

Agenda Report

Subject: **Authorization for Bidding: Winnetka Avenue Pump Station Improvements**

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Date: July 10, 2013

Project Description. The existing Winnetka Avenue Pump Station, constructed in 1995, provides stormwater drainage for a large area of western Winnetka (over 900 acres and over 1,700 parcels). The pump station is located at the point where a ditch on Cook County Forest Preserve property, to which western Winnetka's main storm sewers discharge, enters the Skokie River, just north of Winnetka Avenue. The pump station is necessary because during times of flooding, the water level in the Skokie River is much higher than the level of the water in the ditch. While the ditch is protected by backflow preventers so that the river water cannot flow back into the Village's systems, the high levels mean that the only way water can exit the Village's system is through pumps.

As part of the overall drainage improvement program developed by Christopher B. Burke Engineering, Ltd. (CBBEL), the capacity of the pump station needs to be increased in order to improve the flow in the Village's upstream storm sewers. The recommended improvements consist of replacing the four existing SRS-Crisafulli pumps with submersible axial-flow pumps, which increases the station's capacity from under 40,000 gallons/minute to 60,000 gallons/minute. Additional improvements include electrical power and service improvements, as well as reconfiguring the intake structures. The plan also proposes installing an automatic bar-screen cleaner to eliminate the need to send Village personnel into the ditch during storm events to clear debris from the intake grates.

Project Benefit. The project provides benefit to the southwestern portion of the Village by increasing the discharge capacity of the Forest Preserve Ditch, which will reduce the tailwater effect of the ditch on the Village's storm sewer pipes that discharge to the ditch. Primary benefits will be experienced along Hill Road, Willow Road, and Hibbard Road, and on the neighborhoods that discharge to those systems, including the "tree streets", the Appletree/Broadmeadow area, and southwest Winnetka. The project will also increase the operating reliability of the station, and reduce manpower requirements and staff safety concerns, by automating the process of clearing debris from the station intake grates.

Estimated Cost. The project was initially estimated to cost \$750,000. CBBEL has completed a detailed cost estimate based on the final design documents and the current cost estimate is \$1,002,300. The reason for the increase is threefold. First, the Forest Preserve District specifically required fencing around the pump station, for security and also to screen the pump station, and also landscaping to screen the fence. This has added

about \$20,000 to the project. Second, about \$70,000 of additional cost is attributable to a modified design of the proposed bar-screen cleaner to lower its profile and address safety concerns raised by the Forest Preserve District. Third, the final design allowed refined cost estimates for the pumping and electrical components. Finally, it is important to note that this estimate still contains a 10% contingency (\$91,100) which is a conservative approach at bidding time. This contingency is being carried due to the uncertainty of the construction dewatering methods that will be selected and bid by the contractor.

Proposed Schedule. Staff proposes to bid the project in August, and to bring an award recommendation to the Council at the September 17 Council Meeting. The pumps and electrical components are long-lead items (12 weeks), meaning that construction will commence in December and should be complete by April 1, 2014, in time for the spring thaw and wet season.

Recommendation:

Consider authorizing staff to proceed with bidding for the Winnetka Avenue Pump Station Improvements.