

December 3, 2024

City of Worcester
Planning Board
City Hall Room 404
455 Main Street
Worcester, MA 01608

Copy: Tim Johnson, 22 Waverly LLC

RE: **Test Pits**
22 Waverly Street
Worcester, MA 01604

Dear Members of the Board:

At the request of the applicant Kelly Engineering Group, Inc. conducted test pits within the area of the 2 proposed subsurface recharge systems as shown on the site plans prepared by A.S. Engineering, last revised 10/22/24. Kelly Engineering also reviewed the Stormwater Report prepared by A.S. Engineering dated August 22, 2024. The test pits were performed by a certified soil evaluator.

Test Pit 1 was conducted within the location of the upper parking lot recharge system. The pit was excavated to a depth of 4' below the bottom of the proposed recharge system and no water was observed or evidence of seasonal high groundwater. The soil was consistent with the sandy loam material utilized within the stormwater report prepared by A.S. Engineering.

Test pit 2 was conducted within the location of the lower parking lot recharge system. The pit was excavated to an elevation of 503. At this elevation the pit was caving due to the presence of sand and the pit was terminated. The proposed bottom of stone for this system is 505.5. No water or evidence of seasonal high groundwater was observed to within the pit to elevation 503. From elevation 511-505 fill material was encountered. From 505-503 parent material consistent with a gravelly sand was observed which was consistent with the design assumptions within the A.S. Engineering Stormwater Report.

Test Pit 3 was also conducted within the location of the lower parking lot recharge system. The pit was done at elevation 518 and completed down to elevation 508 which was the maximum reach of the excavator. Fill was encountered to elevation 514. From elevation 514-508 a gravelly sand material was observed, and no water or evidence of seasonal high groundwater was observed, consistent with the design assumptions within the A.S. Engineering Stormwater Report.

It is advised that during construction all fill material within 2' of the bottom of the proposed recharge system be removed and replaced with a sand material. It is also advised that additional pits be completed within the lower recharge system during construction once the site is fully excavated to allow for deeper explorations. Overall, the soil conditions encountered are consistent with the design assumptions.

If you have any questions or desire additional information, please feel free to call the office at 781-843-4333.

Sincerely,

KELLY ENGINEERING GROUP, INC.



Garrett Horsfall, Senior Engineer
Soil Evaluator #13863