

Clay Township Regional Waste District

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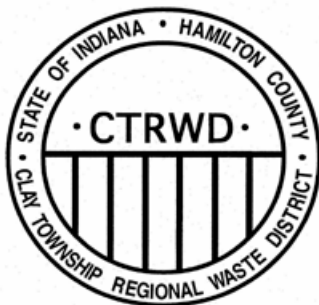
CAPITAL & CONSTRUCTION COMMITTEE MEETING

Monday, March 12, 2018 at 6:30 P.M.
10701 N. College Ave, Suite A, Indianapolis, IN 46280

AGENDA

1. Public Comment
2. Dedications
 - a. Village of WestClay Uptown Section 6003-B
 - b. One One Six Apartments Phase II
 - c. Clay Corner
3. #1601 106th Street Parallel Force Main Change Order 1
4. Other Business
5. Capital Project Updates
 - a. #1701 – WWTP Post-Treatment Improvements
 - b. #1702 – Keystone/96th Sewer & Force Main Relocation
 - c. #1705 – 99th Street Sewer Extension & Lift Station 6 Elimination
 - d. #1707 – Neighborhood Sewer Projects
 - e. #1801 – Lift Station 4 Elimination
 - f. #1901 – Lift Station 14 Parallel Force main
 - g. Jackson's Grant Sections 2 & 6 Oversized Sewers

Date and time for next meeting: Monday, April 2, 2018 at 4:30 pm



MEMORANDUM

To: C&C Agenda
From: Ryan Hartman
Date: March 2, 2018
Subject: Dedication

Village of WestClay Uptown Section 6003-B, One One Six Apartments Phase II, and Clay Corner sanitary sewers are complete and ready for dedication.

Recommended Action: Accept the dedication of Village of WestClay Uptown Section 6003-B, One One Six Apartments Phase II, and Clay Corner sanitary sewers.



MEMORANDUM

To: C&C Committee

From: Wes Merkle

Date: March 7, 2018

**Subject: #1601 106th Street Parallel Force main
Project Change Order 1**

The following changes are included. Cost and time changes increase contract price and time respectively, unless noted otherwise below.

- HDD Bores 1 & 8 (\$49,140, 10 days). Because of conflicts with existing utilities, the new force main had to be installed much deeper below Mayflower Park Drive than originally planned. Drilling at depths of 20 feet or more comes with greater risk that can result in increased installation cost. Drilling operations took several additional days on site due to hard ground, including rock and/or concrete fill encountered below Cemetery Creek. Crews also had to recover and repair damaged drilling equipment on two occasions. Similar conditions were also encountered in the Annually Downs neighborhood along 106th Street.
- Alignment changes at Weston Place (\$43,613.17, 6 days). Conflicts with existing utilities required CTRWD purchase an additional easement from Weston Place HOA and shift the force main alignment further north. Installation was also deeper, which forced changes to crossing the gas pipelines as well as a small creek.
- Quantity adjustments for force main installation (\$4,804 deduct). Multiple alignment changes reduced the overall total length of force main installed.
- Quantity adjustments for granular fill, flowable fill, special pipe bedding (\$121,935, 6 days). As discussed during multiple C&C Committee meetings, substantially more granular fill was required over the course of the project due to alignment changes that put the new force main near or underneath path or road pavement. Alignment changes were a result of utility conflicts not anticipated in design, and crews had to utilize remaining available space in right of way or easements for force main installation.
- Quantity adjustments for road, curb, path, sidewalk and driveway replacement (\$19,870). Again, changes in quantities were required over the course of the project due to alignment changes that put the new force main near or underneath sidewalks, paths, roads, etc., and those surfaces had to be replaced.
- Motor operated valve upgrades (\$7,147.06). This change includes safety upgrades required when installing electrical equipment in a potentially hazardous location - in this case the underground valve vault west of Ditch Road. The equipment was installed in the underground vault rather than above ground to eliminate the need for a security fence.

- Additional Air Release Valve structure (\$14,615.33, 4 days). A new manhole was installed near the valve vault west of Ditch Road to accommodate air release valves (ARVs) on the existing dual force mains, replacing an existing structure. ARVs are typically installed at high points in force mains to release air and eliminate air lock that would otherwise restrict flow. When crews exposed the existing force mains staff learned that the actual high point in the north force main was further west. This change was required because crews had to dig up more of the existing force main, located along a paved path, and install an additional structure.
- Valve vault tie in (\$14,373.81, 5 days). Additional work was required to expose the existing forcemains in preparation for tie in, adjust valves, and complete connections to the existing forcemains.
- Liquidated damages (\$50,000 deduct, 50 days). Substantial completion was due on 9/15/2017. The force main and valve vault were in service and substantially complete on 12/5/2017.

This is the first change order for the subject project. Staff anticipates it to be the final change order, unless additional information is brought forward supporting adjustments to claims or quantities.

Many changes were a result of utility conflicts identified in the field during construction. While these changes were frustrating for everyone involved, they are a usually part of pipeline installation projects. Utility coordination was performed as a part of the design process, however some of the information provided was either incomplete, inaccurate, or those utilities made changes before construction began on our project.

Contractor bids included unit pricing with estimated quantities on many line items to account for unknown underground conditions and likely changes that have to be made in the field. When conflicts arose, staff worked with the contractor and design engineer to pick the next best alternative to install the force main. Staff does not believe CTRWD can recover additional costs from others because these costs would have been incurred anyways. Had all the conflicts been known before construction began, the design would have already incorporated those previously mentioned next best alternatives.

Recommended Action: Approve Change Order 1 for the 106th Street Parallel Force Main project construction contract with Reynolds Construction, LLC, increasing the contract price by \$215,890.37 and increasing the contract time by 81 days.