

**CITY OF NEWTON**  
ENGINEERING DIVISION

MEMORANDUM

To: Jennifer Steel, Senior Planner ~ Conservation Commission Administrator

From: John Daghlian, Associate City Engineer

Re: Albemarle Playground North & Multi-Use Path

Date: July 23, 2024

CC: Lou Taverna, PE, City Engineer

---

In reference to the above site, I have the following comments for a Notice of Intent & plan entitled:



June 18, 2024

**ALBEMARLE PARK**  
**NEWTON, MASSACHUSETTS**

PREPARED FOR:  
CITY OF NEWTON

SUBMITTED TO:  
NEWTON CONSERVATION COMMISSION

Prepared by: 

This project entails the reconfiguration of the athletic fields, construction of six new pickle ball courts, one basketball court and enhanced multi-use paths looped throughout the park and connections to adjacent streets, and properties. Currently the park has little to no stormwater management system. The proposed system will enhance stormwater infiltration and overall water quality coming off the park and discharging to groundwater and eventually to the Cheesecake Brook. The engineer of record has designed a system of bioretention swales to receive and treat stormwater runoff to the maximum practical extent with overflow connections to Cheesecake Brook and the City's stormwater system in Crafts Street. The design is based on an 8.09 -inch of rainfall over a 24-hour period; however, the City standard is 8.78-inches over the same period.

Based on the scope of work this project would need to comply with the City Stormwater Ordinances, specifically with the Major Stormwater permit requirements: the drainage calculations did not include the requirement to retain the volume of runoff equivalent to

or greater than two (2) inches multiplied by the total post construction impervious surface area on the site. Additionally, the drawdown time calculations for the bioretention swales requirement within 72 hours were not included.

The following is a breakdown of the various construction activities within the jurisdiction of the Commission:

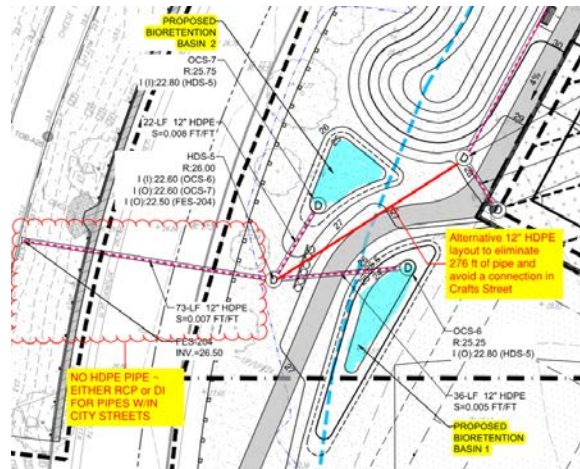
Table 1 – Summary of Wetland Resource Area Impacts for Proposed Park

Wetland Resource Area	Proposed Impact	Proposed Replacement
Bordering Land Subject to Flooding	87,583 SF +804 CY fill; - 2,440 CY cut	1,636 CY net cut
200-foot Riverfront Area	110,640 SF	42,080 SF
100-foot Buffer Zone	30,902 SF	--
25-foot Native Buffer Zone (Local Newton Conservation Commission Resource Area)	0 SF	--

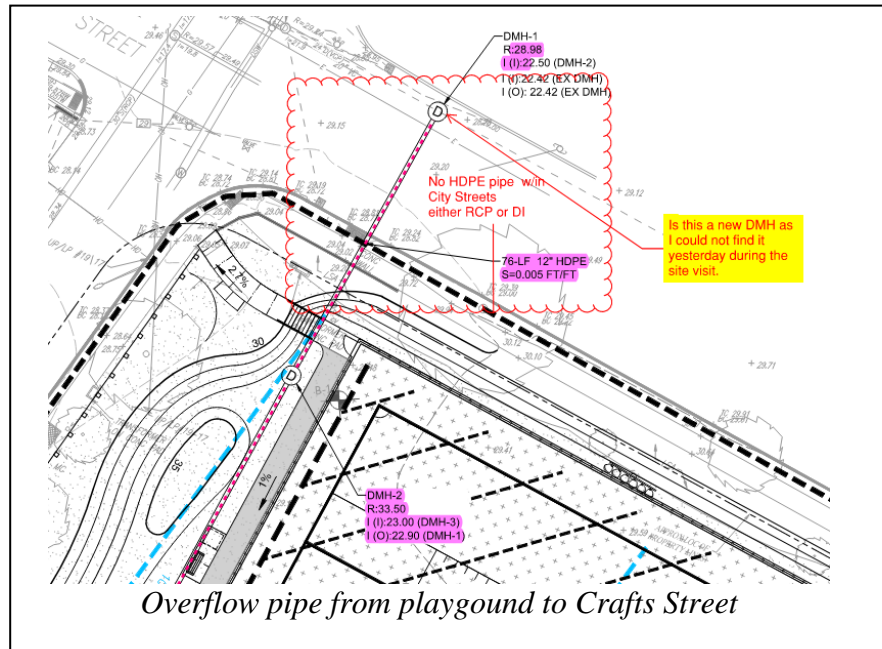
The proposed Operation and Maintenance (O&M) Plan addresses the design intent, however; there was no protocol for the sweeping of the proposed multi-use paths that more than likely will be plowed with City equipment and possibly salted/sanded during snow operations. Parks & Recreation should indicate if snow removal and sand/salt operation will occur, then the O&M plan would need to be updated reflect this maintenance activity.

The City requires that test pit be performed within 25 feet of each proposed infiltration system, the three test pits performed were several hundreds of feet from the proposed bioretention swales. DPW will require additional test pits for these proposed system as they are all beyond the 25-foot requirement.

The new overflow pipe to Cheesecake Brook as shown as HDPE, this is not permitted within City street; the overflow pipe shall be either reinforced concrete pipe type 4 or ductile iron pipe class 52.



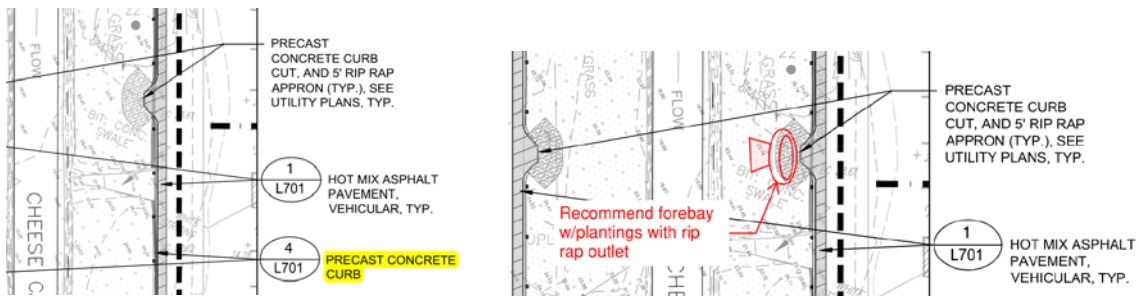
In the snapshot of sheet C-100 following, shows a 12” overflow pipe from the southwest corner of the soccer field heading towards Crafts Street; approximately 276-feet of pipe. Based on a site visit yesterday the drain manhole shown on the plan did not exist within Crafts Street. I would recommend that the 276 feet of pipe be eliminated and connected to the proposed overflow to Cheesecake Brook.



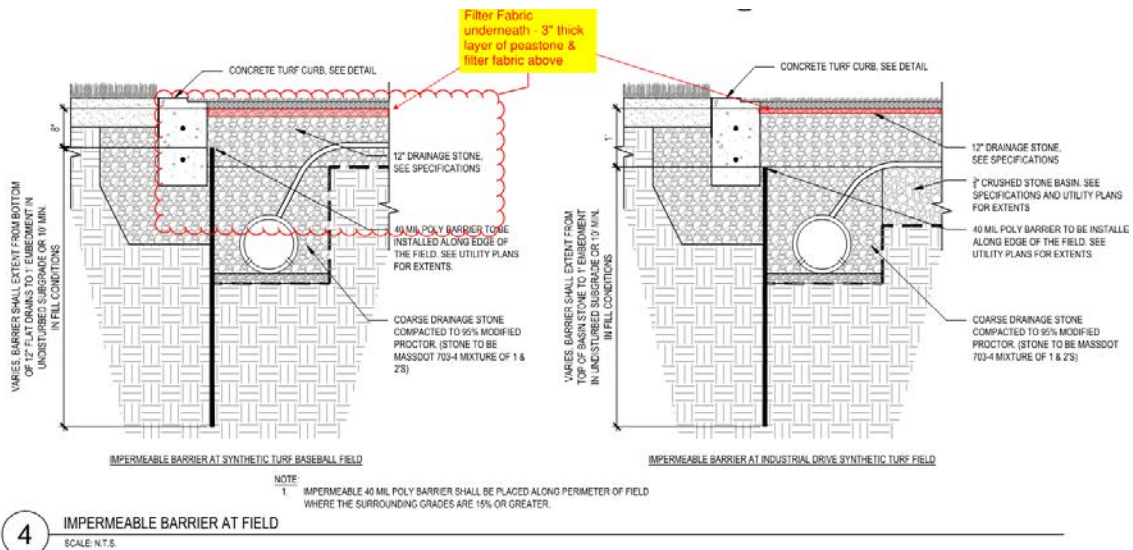
*Crafts Street looking southerly toward the park, no sign of the manhole as shown on sheet C-100.*

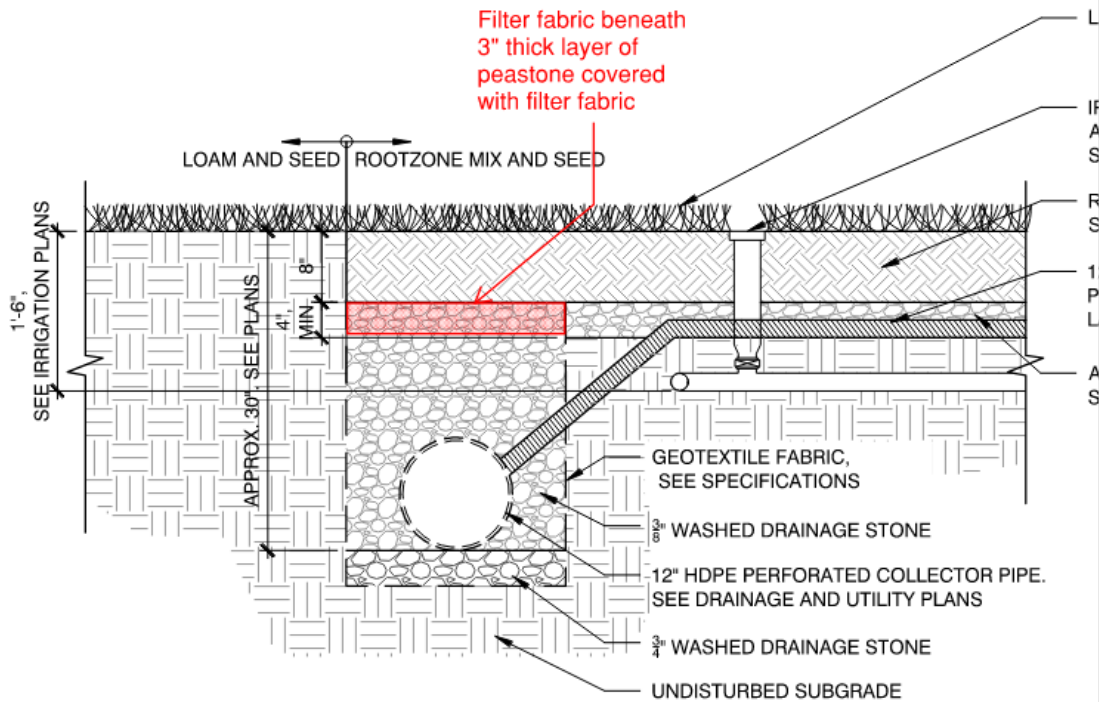
Within the project limits parallel to the edge of Albemarle Road and between the Cheesecake Brook the plan indicates that a new wood guard rail will be installed, and the asphalt curbing shall be removed, and new precast concrete curbing will be installed. The DPW standard for new curb installation is granite curb. The issue with precast concrete curb is during snow removal operations it is more than likely plows may inadvertently damage the concrete curb; and eventually the concrete curb will fail and deteriorate with road salt intrusion. DPW strongly recommends that for longevity performance of the curbing and its design intent it should be installed as standard *granite* curbing and NOT precast concrete.

The design calls for the removal of existing paved shutes that transmit the road runoff to the brook. In concert with the curb installation, openings in the curb line will be placed to allow street runoff to flow towards the brook via rip rap energy dissipaters. The DPW recommends in lieu of openings and rip rap, shallow forebays with plantings be install to “*treat*” the stormwater before it is discharged into the Cheesecake Brook to enhance water quality.



The detail for the impermeal barrier and collector drain should have filter fabric placed over the stone, then a 3” thick layer of Peastone and cover with filter fabric to prolong the performace life.



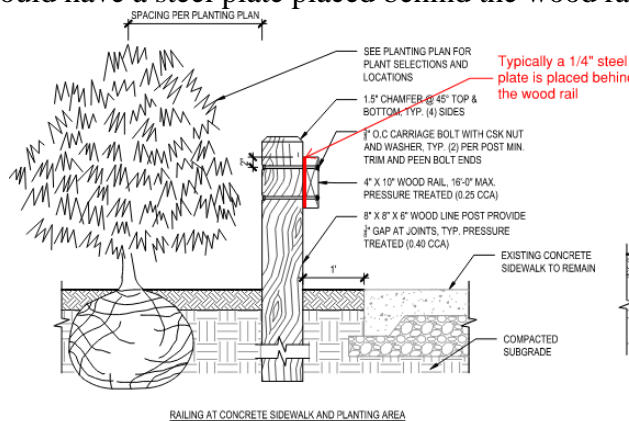


**NOTES:**

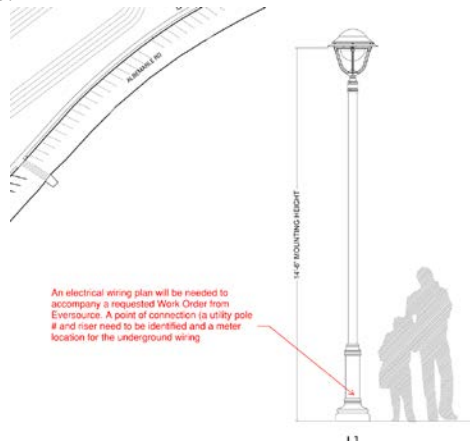
1. FLAT DRAIN TO BE DIRECTLY CONNECTED TO PERIMETER COLLECTOR PIPE. PROVIDE MANUFACTURE MAKE THE CONNECTION AS REQUIRED AND APPROVED BY THE OWNER'S REPRESENTATIVE.

**1** COLLECTOR DRAIN/ LATERAL DRAIN CONNECTION AT NATURAL TURF FIELD  
SCALE: N.T.S.

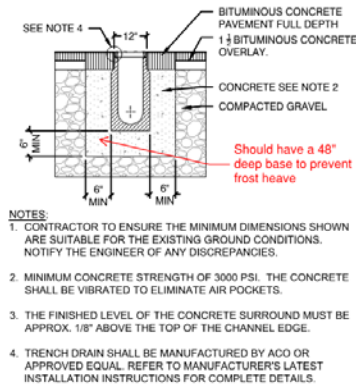
The railing detail should have a steel plate placed behind the wood railing.



To expedite any upgrades to the proposed lighting system for the fields and pathways a work order should be generated with Eversource as soon as possible, as this can take several months to process.

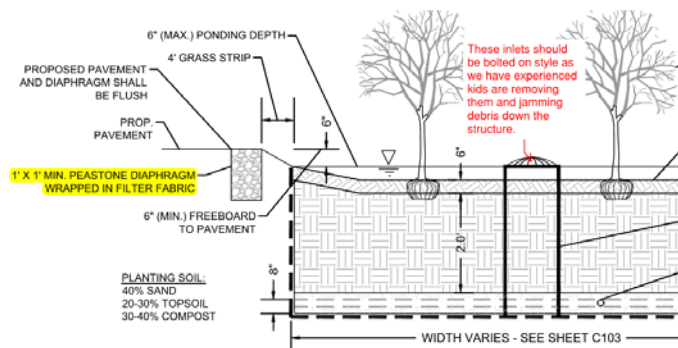


To prevent frost heaving of the trench drain it should have a 48" deep compacted gravel base.



5 TRENCH DRAIN DETAIL  
SCALE: N.T.S.

DPW recommends that the proposed inlets to the area drains be bolted type grates, as kids have removed them and stuffed debris in the structure on a few school properties.



7 BIORETENTION AREA  
SCALE: N.T.S.

All siltation control measure should be in place prior to construction and inspected by the Conservation Commissions agent. DPW recommends that a preconstruction meeting be held on site prior to any construction activities.

The eventual general contractor will need to obtain Street Opening, Trench, Sidewalk Crossing and Utility Connection permits prior to any construction, no fees will be implemented as this is a City project.

If you have any questions or concerns, please feel free to contact me @ 617-796-1023.