



Ironhouse Sanitary District BOARD OF DIRECTORS STAFF REPORT

DATE: April 16, 2019

TO: Members of the Board of Directors

FROM: Louis Solana, Collections Superintendent

SUBJECT: AUTHORIZE THE GENERAL MANAGER TO ENTER INTO A CONTRACT WITH H&R PLUMBING FOR REHABILITATION OF EIGHT (8) MANHOLES USING MAINSTAY COMPOSITE LINER AT A COST NOT TO EXCEED \$75,198.50

STATEMENT OF ISSUE:

The District has aging manholes throughout the collection system that are exposed to different environments, the worst being hydrogen Sulfide (H₂S). Eight (8) manhole sections require rehabilitation due to the corrosive nature of H₂S. Manhole rehabilitation is a best practice in the industry, ISD has been doing this for the past 10 years. Below are pictures of a previous project that was completed last year.



Before: MH WM002



After: MH WM002

STAFF'S RECOMMENDATION TO THE BOARD:

AUTHORIZE the General Manager to enter into a contract with H&R Plumbing for rehabilitation of eight (8) manholes using Mainstay Composite Liner at a cost not to exceed \$75,198.50.

The Mainstay Composite Liner is a two-component manhole rehabilitation system consisting of a high strength restoration mortar and an epoxy corrosion barrier coating that cures simultaneously to repair and protect brick and concrete manholes and other sanitary sewer structures.

Staff Report

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The mortar is first shot onto a new or deteriorated manhole surface and an epoxy topcoat is then immediately applied while the mortar is still soft. This cures into a strong, highly corrosion resistant, and continuous surface, free of pinholes, and voids.

H&R Plumbing is the only licensed contractor that is certified to apply the Mainstay product in California.

COST OR FINANCIAL IMPACTS:

Through unrestricted Capital Expenditure Reserves and Net Cash, the District has adequate funds for this Capital Improvement Project.

SCHEDULE FOR COMPLETION:

If approved, this Board action will authorize staff to proceed with this project. It is anticipated that the work would begin in the early part of July, and will be completed within three (3) weeks of the start date.

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DISCUSSION:

Collection staff perform manhole inspections based on National Association of Sewer Service Companies (NASSCO), Manhole Assessment and Certification Program (MACP). Manhole inspections are completed on an annual basis. Staff's goal is to inspect 1/5 of our manholes per year and is currently on track with this goal.

Staff evaluates manholes and prioritizes them according to their deficiencies. Staff inspects manholes for different signs of failure, exposed rebar, exposed aggregate, lifted epoxy with exposed concrete. Manholes requiring rehabilitation pose a risk of a partial/total collapse of the structure if left untreated.



Failed Epoxy: Leaving concrete exposed



Exposed Rebar: Multiple sections