



January 10, 2025

Mary H. Grover
Environmental Analyst
MassDEP – Division of Wetlands and Waterways
436 Dwight Street
Springfield, MA 01103

**RE: View Avenue
Northampton, Massachusetts
Response to DEP Comments
MassDEP Wetlands File No. 246-0785**

Dear Mary Grover and MassDEP – Division of Wetlands and Waterways:

On behalf of Todd Cellura of Sovereign Builders (the applicant), this memo is a response to comments based on an email received from the Massachusetts Department of Environmental Protection (the Department) on December 17, 2024. On December 4, 2024, staff from the Department met with the parties at View Avenue in Northampton, Massachusetts per 310 CMR 10.05(7)(i) to review the site/ project because of an appeal of the Order of Conditions issued by the Northampton Conservation Commission on 10/3/2024.

Please find below the response to comments.

Open Order

1. MassDEP records indicate that an Order of Conditions was issued for the Site in 2009 (MassDEP File #246-0631). Has a Certificate of Compliance been requested or received from the Northampton Conservation Commission for that project? Please see MassDEP Wetlands Program Policy 88-3 regarding multiple filings for the same or similar projects on the same property. [Wetlands Program Policy 88-3: Multiple Filings | Mass.gov](#)

The applicant has filed a Request for Certificate of Compliance Application with the Northampton Conservation Commission. It will be on the January 23, 2025 agenda.

Resource Area Delineation

2. Please document how the Project Site was evaluated for the presence of Bordering Land Subject to Flooding in accordance with 310 CMR 10.57(2)(a)(3). **The project site is located outside of the most recent FEMA Flood map as shown on SK-005 attached to this response. The closest flood elevation according to that map is roughly elevation 125. The lowest elevation the proposed project encounters are elevation 133. An updated Existing Conditions Plan has been included.**
Please describe how the Mean Annual High-water Line was determined in accordance with 310 CMR 10.58(2)(a)(2). **The Mean Annual High-Water Line was determined based on the first observable break in slope per 310CMR 10.58(2)(a)(2). Additional Mean Annual High Water mark (MAHW) indicators were not present; therefore, the first observable break in slope was used as the MAWH locations. Since the location of Bank and the MAHW mark are coincident at this site, they were flagged in the same location with the same flag numbers. The MAWH flags are the start of the 200-foot Riverfront Area.**

3. Please clarify if any intermittent streams are located within the BVW at the Site. **There were no intermittent streams flagged or observed within the flagged BVW onsite.**
4. Please clarify the following discrepancies identified in the field during the site inspection:
 - a. There are two “WF/21” flags on the plans. **Flag WF-21 closest to WF-22 has been removed from the plan. An updated Existing Conditions Plan has been included.**
 - b. Flag “WF/A46” is missing from the plan. **The flag has been added to the plan. . An updated Existing Conditions Plan has been included.**

BVW and Riverfront Area Alteration

5. Please describe activities proposed within Bordering Vegetated Wetland and Riverfront Area that will remove, fill, dredge or alter that area, including the proposed path relocation.
 - a. Sheet LC-503 shows a “Wetland Timber Boardwalk”; however, this is not shown on the plan view and was not discussed during the site inspection. **The “Wetland Timber Boardwalk” is not applicable to the current project. The details were left over from the original plan set submitted to the Planning Board. A revised LC-503 has been included which removes this detail.**
6. Please document compliance with each of the performance standards for BVW (as per 310 CMR 10.55(4)) and Riverfront Area (as per 310 CMR 10.58(4) or (5), as applicable).

The plans have been updated to show a “natural path connection” and removed any reference to the timber boardwalk or gravel trail. Since there will be no formal walkway established as part of this project and only markers will be utilized to “move” the path; no impacts to BVW or RFA are proposed. As such, compliance with those Performance Standards is not applicable.

- a. As part of this analysis, please document whether alternatives were considered for the rerouting of the existing trail. **An alternatives analysis was not considered for the trail rerouting. Planning Board approval required the current path connection to the multi-use trail to remain, and entirely within the boundaries of the project property. Approximately 200 linear feet of the existing trail is located on abutting property which needed to be rerouted. A connection to the multi-use path cannot be made without crossing BVW or Riverfront Area so no alternative exists which reduces impacts. The proposed rerouted sections of trail are in areas which require minimal disturbance and do not present additional impacts to buffer zone, BVW, or Riverfront Area over existing conditions once the replaced trail sections are restored.**

Further, 310 CMR 10.58 (6) states “Notwithstanding the Provisions of 310 CMR 10.58(1) through (5), Certain Activities or Areas Are Grandfathered or Exempted from Requirements for the Riverfront Area: (b) Certain minor activities as identified in 310 CMR 10.02(2)(b)1. 2. The following minor activities, provided that they comply with 310 CMR 10.02(2)(b)1., are not otherwise subject to regulation under M.G.L. c. 131, § 40:

a. Unpaved pedestrian walkways less than 30 inches wide for private use and less than three feet wide for public access on conservation property.

As such an alternative analysis or Performance Standards would not be required for a pedestrian walkway within the Riverfront Area as it is an exempt activity.

7. MassDEP has received copies of the wetland delineation information for the Bordering Vegetated Wetland Flag B-Series line. Please clarify if any additional data forms were developed and provide them.

Please see attached additional data form collected at flag A-69.

8. Was project phasing considered so that the entirety of the Buffer Zone is not cleared of vegetation all at the same time? Was the need for construction period sediment basins considered? Final construction phasing is still to be determined, however, it may be possible to clear and develop the northern portion of the site, including the larger subsurface stormwater system, as part of the initial phase leaving the southern portion of the site in-tact. If any temporary sediment basins are necessary, we anticipate those being located near the current single-family house location where there is currently an open lawn. Once the northern portion of the site has been completed and stabilized, work on the southern portion could commence. While erosion controls around the overall limits of project disturbance are proposed as indicated on the plan, additional temporary erosion controls would be included and specific to each phase of development.

Planting Schedule

9. Please review the wetland indicator status of each of the proposed plant species to determine if the species is appropriate for the proposed planting location. For example, Buttonbush, an obligate species, is proposed in an upland area. Buttonbush has been removed from the plant list and replaced with Arrowwood Viburnum. Sourwoods (3) proposed in the southwest portion of the site have also been replaced with Swamp White Oak (2) and Black Tupelo (1). In our opinion, all other plant species are appropriate for their proposed location. A revised Planting Plan has been included.

Construction Debris

10. Please provide a description and plan view of the aerial extent and depth of the construction debris (waste material) observed in the field and within the Project Site; inclusive of a description of the nature, source, and type of materials present. Our understanding is that a majority of the construction debris is from the reconstruction of Market Street which was a municipally funded project in the early 1900's. We understand an agreement between the property owner at the time and the City of Northampton allowed for the dumping of construction debris on the site. The exact depth and extent of the material is unknown, though it appears to be located in an area that covers roughly 25,000 square feet of the project site based on historic maps and aerial imagery. The western edge of the fill material is defined by a steep slope approximately 7'8' in height above the elevation of the adjacent BVW. The debris pile tapers and blends to meet existing elevations further east so the exact depth and extent over previous elevations is unknown. The material appears to include a combination of old asphalt, concrete, and aggregate base course combined with random metal scraps. Soil test pits performed in this area during previous project efforts confirmed the presence of asphalt, concrete, sand, and brick to depths of 42". Sketches SK-001 – SK-004 documenting available information about this area and showing the approximate area of the debris pile has been included at the end of this response.
11. Please describe how much of the material will be removed or regraded as part of the proposed project and if any material will be taken for appropriate disposal and/or recycling. The subsurface stormwater system proposed in that location will remove approximately 94 cubic yards of material. Excavation for the dwelling units proposed in the same location will remove an additional 45 cubic yards of existing material. All other road and utility work in the area may remove another 25 cubic yards of material, however the exact amount will be dependent on conditions found in the field at the time of

construction. All construction debris removed will be hauled offsite and disposed of in accordance with local, state, and federal requirements. Northampton's municipal wetland bylaw prohibits any work within 35' of BVW resulting in no work proposed within those limits. All other areas will be brought up to proposed grades with new screened topsoil and planted according to the project plans.

12. If any of the material is proposed to remain in place as part of the proposed project, provide additional details on the location, quantity, and type of materials proposed to remain onsite in relation to proposed structures (drainage, utilities, roads, foundations, etc.) and Resource Areas. The attached sketch provides additional clarification with regards to the material in question and the proposed site work. Material within 35' of the wetland boundary will remain in place in accordance with the City's "No Disturb Zone" required by the municipal wetland ordinance. Similarly, material will remain within landscape areas which involve clean topsoil fill over existing grades. Road and sidewalk work will entail removal of the top 6" +/- of organic material to allow for import of gravel fill for base material. Final finished grades are proposed to be higher than existing.

MA Stormwater Standards

13. Stormwater Standard #2

- a. Per the MA Stormwater Handbook, "Measurement of peak discharge rates is calculated at a design point, typically the lowest point of discharge at the downgradient property boundary. The topography of the site may require evaluation at more than one design point, if flow leaves the property in more than one direction." Please demonstrate compliance with Stormwater Standard #2 and the use of the appropriate design point for the property. The entirety of the disturbed area of construction drains toward the BVW system on the western side of the property, except for a portion of View Avenue, which is entirely outside of jurisdictional areas and drains toward North Street. Additionally, a portion of abutting properties, primarily to the east of the site, drain onto the site and are carried through the site toward the BVW. The drainage analysis for Standard #2 is based on the total peak discharge to the BVW, inclusive of the site and abutting properties in order to show zero increase in runoff to the resource area.
- b. Please demonstrate how the impact of peak discharges from the 100-year 24-hour storm was evaluated. If the evaluation shows that increased off-site flooding will result from peak discharges from the 100-year 24-hour storms, BMPs must also be provided to attenuate these discharges. As shown in the stormwater report, the proposed stormwater system has been designed to reduce the peak runoff from the site during the 100-year storm. The design point for this analysis is the point at which runoff from the site enters the BVW within the property. The BVW ultimately discharges to the brook in the eastern portion of the property, which by extension receives reduced peak flow as contributed by the project site during the 100-year storm.

In the context of the larger watershed that drains through the site, BDG has reviewed mapping from a City of Northampton drainage study¹, which provides limits of nearby drainage areas. Two drainage areas (shown as area "A" and "B" on the associated mapping) drain to the

¹ City of Northampton Stormwater and Flood Control System Assessment and Utility Plan – See attached Figure 3.1 from this study and SK-006.

segment of Bradford Brook, which runs through the project site to a brick arch culvert under Woodmont Ave southwest of the site. The project site is located entirely within Area B from the City mapping. Runoff from these drainage areas was analyzed under the 100-year storm, considering the project site under pre-development and post-development conditions to analyze flooding downstream from the site. The arch culvert was used as a study point as it is the next downstream structure that would control flow after it exits the project site. Lidar topography from the Mass GIS database was utilized to model runoff storage within the wetland system east of the development site during the design storm to estimate water elevations during pre-development and post-development conditions. HydroCAD modeling utilized the site stormwater model for the study area described in the project stormwater report. Offsite runoff was modeled based on the above-referenced drainage mapping, review of aerial photos, and MassGIS data to determine ground cover and time of concentration inputs. (See SK-007, attached) The resulting HydroCAD modeling is attached. The HydroCAD output shows that the modeled peak water surface elevation increases by 0.02' to 132.54, which is a negligible difference.

We also note that the proposed project has been designed to meet the Northampton Stormwater Regulations, which requires use of the "NRCS Atlas 14 Plus" design storms, which are much larger than the NRCS Technical Paper 40 (TP-40) Atlas storms that are part of current DEP policy. The proposed system is designed to provide zero increase in runoff from the 100-year storm of 11.30" (Atlas 14 Plus) as compared to 6.4" under TP-40.

- c. Please clarify why the model for SIS #1 assumes SIS #1 is present for the 2-year storm event, but absent for the 10- and 100-year storm events. The primary purpose of SIS #1 is to provide for groundwater recharge and water quality treatment, in accordance with Stormwater Standards #3 and #4. By providing this infiltration, significant attenuation is provided for smaller storms. The stormwater system is designed to divert larger flows, including the 10-year and 100-year design storms to SDS #1 utilizing a diversion structure with weir similar to the description under "Partial or Off-line Exfiltration Basin Systems" described on Page 88 of the Stormwater Handbook, Volume 2, Chapter 2. The stormwater model conservatively analyzes the system assuming that SIS#1 does not contribute storage in the larger storms by omitting this storage from the model during those events.

14. Stormwater Standard #3

- d. In accordance with Stormwater Standard #3, there must be at least a two-foot separation between the bottom of the infiltration structure and the seasonal high groundwater table. Please clarify how the current design complies with this requirement or modify the design accordingly. 2-foot separation is measured from the bottom of StormBrixx chambers. Stormwater modeling and calculations supporting Standard #3 ignore aggregate materials below the chambers. Detail 4 on Sheet LC-501 has been revised to include sand/gravel material in lieu of open stone, which is in accordance with the chamber manufacturer's recommendations and prevents this portion of the assembly from acting as storage which may reduce the effective separation to groundwater. As shown on LC-131, bottom of chamber elevation is at least 2 feet above seasonal high groundwater as determined in the relevant test pit.
- e. Please clarify why TP#1 was not collected in the proposed location of SIS #2. TP-1 was collected

in the location anticipated prior to complete of design work. As the design was iterated, it became necessary to move SIS #2 east. Due to the small size, the resulting location of SIS #2 is approximately 18' from the test pit.

- f. Please clarify each of the inputs for the groundwater mounding analysis for SIS #2.
- i. Recharge rate, $R = 0.54$ feet/day – equal to 0.27 in/hr as used throughout the drainage analysis
 - ii. Specific Yield, $S_y = 0.2$ – for fine sand per log of test pit TP-1
 - iii. Horizontal Conductivity, $K = 5.4$ feet/day – 2×10^{-5} m/s (Schwartz/Zhang, *Fundamentals of Groundwater*, 2003 – maximum value for silt, mid-range value for fine sand)
 - iv. 1/2 basin length, $x = 13.86'$ – total basin length is 27.71' to outside of stone (conservatively assumes basin is “squared off” with additional contributing area)
 - v. 1/2 width of basin, $y = 9.90'$ – total basin width is 19.81 (conservatively assumes basin is “squared off” with additional contributing area)
 - vi. Duration of infiltration, $t = 1.7$ days – equal to 40.9 hours, drawdown time determined under discussion of Standard #3 in the stormwater report
 - vii. Initial thickness of saturated zone, $h_i(0) = 5.67'$ – distance between water table and the bottom of test pit, per log of TP-1, actual depth to restrictive layer may be deeper than bottom of test pit

Sincerely,

Berkshire Design Group



Jeffrey Squire, R.L.A.
Landscape Architect

Attachments:

- SK-001 Fill Limits
- SK-002 Fill Removal
- SK-003 1986 Aerial
- SK-004 1965 Topographic Map
- SK-005 FEMA Flood Map
- SK-006 Northampton Drainage Map

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View Avenue

Response to DEP Information Request #2

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SK-007 Drainage Area Map – Flood Impact Analysis Under 100-Yr Storm

USACE-Wetland Determination DataFrom_FlagA69

KingSt_WilliamSt_DrainageArea_Map

Flood Insurance Rate Map – Community-Panel Number 250167 0002 A

LC-101 Existing Conditions-revised 01.09.25

LC-120 Layout Plan_revised 01.09.25

LC-501 Site Details revised 01.09.25

LC-503 Site Details_revised 01.09.25