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Sent: Friday, May 31, 2019 10:01 AM
To: Brazee, Olivia (PARKS) <Olivia.Brazee@parks.ny.gov>
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Page, Mark <MarkPa@dep.nyc.gov>; Kelly, Kathryn <kkelly@dep.nyc.gov>
Subject: Jerome Park Reservoir (JRAQ-REH) Updated Consultation Letter

Dear Olivia,

As you may recall, SHPO previously approved the rehabilitation of the Jerome Park Reservoir on October 2016 (project number:15PR05283) under the following conditions:

1. The proposed cast-in-place buttress wall to be constructed against the existing east reservoir wall would be below the water line under normal operations.
2. Any proposed work where a 'new capstone' is proposed; the new capstone shall match the historic.
3. The Old Croton Aqueduct (OCA) and the East Basin Outlet would be recorded prior to being filled with flowable fill.

Based on ongoing monitoring of the conditions of the east wall and constructability evaluations, DEP has determined that some modifications are necessary to the approved design. We also want to note that the East Basin Outlet has since been taken out of the project scope, and work is no longer planned for it. Therefore, we would like to have this project (project number:15PR05283) re-reviewed and receive an updated consultation letter in accordance with the Memorandum of Agreement (MOA) in place for the Jerome Park Reservoir. We are also contacting the NYC Public Design Commission (PDC), as this property is owned by the City of New York and changes to the architectural character of the facility require their approval as well. We anticipate that your two agencies may want to speak directly about the proposal since it requires both of your approvals.

As a reminder, the east wall of the reservoir has been subject to severe deterioration due to leakage from the decommissioned Old Croton Aqueduct, which runs within that wall. This project will fill the aqueduct with flowable concrete in order to stop the remaining flow and the deteriorated rubble stone wall (the lower 13'-6") will be shored up with a concrete liner wall. The dimensioned stone wall above will be repaired and repointed. While DEP had originally planned to only address a portion of the east wall, primarily in the north basin, the wall has continued to deteriorate and just this last year we had a partial failure in the south basin. We are therefore amending the proposal to encompass the entirety of the east wall – both north and south basins. Additionally, our original proposal specified cast-in-place concrete for the liner wall, and DEP is looking at instead using a shotcrete installation method, which is more efficient and less expensive.

As you may know, the levels of water in the reservoir is dependent on the operational needs of the overall water supply system, which vary due to conditions of drought, turbidity (cloudiness of water due to weather events), and general usage by New Yorkers. Since the full activation of

the Croton Filtration Plant, DEP Operations has typically been keeping the north basin, the smaller of the two, drained. We do this as a failsafe, so that in the event of an unplanned or emergency shutdown of the filtration plant, we have some place to put the excess water still on its way down the aqueduct toward the Bronx. So while the original design intent was that the liner wall – like the rubble wall – would be below the water line and out of sight, it will now routinely be exposed in the north basin. It will, however, be hidden from view in the south basin, which will typically be filled with water. We have explored a variety of operational scenarios to keep both basins partially filled, but the hydraulics of the system – how the water moves from basin to basin and to the treatment plant – unfortunately preclude this.

In the previous SHPO review for this proposal, there was no comment on the liner wall with the understanding that it would be typically be below the water line. Now that it will be exposed in the north basin, we have been anticipating that your agency may request a more historic-looking finish. We have researched some options for incorporating a faux stone finish into the concrete liner, and while this is certainly something that can be done, it is considerably more expensive and time consuming. Furthermore, it is not possible to faithfully replicate the varying dimensionality (both size and profile) and tone of the rubble wall. Our recommendation is therefore for a simple finish to clearly demarcate the new from the historic. As mentioned earlier, it may be helpful for you to discuss this issue directly with PDC since both agencies have binding jurisdiction but may hold differing opinions on what finish is appropriate.

We have also amended the contract to provide for the shoring up of the existing ramp entrance down to the north basin to allow for construction vehicles to use this route. Work here includes the repair and reinforcement of the ramp and the installation of a standard vehicular guardrail to meet environmental health and safety requirements. DEP's goals for this modified rehabilitation proposal are to undertake needed repairs of this critical piece of the Croton Aqueduct Water Supply System and thus ensure the reservoir's longevity and ability to provide clean water, yet do so in a way that respects its historic status. Finally, we will ensure the recordation of the OCA by documenting all necessary information of existing conditions in a report. As noted, the East Basin Outlet is no longer part of this project. This report will include all pertinent data and dimensions, and written documentation of the OCA will be accompanied by photographs illustrating the construction details and materials.

I've included a presentation to guide you through the various design changes, and we'd appreciate the opportunity to discuss this with you. We plan to update Bronx Community Board 8 in mid-June. It would be helpful for us to have some direction from SHPO and the PDC prior to that presentation.

Thank you for your help,
David

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