ANCHORAGE WATER AND WASTEWATER UTILITY B5 AND B6 TRUNK SEWER UPGRADE, PHASE 2 PROJECT DESCRIPTION

Facility Description:

The B5 and B6 Trunk Sewers were constructed in the 1950's, with the B6 Trunk Sewer predating the B5 Trunk Sewer. The B5 Sewer Trunk includes 55 concrete and brick man-holes and 17,303 feet of 18 to 42-inch asbestos concrete, ductile iron, corrugated metal, and concrete pipe. The B6 Sewer Trunk includes 26 concrete and brick manholes and 7,060 feet of 15 to 24-inch concrete pipe.

The manhole numbering system assigns manhole numbers from MH1, at the upstream end of the B5 Sewer Trunk, to MH55 at the downstream end, near Pump Station 2. On the B6 Sewer Trunk, the manholes are numbered from MHA1, at the upstream end, to MHA25, near the junction of the two trunk sewers. The B5 sewer trunk extends from Pump Station No. 2, across Westchester lagoon, Minnesota Drive, and Westchester Lake, east on 19th Avenue to just east of Lake Otis Parkway. The B6 sewer trunk extends from MH54, southeast on Scenic Way, across Minnesota Drive and Westchester Lake, east on 17th Avenue to C Street. Sewage collected by the B5 and B6 sewer trunks drain to Pump Station No. 2, where it is pumped via the Chester Creek Force Main to the West Interceptor. See Figure 1.

Recommended Upgrades:

In 2001, AWWU completed the *B5* and *B6* Sewer Trunk Condition Assessment Report (CRW/2001) and the *B5* and *B6* Sewer Trunk Pre-Design Report (CRW/2001). These reports concluded that the rehabilitation should be completed in a phased approach; with the highest priority project completed first. Following are a few of the recommended rehabilitation project phase descriptions:

B5 and B6 Trunk Sewer Upgrade Phase 1. Construction of the proposed improvements were completed in 2002, and included:

- 1. Replaced deficient segments of the B6 Trunk Sewer between MHA22 to MHA23 and MHA24 to MHA25. The existing concrete pipe was collapsing and needed to be replaced.
- 2. Installed a cured-in-place liner on the B5 Trunk Sewer between MH54 and MH55, including the drop connection at MH55. The existing corrugated metal pipe was corroding and was failing beneath the railroad embankment.
- 3. Rehabilitated MH55. The existing manhole was deteriorating from sulfuric acid gases. The man-hole and was lined with an epoxy resin.
- 4. Removed a dustpan stuck in the pipe down-stream of MHA12.

B5 and B6 Trunk Sewer Upgrade Phase 2. The Phases 2 improvements will be designed in 2007 and constructed in 2008, and will include:

- Upgrade the B5 Trunk Sewer between MH1 to MH14 to increase capacity. The existing 18-inch asbestos concrete pipe is flowing near capacity during average flow events. Previous studies recommend bursting the existing pipe and inserting a 24-inch HDPE pipe.
- Upgrade the B6 Trunk Sewer between MHA14 to MHA17 to correct structural deficiencies. The existing 24-inch concrete pipe is deformed and is beginning to collapse. The pipe needs to be replaced using trenchless rehabilitation methods or traditional open-cut method.

Project Description December 11, 2006 On October 27, 2006 Anchorage Water and Wastewater Utility (AWWU) issued a notice-to-proceed to CRW Engineering Group, LLC (CRW) to provide design services for the Phase 2 Improvements. To date CRW has started the site investigation services including delineating wetlands, geotechnical exploration, and the land surveying. It is anticipated that the site investigation services will be completed January 2007. Design of the proposed improvements will follow.



FIGURE 1
Project Site Map
B5 and B6 Trunk Sewer Upgrades