

# Memorandum



**Date:** July 12, 2014

**To:** Gary T. Hartfield, Division Director  
Internal Services Department  
Small Business Development Division

**From:** William Diaz  
Contract Compliance Specialist II  
Miami Dade Water & Sewer

**Subject:** ONE-YEAR COUNTYWIDE CONTRACT FOR REHABILITATION OF  
MANHOLES INFLOW AND INFILTRATION, RPQ P0191

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The Project consists of furnishing all labor, material and equipment for rehabilitation of approximately 500 manholes anywhere within the limits of Miami-Dade County, Florida, as ordered by the Department during a one year period. The work of the manhole rehabilitation shall include, but not be limited to, furnishing and installing concrete protective coating; high pressure cleaning; surface preparation; sealing leaks with chemical injection grout by drilling thru the manhole; sand blasting, if required; concrete repair and restoration; restoring manhole to the original shape or as otherwise approved by the Engineer; grouting voids; cleaning and restoring exposed reinforcing; applying cement underlayment; restoring manhole bench and flow channels; furnishing and installing plugs, thru plugs and thru pipe as required; bypass pumping of sewage, if necessary; traffic control; legal disposal of debris; furnishing and utilizing all required safety equipment; post-rehabilitation video inspection; and all other miscellaneous and appurtenant work for a complete manhole rehabilitation.

Construction Trades: Underground utility and Excavation, Pipelines Engineering Contractor, General Engineering.

CSBE Goal – 0% (No Availability) No Goal.  
Community Workforce Program is not applicable to this project.

If you require any additional information, please contact:

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Cc: Leo Vargas.

DEPARTMENTAL INPUT  
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION

To: Gary T. Hartfield, Division Director Internal Services Department  
Small Business Development Division

From: Leo Vargas, OCI Supervisor  
Procurement Section.

Department: Miami-Dade Water and Sewer Department

Contract Title: One Year County Wide Contract for Rehabilitation of Manholes Inflow and Infiltration, RPQ P0191

Contract No.: MCC-7360 Program

Estimate Amount: \$ [\$785,350.00 Construction + \$78,535.00 (10%) Contingency]

Account Funds: WASD Funds.

<b>RECOMMENDATION</b>
<b>CSBE Goal – 0% (No Availability) No Goal.</b>

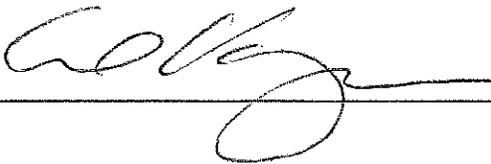
Analysis for Recommendation

Item	Description	Estimated Cost	% of Item to Base Bid	CSBE Availability
1.	For rehabilitation of deteriorated manholes where the structure is repaired to greater than 2.0-inches in depth, to include cleaning, surface preparation, concrete restoration and installing concrete protective coating (no steel replacement), the price per square foot of	\$145,600.00	16.85%	
2.	For rehabilitation of deteriorated manholes where the structure is repaired to greater than 2.0-inches in depth, to include repairing corroded steel within manholes at locations determined by the Engineer, cleaning, surface preparation, concrete restoration and installing concrete protective coating, the price per square foot of	\$14,500.00	1.68%	
3	For the rehabilitation of deteriorated manholes where the structure is repaired in the range of 0.51-inch to 2.0-inches in depth, to include cleaning, surface preparation, concrete restoration and installing concrete protective coating, the price per square foot of	\$280,000.00	32.41%	
4	For the rehabilitation of deteriorated manholes identified as minimally corroded, where the structure is repaired less than 0.50-inches in depth), cleaning, surface preparation, concrete patching and installing concrete protective coating, the price per square foot of	\$96,000.00	11.11%	

5	For cost of sealing leaks by drilling through the manhole structure and filling the underground void with a chemical injection grout, the price per each manhole of	\$25,000.00	2.89%	
6	For rehabilitation of manholes base, bench including the surface preparation and coating, the price per square foot of	\$42,000.00	4.86%	
7	For repairing manholes base, bench with the rebuilding of channels to include surface preparation, removal and legal disposal of debris, forming new channel and coating, the price per square foot of	\$45,000.00	5.21%	
8	Supplemental costs for performing rehabilitation work on manholes with exposed brick, the supplemental price per exposed brick manhole of	\$13,000.00	1.50%	
9	For supplemental cost in manhole repairs in residential backyard easements to include all additional costs for logistics, accessibility and other required work, the price per lot (paid only once independent of quantity of crew or duration)	\$4,000.00	0.46%	
10	Supplemental costs for performing rehabilitation work on access manholes above sewage interceptors (24-inches or larger mains),	\$51,000.00	5.90%	
11	For a post-cleaning and post-rehabilitation video inspection of manholes.	\$25,000.00	2.89%	
12	Supplemental cost for removal and legal disposal of existing lining materials from manholes.	\$23,250.00	2.69%	
13	Furnish Traffic Control for the project, complete, the aggregate sum of	\$8,000.00	0.93%	

14	For bypass pumping of sewage manholes with gravity systems of 8-inches and larger, the price per manhole bypass of	\$5,000.000	0.58%	
15	For repair of an existing manhole with a fiberglass insert (the cone shall be removed and reinstalled by Department forces), the price per vertical foot of	\$8,000.000	0.93%	
	Sub Total	\$785,350.00		
	Contingency	\$78,535.00	10%	
	TOTAL	\$863,885.00	100%	

Department Head or Authorized Agent.




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**Project Description:** The Project consists of furnishing all labor, material and equipment for rehabilitation of approximately 500 manholes anywhere within the limits of Miami-Dade County, Florida, as ordered by the Department during a one year period. The work of the manhole rehabilitation shall include, but not be limited to, furnishing and installing concrete protective coating; high pressure cleaning; surface preparation; sealing leaks with chemical injection grout by drilling thru the manhole; sand blasting, if required; concrete repair and restoration; restoring manhole to the original shape or as otherwise approved by the Engineer; grouting voids; cleaning and restoring exposed reinforcing; applying cement underlayment; restoring manhole bench and flow channels; furnishing and installing plugs, thru plugs and thru pipe as required; bypass pumping of sewage, if necessary; traffic control; legal disposal of debris; furnishing and utilizing all required safety equipment; post-rehabilitation video inspection; and all other miscellaneous and appurtenant work for a complete manhole rehabilitation.

**Construction Trades:** Underground Utility and Excavation, Pipelines Engineering, General Engineering

**Justification:**

This project cannot be bid as a CSBE set aside. The previous projects for manhole rehab (RPQ P0080, RPQ P0132 and RPQ P0154) were bid under 7360 due to the following reasons.

1. Approved products used for manhole rehabilitation are required to be from a Pre-Approved List.
2. Specialty equipment is required to perform the work in the volume needed. Applicators that perform this work have specialized trucks that automated equipment to clean and coat the manholes. If the work is done by hand with a portable pressure washer and trowel it would not be feasible for the Department. The manhole could not be surcharged for that long and the Department would have to provide labor on overtime to handle the flows and inspection. Having a Contractor with automated equipment is essential to keeping costs low and production high.
3. The coating manufacturers require applicators to be certified in the use of their products. They will not certify a contractor if the Contractor is not experienced with coating rehabilitation and completes their training. This is because for all rehabilitation work, the success of the application is determined by the surface preparation and ability of the applicator. The manufacturer will not warranty their product if they are not confident with the applicator.
4. Some of the specialty manhole coating manufacturers have regional license agreements with applicators. The licensed regional applicators for that specialty product maybe from outside Miami-Dade or Broward County.
5. Coating manufacturers have invested time and money into providing the WASD a demonstration manhole as a test for their product. One manhole was rehabilitated free of charge with the understanding that they would be allowed to bid for the manhole rehab work. If we don't allow the certified trained applicators to bid the rehab problem, there may be an issue.
6. Project RPQ P0132 was not successful. The Contractor had great difficulty stopping groundwater from entering the manhole. The Department will be increasing the experience requirement to 500 manholes completed prior to the bid date. CSBE's may not have this experience. RPQ P0080 and 154 were successful. The Contractor was specialist that only does manhole rehab work. That seems to be the best route to take and there are a number of companies that specialize in this work.