We thank you in advance for your consideration.

**Plans:**

1. Cover Sheet
  - A. Planning Board Approval should reference Allenstown, NH.  
*A&M Response: The Cover Sheet has been revised to reference Allenstown, NH.*
  - B. Owner's Signature and Owner should correspond.  
*A&M Response: The owner's signature has been revised to correspond with the current owner.*
2. C-1 Layout & Materials Plan
  - A. Confirm 16.5', 18.9' or 19.0' is the proposed Side Yard Setback.  
*A&M Response: The zoning table has been revised to indicate the proposed building setback is a minimum of 16.5' (15' minimum required). The 18.9' and the 19.0' dimensions have been removed to avoid confusion.*
  - B. Confirm if "11.6'±\*" refers to a footnote.  
*A&M Response: We have replaced the asterisk "\*" with a footnote number "(4.)" which corresponds with the note regarding the variance granted for the 50' wetland buffer. A variance was granted on March 14, 2018 (Case #2018-01) to allow the reduction in the wetland buffer.*
3. C-2 Grading & Drainage Plan
  - A. Provide clarification of "Urban Fill". We question if this fill is HSG A.  
*A&M Response: Based on the test pits performed, there is a layer of "HTM" or Human Transported Material across most of the site. However, below the fill layer is an undisturbed layer of sandy soils consistent with the NRCS Windsor Loamy Sand which has a HSG rating of "A". We thought it was appropriate to use the HSG "A" rating as this is the most conservative approach for modeling the existing conditions. The proposed conditions, which is primarily pavement and rooftop area would not be affected by a change in the HSG rating.*

- B. Stormcrete labeling; #1 not shown, #7 labelled twice.  
*A&M Response: The Stormcrete labeling has been revised to correctly show #1.*
- C. Revise the 311.25 spot grade at the southern end of the rear bio-retention area to be inside the 312 contour.  
*A&M Response: The 311.25 spot grade has been removed as it was not necessary and confusing.*
- D. What measures are being taken for frost deaths and keeping the Stormcrete panels functioning during winter conditions? Please clarify a secondary drainage system or runoff pattern if the sand layer below the Stormcrete panels were to freeze. Frost depth will likely be over 48” deep under pavement.  
*A&M Response: The reservoir course and the sand layer are free-draining materials. The natural soil below the drainage system is also a free-draining sand. As such, freezing and frost depth will not affect the performance of the permeable pavement system. Permeable pavement systems have been used throughout NH and they function well even during winter months. The most important criteria is to have free-draining material below the permeable pavement system. Theoretically, if the sand layer were to freeze, the stormwater would fill the reservoir course and then pond within the pavement area. Since the site grading pitches in towards the center, all stormwater would remain on site until the sand layer thawed.*
4. C-3 Stormwater Pollution Prevention Plan.
- A. Confirm no prevention measures are along South and Southwest Rear perimeter.  
*A&M Response: We did not show any erosion control measures along the southwesterly perimeter because this is the high side of the site and stormwater runoff will not exit the site in this location. We have added erosion control measures along the easterly side (Chester Turnpike).*
- B. If Rear road/exit will be functional during construction, please provide additional Stabilized Construction Entrance.  
*A&M Response: A second stabilized construction entrance has been added as recommended.*
5. C-4 Stormwater Pollution Prevention Notes
- A. Note 3: Include Bio-Retention Area along Rear perimeter.  
*A&M Response: Note #3 has been revised to include the bio-retention area at the rear of the site as requested.*
- B. C-7 Details: Please confirm if the fill material that is to be replaced with clean sand is the A Rated Urban Fill.  
*A&M Response: The HSG-A rating applies to the Windsor loamy sand, which is the natural undisturbed material below the fill layer. We believe that the most conservative approach to modeling the existing stormwater runoff is to use the HSG-A value assigned to the natural material. The details on C-7 require that any fill material below the Stormcrete system be totally removed and replaced with clean sand. This will ensure that the system will perform as designed.*
6. C-5 Site Lighting Plan
- A. The lighting configuration shows illumination on abutting properties. Redesign and add shields on the light fixtures to reduce spillover across property lines.  
*A&M Response: We have reviewed the lighting levels with the Allenstown Technical Review Committee (TRC) on April 19, 2018 and the Planning Board during the May 16, 2018 public hearing. The TRC and the Planning Board did not object to the proposed*

*lighting plan. Allenstown Site Plan Review Regulations do not have a specific lighting threshold for abutting properties or public roads. The only requirement is that the fixtures to not create a “glare on abutting properties or on public highways or streets”.*

- B. The overall lighting configuration is extremely bright, 45 foot-candles in some areas. Redesign and consider reducing the wattage or using less lights.  
***A&M Response: See response above.***
7. C-6 Details
- A. Use straw bales, not hay.  
***A&M Response: The details have been revised to indicate straw bales as recommended.***
8. C-8 Truck Turning Plan Fire Apparatus
- A. Revise the plan to show a turning movement that works and does not interfere with the building.  
***A&M Response: On April 19, 2018, we met with the Allenstown TRC to review the site plan with the Town Departments, including the Fire Department. The Fire Department was satisfied with the site access and stated that they would not need to drive between the buildings. The length of the buildings was such that the fire hose would reach the far end of each row. We have revised the truck turning plan to show the fire truck only along the main drive aisle. The fire truck can enter and exit the site at either end as there is a Knox Box at both ends to provide access through the gates.***
9. Confirm no office is proposed in finish building.  
***A&M Response: Confirmed, there is no office proposed. The buildings are cold storage only (no heat or cooling provided).***
10. Confirm what utilities are on site.  
***A&M Response: The project will only have electrical and tele/data, which are required for the video monitoring. The individual units will not have electricity provided.***
11. Will the buildings be sprinkled?  
***A&M Response: No the buildings will not be sprinkled.***
12. Will drive isles have directional markings?  
***A&M Response: Directional markings are proposed at the entrance only, not within the drive aisles. Based on the ITE Trip Generation Handbook, this project will be a very low traffic generator. The peak hour will result in 6 vehicle trips (3 in and 3 out of the site).***

#### **Stormwater Management Plan:**

1. Clarify reasoning to determine the Hydrological Soil Group as an “A rating” given the referenced USDA Soil Report and ratings.  
***A&M Response: Based on the test pits performed, there is a layer of “HTM” or Human Transported Material across most of the site. However, below the fill layer is an undisturbed layer of sandy soils consistent with the NRCS Windsor Loamy Sand which has a HSG rating of “A”. We thought it was appropriate to use the HSG “A” rating as this is the most conservative approach for modeling the existing conditions. The proposed conditions, which is primarily pavement and rooftop area would not be affected by a change in the HSG rating.***
2. O&M Plan Post-Development Activities: Please include: If silt sacks were installed in adjacent catch basins they must be removed prior to site occupancy.  
***A&M Response: A note regarding the removal of the any silt sacks has been added as recommended (See Section 2.5, Post Development Activities, note #2).***

3. O&M Plan Post-Development Activities: Please add sand to item #3; “Salt and sand for de-icing”.  
*A&M Response: The edit has been made as recommended. Please note this item is now #4 (See Section 2.5, Post Development Activities, note #4).*
4. O&M Plan Schedule: Include the Temporary Sediment Basin in this log.  
*A&M Response: The O&M Plan Schedule has been revised as recommended to include the temporary sediment basin.*

#### **HydroCAD Model and Peak Flow Rate Capacity Calculations:**

1. Clarify why Urban Fill was classified as an “A” condition for the existing conditions calculations but sheet C-7 calls for the removal of the urban fill and for it to be replaced with clean sand.  
*A&M Response: The HSG-A rating applies to the Windsor loamy sand, which is the natural undisturbed material below the fill layer. We believe that the most conservative approach to modeling the existing stormwater runoff is to use the HSG-A value assigned to the natural material. The details on C-7 require that any fill material below the Stormcrete system be totally removed and replaced with clean sand. This will ensure that the system will perform as designed.*
2. Based on the tree line shown on the Existing Conditions Plan, there appears to be more gravel than listed in the calculations. Please verify.  
*A&M Response: We used an aerial photograph to determine the limits of the gravel area, which doesn't quite extend to the tree line shown on the existing conditions survey. There is an area of scrub brush between the limit of the gravel and the tree line shown on the survey.*
3. Clarify how an infiltration rate of 14.13 inches per hour was determined? Were Amoozemeter Ksat infiltration tests performed?  
*A&M Response: We used the NRCS published values for saturated hydraulic conductivity (Ksat) for the mapped soils. The published value is 100 micrometers per second, which converts to 14.13 inches per hour.*
4. If the infiltration rate is over 10 inches per hour for the soils, the infiltration is too rapid per NHDES standards to provide treatment. Treatment shall be provided before discharging to the soils fields or the soil shall be amended to an infiltration rate less than 10 inches per hour.  
*A&M Response: Permeable pavement systems have their own section of Env-Wq 1500, which does not limit the infiltration rate to a maximum of 10 inches per hour. Env-Wq 1508.15(c) describes the requirements for permeable surfaces including modular concrete paving blocks, which is what the Stormcrete panels are. We suggest that the proposed Stormcrete system will meet the Town's requirement for non-traditional, non-structural stormwater practices and will also meet the NHDES standards for permeable surfaces. It should be noted, that the NHDES standards only require a 1' separation to the seasonal high water table for a permeable surface, whereas the proposed Stormcrete design provides a 4' separation to the seasonal high water table. The Town's requirement for a 4' groundwater separation ensures that water quality treatment is provided prior to recharge to the groundwater.*

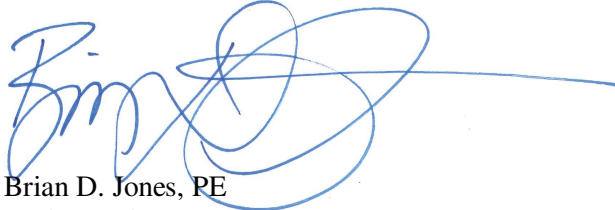
#### **Groundwater Protection Overlay District:**

1. The project is located in the Groundwater Protection Overlay District per the map entitled Official Zoning Map of the Town of Allenstown, NH as prepared by Central New Hampshire Regional Planning Commission and dated March 14, 2017. Article XXIV – Groundwater Protection Overlay District, Section V, B, 4, requires a minimum of four feet vertical separation between the bottom of a stormwater practice that infiltrates stormwater and the average seasonal high water table as determined. Based on the test pit data some of the infiltration practices do not meet this criterion. Please revise accordingly.

*A&M Response: We respectfully suggest that the design does provide the required 4' separation to the seasonal high water table. We have prepared a cross-section through the site showing the hydraulic grade line based on the test pit information. The section also shows the bottom of the individual rows of Stormcrete. Each system has been designed to meet or exceed the required 4' separation to the seasonal high water table. See Sheet C-2 for the location of the section (runs the length of the site) and Sheet C-7 for the actual Site Cross Section.*

Very Truly Yours,

**ALLEN & MAJOR ASSOCIATES, INC.**



Brian D. Jones, PE  
Senior Project Manager

Enclosures

1. Stormwater Management Plan, revised May 23, 2018
2. Site Development Plan Set, revised May 23, 2018

cc: Allenstown Planning Board (by e-mail, [planning@allenstownnh.gov](mailto:planning@allenstownnh.gov))  
Michael O'Meara (by e-mail, [momeara@allenstownnh.gov](mailto:momeara@allenstownnh.gov))  
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