



## City Council Report

**Date:** March 23, 2009  
**To:** City Council  
**Through:** Jack Friedline, Deputy City Manager  
**From:** Elizabeth Huning, City Engineer  
**Subject:** 08/09 Wastewater Manhole Rehabilitation  
City of Mesa Project No. 01-476-007  
Council Districts No. 1, 3, 4, 5, and 6

### Purpose and Recommendation

The purpose of this report is to provide information to the Council on the results of the bids received for Project No. 01-476-007, Wastewater Manhole Rehabilitation (See Exhibit "A" for project locations).

It is recommended that the Council award this project to the low bidder, JPCI Services, for a total award of \$384,318.00.

### Background

The City of Mesa maintains approximately 27,000 manholes in its wastewater collection system. The majority of these manholes are constructed of concrete. Due to the corrosive environment of wastewater, concrete can deteriorate over time. This deterioration occurs more rapidly in lines that are larger diameter (15-inch and larger). These larger lines are typically the main collection lines in the system, where wastewater is in the lines longer for conveyance to treatment plants and where more turbulence occurs due to other lines joining the system. Today, new manholes in these size lines are installed with state-of-the-art coating systems that extend their service lives over 20 years. However, the City has older lines that were not installed with the new coatings. The deterioration of the concrete can affect the structural integrity of the manhole and, ultimately, the street above the manhole. City Staff review the known concrete manholes annually and identify manholes that are deteriorated to the point where they must be rehabilitated with repairs and coatings.

Community Impact – Temporary impacts to the area will include traffic restrictions and the possibility of undesirable odor. Once work is started, project completion is anticipated within one hundred fifty and (150) calendar days.

## Discussion

This project will rehabilitate forty-five (45) of the City's most deteriorated manholes. The existing concrete is cleaned, and any structurally deficient concrete is removed. New concrete is then bonded to the existing concrete, restoring the manhole to its original thickness. Other areas of the manhole that are in need of repair are also rehabilitated (bench, adjusting rings, frame and cover, etc.). The manhole is then coated with a corrosion resistant epoxy coating, which protects the manhole from the corrosive action of wastewater.

## Alternatives

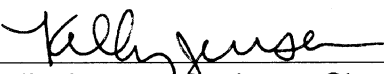
An alternative would be to not proceed with this project at this time. This is not recommended, since it is more cost-effective to perform preventative maintenance than to let the manhole structure deteriorate to the point where it must be completely replaced.

## Fiscal Impact

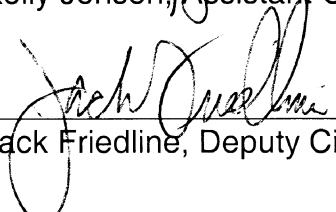
The recommended total award of this project is \$384,318.00, which consists of a low bid of \$349,380.00 plus an additional \$34,938.00 (10% allowance for change orders). This project is funded from the Approved FY 08/09 Wastewater Capital Bond Program.

## Coordinated With

The Water Resources Department concurs with this recommendation.

  
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Kelly Jensen, Assistant City Engineer

  
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Elizabeth Huning, City Engineer

  
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Jack Friedline, Deputy City Manager

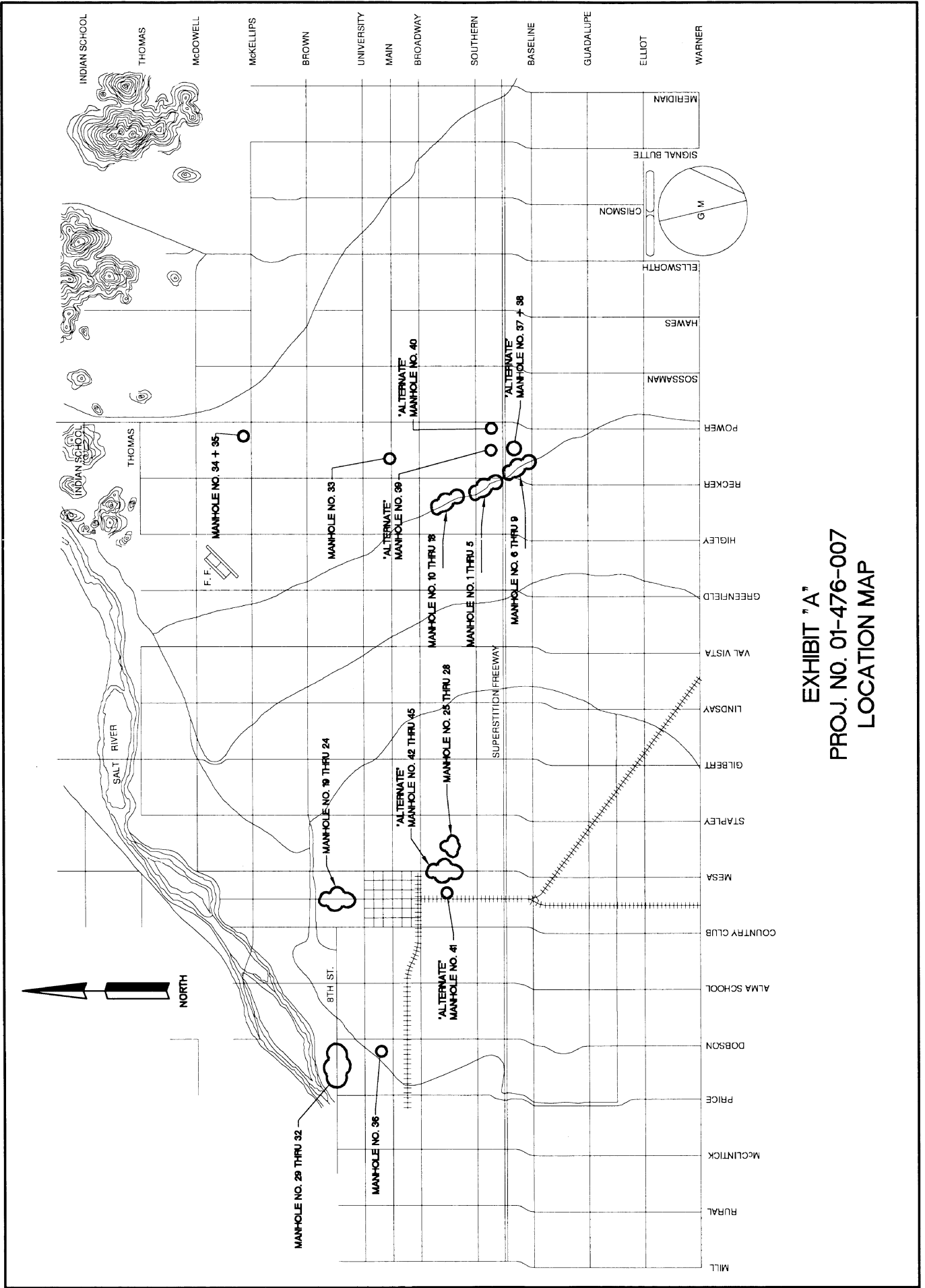


EXHIBIT "A"  
 PROJ. NO. 01-476-007  
 LOCATION MAP

Budget Information:  
FY 08/09 Wastewater Capital Bond Program

CITY OF MESA  
MESA, ARIZONA

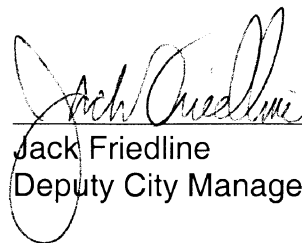
08/09 WASTEWATER MANHOLE REHABILITATION

**PROJECT NO. 01-476-007**

Tabulation of Bids Received, Thursday, February 19, 2009, at 2:00 P.M.

<b>ENGINEER'S ESTIMATE</b>	<b>\$573,200.00</b>
1. JPCI Services	\$349,380.00
2. Quest Civil Constructors Inc.	\$388,388.00
3. Cactus Coyote Contracting LLC	\$416,443.89
4. Sahuaro Pipeline Corp	\$494,346.00
5. CAL Wadsworth Construction Southwest Inc.	\$534,494.14

Recommend award to low bidder, JPCI Services, in the amount of \$349,380.00 plus an additional \$34,938.00 (10% allowance for change orders) for a total award of \$384,318.00.

  
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Jack Friedline  
Deputy City Manager