



CITY OF KIRKLAND
Department of Public Works
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MEMORANDUM

To: Kurt Triplett, City Manager

From: Aaron McDonald, P.E., Senior Project Engineer
Dave Snider, P.E., Capital Projects Manager
Kathy Brown, Public Works Director

Date: April 21, 2016

Subject: KIRKLAND DECANT FACILITY UPGRADE – ACCEPT WORK

RECOMMENDATION:

It is recommended that the City Council take the following actions:

- Accept the work performed by Santana Trucking & Excavating of Redmond WA for the construction of the Kirkland Decant Facility Upgrade, thereby starting the statutory lien period, and
- Receive an update on the future NPDES Permit compliance needs for the Maintenance Center.

By taking action on this memo during approval of the consent calendar, City Council is accepting the work for the Kirkland Decant Facility Upgrade; no further action is needed on the NPDES Update at this time.

BACKGROUND DISCUSSION:

As required by the City's National Pollutant Discharge Elimination System Permit (NPDES), and consistent with ordinary maintenance practices, the City operates a waste water/solid decanting facility. This facility receives materials (liquids and solids) generated during routine cleaning of the City's storm drainage system, including street sweeping operations, as well as from certain maintenance related to the sanitary sewer system. The waste materials are placed in bays where the liquid separates from the solids through gravity; the liquid portion is then discharged into the sanitary sewer system under a separate permit with King County Wastewater. The solid portion is stockpiled for removal by a sub-contracted trucking firm and ultimately disposed of at a permitted hazardous waste landfill. With the approximately 60 percent increase in surface water infrastructure and street sweeping following the 2011 annexation of the City's northern neighborhoods, the former system was inadequate to meet the City's expanded needs.



In order to provide additional capacity, remove additional material from the discharge stream, and reduce maintenance needs, the subject Project accomplished the following:

- Added a second settling vault to provide more complete removal of solids, allowing for an increase in permitted discharge capacity;
- Added a new vault to remove solids from the decant discharge prior to entering the sanitary sewer system;
- Added flow-monitoring equipment to accurately track total daily discharge of liquids to the sanitary sewer system (see bullet below discussing radio telemetry system);
- Replaced a deficient roof over the decant solid bays to cover two additional bays that were uncovered (picture above);
- Replaced existing distressed/failing asphalt in the decant operations area;
- Provided two water-quality treatment facilities to mitigate run-off from the paved area prior to discharge to the surface water system;
- Provided a radio telemetry system to accurately track liquid discharges to the sanitary sewer system (discharges in excess of the allowable permit amount can result in substantial monetary fines); and
- Installed a 10 foot truck scale to aid in tracking both decant solid amounts and materials used in daily operations by maintenance.

The Project's original budget of \$1,268,200 was a combination of City surface water funds of \$317,100 and a \$950,900 grant from the Washington State Department of Ecology's Municipal Stormwater Capacity Program. At the time of award, City Council approved a budget adjustment of \$125,200 using Surface Water Construction Reserve funding to increase the total Project budget to \$1,393,200. With a construction contract award amount of \$859,542.15, the total amount earned by the contractor was \$939,175.24, including six change orders for unknown and changed conditions encountered during construction.

The total of all Project costs, including those for the increased design, construction administration for the added costs associated with the changes encountered, will essentially exhaust the Project budget of \$1,393,200. At the time of final project close-out, remaining funds will be returned to the Surface Water Construction Reserve (Attachment B).

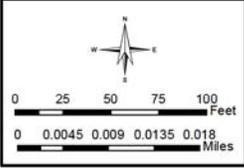
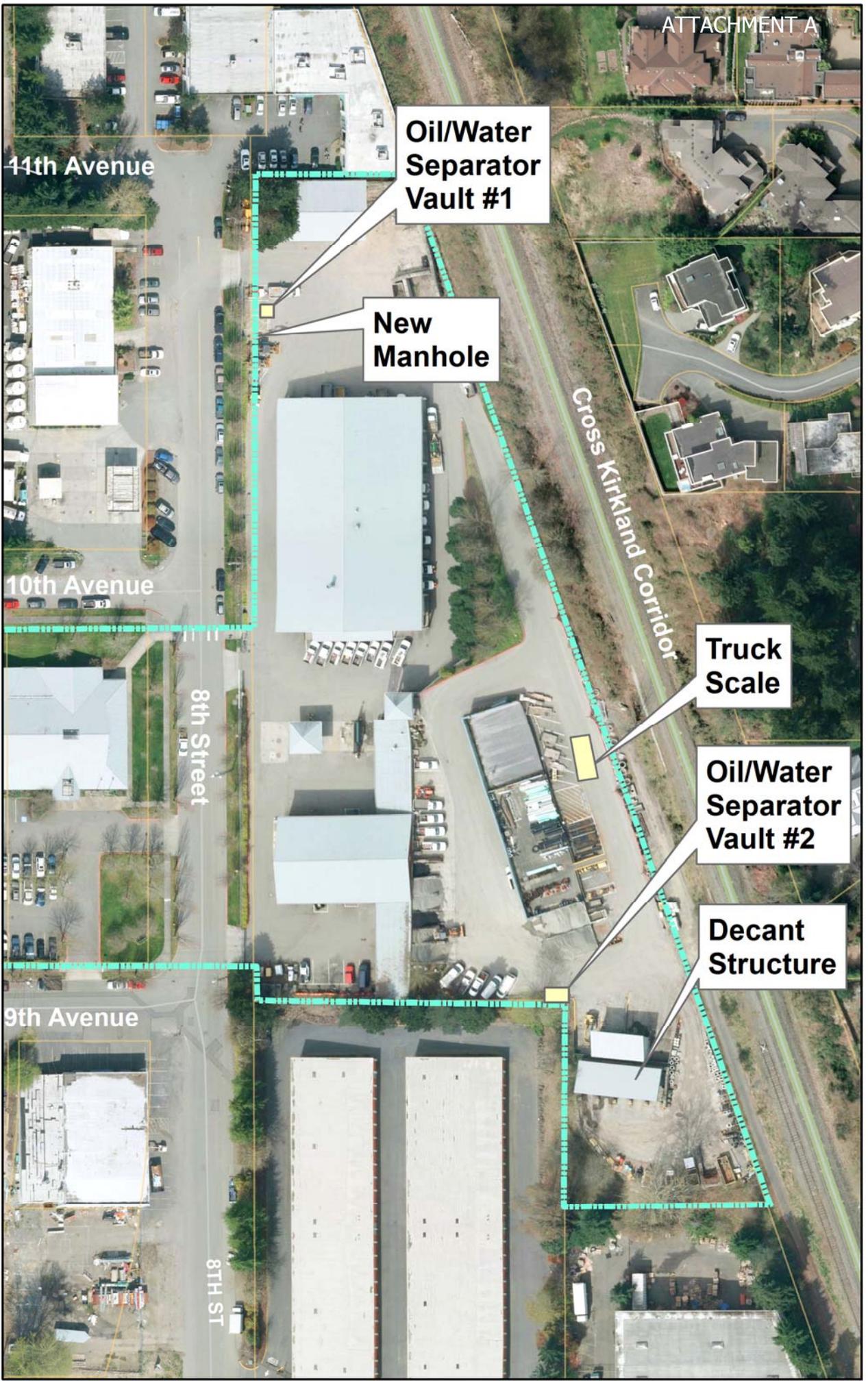
Maintenance Center NPDES Permit Update

As staff continues with efforts ensuring city compliance with the current NPDES Permit, additional best management practices have been identified focusing on yard operations including materials storage and handling. Staff has identified a need for covered storage and run-off control for certain materials stored in the maintenance yard. Temporary and labor intensive measures of covering materials with tarps and placement of berms to collect runoff for disposal in the sanitary sewer are currently being implemented.

To meet long-term needs and to provide enhanced environmental protections for Permit compliance, staff is investigating materials storage options to include stock-pile cover facilities and additional direct discharge through sanitary sewer connections. The costs of varying storage options, such as fabric covered material bins, shown at right, are being assembled and staff will return to City Council with a recommendation for funding the added improvements, currently estimated to be in range of \$100,000 to \$200,000.



Kirkland Storm water Decant Upgrades



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Author:
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Decant Facility Upgrade
SD 0082-000

Attachment B

Project Budget Report

