EMERGENCY PURCHASES

Department: Public Works  Division: Wastewater

Requestor: Greg Smith

Amount of purchase: $62,450.00

Justification and reason for emergency purchase: Replacement of eight (8) sanitary sewer manholes which are in imminent danger of collapse. Chemical attack from hydrogen sulfide and sulfuric acid has deteriorated these concrete structures. The full extent and severity of the condition of these manholes was not believed to pose an imminent danger. Due to the poor condition of the existing manholes recent vehicular traffic by farming/landowner and SRP company vehicles has caused failures of the manholes.

Description and purpose of items purchased: Provides for a local Contractor to furnish and install eight (8) complete manhole assemblies. Work includes: installation of short sections of piping, provisions for bypass pumping and traffic control, and asphalt repair as needed.

Purchase Order/Contract/Agreement number (if applicable): 14-49299

Describe method of solicitation and basis for vendor selection: Contractor has been vetted through the public-works on call services program, and pricing negotiated by staff based on services to be provided. Upon approval the work specified will begin immediately and should be completed within seven (7) days. As an interim measure steel plates and traffic barricades have been put in place to mitigate hazards.

Finance Director Approval

City Manager Approval

Please attach any related documentation or accounting data to this form.
MEMORANDUM

TO: Kevin Louis, Public Works Director  
    Greg Smith, PE/PS Deputy Public Works Director

FROM: Terrence S. McKeon, PE

RE: Deteriorated Manholes along Railroad Alignment

DATE: January 21, 2014

Recently it was discovered that manholes on the 18" PVC sewer line which runs parallel to the UPRR west of Thornton are very badly deteriorated and have suffered almost total structural failure. The current condition of these manholes leaves them subject to immediate and imminent danger of collapse and also poses the threat of plugging the existing sewerline completely by falling debris. This existing sewer line and manholes are approximately six (6) feet in depth.

It had been noted previously that these manholes were in poor condition, and it was planned to address these under the annual rehabilitation program. Recent activity by SRP in constructing their new overhead high-voltage transmission lines appears to have placed excessive loading on these manholes, thereby causing unanticipated structural failure of these manholes.

This pipeline is believed to have been constructed in 1985. The concrete of the existing manholes and bases has suffered severe damage from Sulfuric Acid (H₂SO₄) as a result of high levels of Hydrogen Sulfide (H₂S) throughout the 28± year life of the pipeline.

Proposed corrective action for this pipeline consists of constructing a new concrete manhole downstream of each of the eight (8) existing manholes followed by removal of the existing manhole, and installation of pipe in its place. This work will require by-pass pumping to facilitate installation of pipe through locations of existing manholes to be removed. Additional work will be required for asphalt replacement at the downstream manhole located within Cottonwood Boulevard.

It has been discovered that an existing 12" sewer line, abandoned at the time the 18" was completed, parallel to the 18" has also suffered collapse in several locations along this stretch. The existing line was abandoned in place, and not filled with grout or other material. At this time it is proposed to remove the damaged sections and backfill, as this line is approximately 24" in depth.

Preliminary estimating projects approximately $75,000.00 in costs for the work required. SoCal Excavating, a local underground contractor capable of performing this work, has assisted City Staff in investigating this issue and will provide a detailed cost proposal for performing this work.
SO-CAL EXCAVATING, LLC
3009 N. ROCKWELL AVE #5
CASA GRANDE, AZ 85122
PHONE (480) 204-7195 / Fax (520) 836-3371

DATE: 01/23/14

CUSTOMER: ESTIMATING DEPARTMENT
DANIELS ALLEN / TERRY MCKEON

PROJECT: CITY CASA GRANDE
WASTE WATER DIVISION
CASA GRANDE, AZ 85122

SO CAL EXCAVATING PROPOSES THE FOLLOWING SCOPE OF WORK FOR THE SUM INDICATED.

THIS PROPOSAL BASED ON PLANS AND SPECIFICATIONS: MAN HOLE BYPASS/REPLACEMENT

PROVISIONS:

COTTONWOOD & THORTON RD. WEST ALONG RAIL RD. TRACKS
8 MAN HOLES REMOVE AND REPLACE WITH 48" MAN HOLES
4 BYPASS SET UPS FOR FOR MAN HOLE REMOVALS

* PLACEMENT OF 7 NEW 48" MAN HOLES W/30" FRAME COVER PER MAG 420
PLACE 1 CONTROL VAULT W/MANHOLE, 30" FRAME COVER PER MAG 429
4 BYPASS SET UPS FOR 18" MAIN AND REMOVAL OF 7 EXISTING MAN HOLES
REMOVE AND HALL OFF ALL DEBRIS FROM MAN HOLES
TRAFFIC CONTROL ON COTTONWOOD FOR 1 CONTROL VAULT MAN HOLE
ALL BACKFILL AND COMPACTION TO 95%
BACKFILL STREET WITH 1/2 SACK ABF SLURRY
CONCRETE COLLARS AND ADJUSTMENTS PER MAG 422-423
PATCH PAVING ON COTTONWOOD AROUND CONTROL VAULT

$ 62,450.00

* 1 MOBILIZATION

THANK YOU,
KEVIN OLIVE

ALL TRENCHING IS BASED ON TYPICAL EXCAVATION USING A 420D CAT BACKHOE UNLESS NOTED OTHERWISE.

EXCLUSIONS: ALL ITEMS CHECKED ARE SPECIFICALLY EXCLUDED FROM THIS PROPOSAL.

X HARD ROCK
X SHORING
X PERMITS
X ENGAGEMENT
X BONDS
X ANY IMPORT/ABC
X HAZARDOUS WASTE
X HARD SCAPE

TRAFFIC CONTROL
TRENCH PLATES
SAW CUT / BORING
MILLING
CONSTRUCTION WATER
A/C OR CONCRETE WORK
VIDEO INSPECTIONS
UTILITIES NOT MARKED

ENGINEERING
CONSTRUCTION FENCING
SPOIL REMOVAL
PUMP TRUCK
DUST CONTROL
DEMO
LANDSCAPE
DE-WATERING

THIS PROPOSAL IS GOOD FOR 30 DAYS. ANY ADDITIONAL WORK IS ON A TIME AND MATERIAL + 20%.