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**MEMORANDUM**

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**TO:** STEVE GIESBRECHT, BOROUGH MANAGER  
**FROM:** KARL HAGERMAN, UTILITY DIRECTOR *KH*  
**SUBJECT:** PUMP STATION 4 UPDATE AND FINAL DESIGN AWARD RECOMMENDATION  
**DATE:** 4/25/23  
**CC:** DEBBIE THOMPSON, BOROUGH CLERK  
FILE

As you know, the project to replace the Pump Station 4 force main has been progressing after a pandemic related hiatus. As the Borough also had a need to improve/replace the pump station itself, and not just focus on the force main, the scope has grown substantially from the initial project. Most recently, PND Engineers completed a technical memorandum that identified various options for the layout of the new pump station, the extent of electrical upgrades and options for installation of the force main and gravity sewer. Wastewater department staff and I met with the Engineer and settled on a preferred alternative to move the project forward. Our goals were to undergo a project that would remedy any existing problems, but also provide the best long-term solution to the Borough for this particular station.

The preferred alternative, identified in the tech memo as Option A.2.3, will install a new wetwell and valve vault to the south of the current pump station. Procurement of property from the adjacent property owner will be part of this alternative, with a prospective no-cost land swap being the recommended solution. Due to the extreme depths required to site the new wet well, building in this location has fewer risks associated with undermining adjacent private structure foundations as well as the existing standby generator building.

Electrical code issues with the 1980's era service entrance and paneling will be resolved by expanding/rebuilding the electrical/generator building to accommodate new pump controls, which were previously located below grade in the pump drywell. The existing generator will be retained as well as the existing automatic transfer switch.

The engineers contemplated "floating" some of the gravity sewer as part of the project, as a cost savings, but the cost savings were not as significant as we had imagined and this would be a lesser construction standard to be sure. It is better for the long-term function of the gravity mains if they are not susceptible to settlement or movement, therefore all gravity sewer will be supported to hardpan, while the force main will be floated for its entire length. Further, the routing of the force main and gravity sewer could be considered as a first step in the development of a limited number of building lots in this area.

Lastly, some survey work and replatting will be necessary to establish a right of way through the subdivision for Ramona Street, which will connect with Augusta Street and on to Sandy Beach Road.

This project has grown since its inception but the issues with the pump station have also grown since the department started looking at this work. The force main is corroded and must be replaced. One pump, out of three at the station, is currently not in service due to

debris in pipes and non-functioning isolation valves. The electrical service does not meet current code and should be replaced to ensure safety at the site. All pump controls will be moved above ground and the new pumps will be submersible. As this is our second largest station, that accepts all wastewater flow south of Hungry Point, it is a vital piece of infrastructure that must be refurbished.

Current engineering estimates have option A.2.3 estimated to cost \$3,337,177. The department is presently seeking approval from ADEC for a loan increase to cover all design and construction costs associated with this design. The Borough has already received a loan for \$360,000 toward design and construction of the project, but as the scope of work has grown by combining the force main replacement with the pump station replacement, the cost has grown substantially as well.

In order to maintain momentum on this project, I recently requested PND Engineers to provide a proposal to complete construction documents, surveying for right of way and land acquisition, permitting, bid phase support and construction administration and inspection. The proposal came in at \$361,449.00. After some negotiation, a revision was offered that lowered the overall cost of the proposal and split out work up to the bid phase so that a partial award may be made at the present time with the project budget that is in hand. The revised proposal came to \$348,952 overall, with tasks 4 – 10 broken out for the next step of contract amendments to equal \$245,600.

**At this time, the wastewater department is recommending that PND Engineers be awarded a contract amendment in the amount of \$245,600 to complete project design, permitting, survey and platting for the Pump Station 4 Replacement project.**

Copies of the Pump Station 4 Alternatives Assessment Technical Memorandum, as well as the initial final design proposal and the revised proposal, are attached to this memo. I'll be happy to answer any questions that you or the Assembly may have.

Thank you.