

January 7, 2021

Ref: 15392.00

Leicester Planning Board Town of Leicester 3 Washburn Square Leicester, MA 001524

Re: Response to Comments on Peer Review for

Leicester Central, 0, 90, 92 Huntoon Memorial Highway

Dear Planning Board:

On behalf of JMC/TBG Leicester, LLC (the "Applicant"), VHB is pleased to provide the following responses to the comments/questions raised in the Peer Review Letter prepared by Quinn Engineering, Inc. dated January 4, 2022 regarding the proposed Leicester Central Development (the "Project").

For ease of reference, VHB has provided a copy of each comment in italics followed by our response in plain text.

General Comments

Comment 1. "Plans indicate that the proposed water tank will supply a fire protection water main loop. Will a pump station be required to charge the fire protection water main loop? And if so, will the pump station have a standby generator to supply power, in the event of a utility power failure?"

Response: A diesel powered fire pump equipped with emergency backup power will be located within the building to charge the fire protection water main loop. Power to start the pump will be supplied by a battery backup system in the event of a power outage.

Comment 2. "It may be appropriate that provisions be made to permit Leicester Fire Department access to fire hydrants onsite, which will likely have greater fire flow capacity than municipal hydrants on Huntoon Highway."

Response: The Applicant will develop an agreement with the Leicester Fire Department for use of the site hydrants in the event of an emergency.

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Comment 3. "The Gravel Wetland, a stormwater basin, extends into the Suburban-Agricultural (SA) zoning district.

In the SA district, uses including "manufacturing or industrial" and "storage warehouse" are prohibited.

There is some question as to whether stormwater facilities which support a use are equal to that use.

Leicester Planning Board may wish to consult with legal counsel on this question."

Response: The prior Site Plan Approval for this site (SPR2009-02) allowed a similar basin for that development to be located within the SA zoning district. Additionally, stormwater facilities are a passive use that do not require a structure or building permit for any activities incidental thereto and are allowed in the SA zoning district. Stormwater facilities have been designed in accordance with MA DEP regulations. This question was raised to the prior Town Planner, Michelle Buck, early in the design process and her response was sent in an email to VHB and the Applicant on September 27, 2021, included here:

"Except for the ability to extend 30' into another zone (Section 2.3.04 of the Zoning Bylaw), access drives, structures, and parking areas would have to be in the HB-2 district. I don't see a problem with a passive use such as stormwater basins being in the more restrictive district (SA). The Board previously allowed a stormwater system in the SA portion of the site, though I'm surprised they allowed it right up against the property line. It should have been set back at least 50' (with waiver to allow reduction from 100' to 50' buffer) with screening vegetation (existing vegetation would work if thickly wooded)."

Considering this response from the Town Planner, VHB set the basin just over 150-feet from the property line to ensure that it is well beyond the 100-foot buffer (or 50-foot allowed by a waiver).

Comment 4. "Site plans show locations of site lighting, but should identify the height and appearance of the poles and identify luminaires. REF: Site Plan Review Regulations, Section II, F, 5."

Response: The Photometrics Plans (Sheets SL-2C & SL-2D) list the modeled mounting heights of the free-standing light poles as 18 and 25 feet in the driveways and parking and loading areas, respectively. Wall mounted lights are modeled at a height of 25 feet. The heights are shown at each light location and denoted as "MH: 18.16" or "MH: 25". However, the luminaire schedule will be updated to include the mounting heights, and a section view of the pole will be added to the final set of plans to show the pole types and heights more clearly on the plans.

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Comment 5. "Location of earth removal/filling and volume of material to be moved not found on plan. REF: Site Plan Review Regulations, Section II, F, 9."

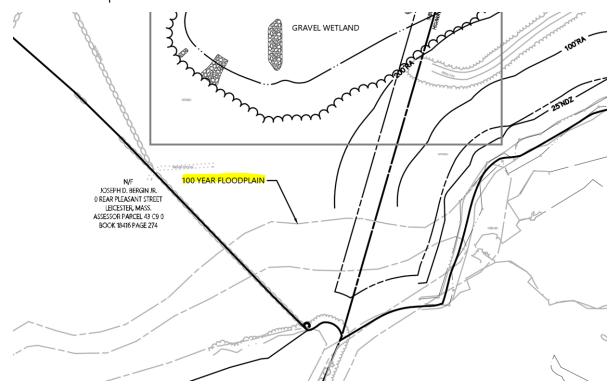
Response: Sheet C4.00 has been updated to include the note below describing the total volume of material to be moved and result of proposed earthworks. The location of earth removal/filling is within the limits of the Project site.

Notes

 THE PROPOSED DEVELOPMENT REQUIRES APPROXIMATELY 47,000 CY OF OVERALL EARTHWORKS, RESULTING IN A NET IMPORT OF APPROXIMATELY 24,000 CY.

Comment 6. "Plans should identify the status of the site in relation to flood plain. If flood plain exists onsite, it should be identified on the plan."

Response: There is a small area of 100-year floodplain located on the Site within the most southerly corner where Grindstone Brook enters Rochdale Pond. The line is well outside the limit of work so it does not show up on the detailed plan sheets, however it is visible on Sheets C2.00 & C4.00 but is not labeled. VHB has added a label to clearly identify the 100-year floodplain on those sheets.



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Stormwater Comments

Comment 7. "On Sheet C6.03, the Gravel Wetland is to be planted with plugs from plant list on planting plan. The planting plan, Sheet L1.00, lists only trees."

Response: The Plant Schedule on sheet L1.00 has been updated to list plant designations that will be used in the Gravel Wetland, as shown below.

PLANT SCHEDULE

DECIDUOUS TREES QC QR	<u>QTY</u> 6 5	BOTANICAL NAME Quercus coccinea Quercus rubra	COMMON NAME Scarlet Oak Red Oak	<u>SIZE</u> 2 1/2 - 3" CAL. 2 1/2 - 3" CAL.	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	<u>SIZE</u>	
AC	8	Abies concolor	White Fir	6 - 7` HT.	
GRAVEL WETLAND IV-P JE-P LS-P ZA-P	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	388	Iris versicolor	Blue Flag	Plugs	12" o.c.
	1,648	Juncus effusus solutus	Soft Rush	Plugs	24" o.c.
	388	Lobelia siphilitica	Great Lobelia	Plugs	12" o.c.
	412	Zizia aurea	Golden Alexander	Plugs	24" o.c.

Comment 8. "In the hydrologic analysis, Subcatchment PR2 flows to Basin P2, the Gravel Wetland. In the analysis, the culvert into Basin P2 is modeled as a 24" diameter culvert, but the plans call out a 36" culvert."

Response: The Site Plans and pipe sizing are consistent and show the 36" diameter pipe. VHB has updated the hydrologic model to be consistent with those, using a 36" diameter pipe. Peak rates of stormwater runoff across all storm events still decrease in the proposed conditions.

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.9	50	0.0100	0.90		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 3.17"
2.0	242	0.0100	2.03		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
1.9	1,190	0.0100	10.22	72.26	Pipe Channel,
					36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75'
					n= 0.012 Corrugated PP, smooth interior
4.0	4 400				T- FAin

4.8 1,482 Total, Increased to minimum Tc = 5.0 min

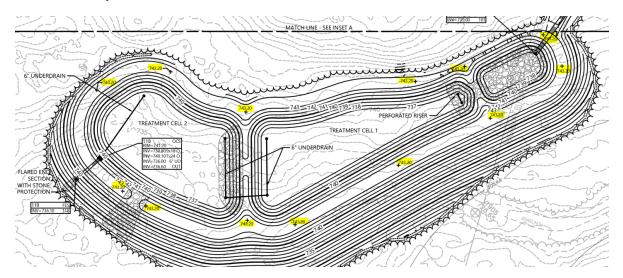
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Comment 9. "The hydrology indicates that Basin P2 has a peak water elevation of 742.2 under the 100-year storm.

In that basin, the berm elevation is 743.0. It is good engineering practice to provide 1 foot of freeboard above the high-water level; the berm does not provide that."

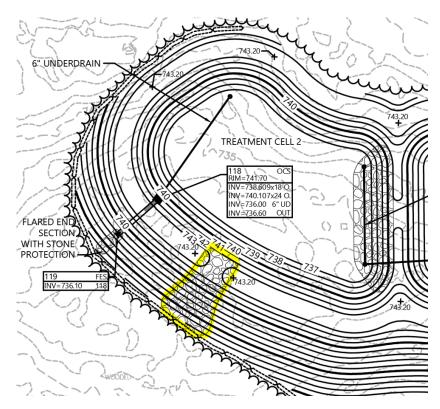
Response: Site Plans have been updated as shown below to include spot shots along the top of the berm indicating a finished grade of 743.2 and therefore 1-foot of freeboard above the 100-year storm elevation for Basin P2.





Comment 10. "It is recommended that Basin P2 have an emergency overflow, to allow for controlled passage of water over the berm, in the event the outlet becomes fouled, or an excessively high storm flow occurs."

Response: Site Plans have been updated to show a stone-lined emergency overflow for Basin P2.



VHB has updated the site plans and stormwater model in accordance with the responses and screenshots included herein. An updated stormwater management report and revised site plans documenting the revisions will be submitted once all Town comment letters are received, which will also address any additional comments received through the Planning Board and Conservation Commission public meetings.

If you have any questions or need additional information in the interim, please feel free to contact Justin Dufresne at (508) 513-2709, jdufresne@vhb.com or Rich Whitehouse at (508) 513-2719, jdufresne@vhb.com.

Sincerely,

Justin Dufresne, PE Managing Director, Worcester Rich Whitehouse Project Manager