



Chandler - Arizona  
Where Values Make The Difference

**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CA08-264**

**1. Agenda Item Number:**

42

**2. Council Meeting Date:**

May 22, 2008

**TO: MAYOR & COUNCIL**

**3. Date Prepared:** May 1, 2008

**THROUGH: CITY MANAGER**

**4. Requesting Department:** Municipal Utilities

**5. SUBJECT** Approve Contract Amendment No. 1 to Carollo Engineers for the Sewer Assessment Study - Phase 3, Project No. WW0808-101, in an amount not to exceed \$393,056.

**6. RECOMMENDATION:** Staff recommends that Council approve Contract Amendment No. 1 to Carollo Engineers for the Sewer Assessment Study - Phase 3, Project No. WW0808-101, in an amount not to exceed \$393,056.

**7. BACKGROUND/DISCUSSION:** The Wastewater Master Plan completed in 2004 identified an on-going need to evaluate, prioritize, and repair sewer lines and manholes within the City's collection system. As a result of this recommendation, a Sewer Evaluation Study was conducted in November 2005, which resulted in a multi-year sewer management program to inspect and rehabilitate the City's 16,200 sewer collection system manholes and 826 miles of sewer pipe.

This amendment will allow for inspection services to examine the structural condition of an additional 800 sewer collection system manholes at various locations throughout the City of Chandler. The inspection results will be used to prioritize a program of rehabilitation, repair, and replacement of sewer manholes to prevent structural failures. Inspections are accomplished utilizing the manned entry inspection criteria established by the City's Wastewater Collections Division.

**8. EVALUATION PROCESS:** The consultant selection process was conducted in accordance with established City policies and procedures. Staff has reviewed the scope of work, billing rates, and total fee for this project, compared them to historical costs, and has determined they are acceptable.

**9. FINANCIAL IMPLICATIONS:**

Cost: \$393,056  
Savings: None  
Long Term Costs: None  
Fund Source:

Acct. No.:	Fund Name:	Program Name:	CIP Funded:	Amount:
615.3900.0000.5219	Wastewater Operating	Other Professional Contract/Svcs	Non CIP	\$393,056

**10. PROPOSED MOTION:** Move that Council approve Contract Amendment No. 1 to Carollo Engineers for the Sewer Assessment Study - Phase 3, Project No. WW0808-101, in an amount not to exceed \$393,056, and authorize the Mayor to sign the contract documents.

**ATTACHMENTS:** Contract Amendment

**APPROVALS**

**11. Requesting Department**

Robert Mulvey, Assistant Municipal Utilities Director

**13. Department Head**

Dave Siegel, Municipal Utilities Director

**12. City Engineer**

Sheina Hughes, Assistant Public Works Director/City Engineer

**14. City Manager**

W. Mark Pentz



Chandler Arizona

AMENDMENT NUMBER 1

Project Name: Sewer Assessment Study – Phase 3
Project No.: WW0808-101

This Amendment No. 1 to that certain Agreement Between the City Of Chandler (CITY) and Carollo Engineers, a corporation licensed to do business in the state of Arizona, for Sewer Assessment Study – Phase 3 dated 30, November, 2007 is entered into this 5th day of MAY, 2008.

WHEREAS the parties have determined that it is necessary and desirable for ANNUAL CONSULTANT to perform additional services for CITY;

NOW THEREFORE, the parties agree as follows:

- 1. Section 1, of the above referenced Agreement, is hereby; amended by adding additional scope of work described in more detail in Exhibit A attached hereto and incorporated herein by reference.
2. Section 2, of the above referenced Agreement, is hereby; amended by increasing the total contract price by an amount not to exceed the sum of Three Hundred Ninety Three Thousand Fifty Six dollars dollars, (\$393,056) all payable in accordance with Exhibit B, for a total contract price not to exceed the sum of Eight Hundred Fifty Four Thousand Nine Hundred Ninety Seven dollars dollars, (\$854,997).
3. All other terms and conditions of the above referenced Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names this 5th day of MAY, 2008.

CITY OF CHANDLER:

By: \_\_\_\_\_
MAYOR Date

APPROVED AS TO FORM:
\_\_\_\_\_  
City Attorney by:

ATTEST: \_\_\_\_\_  
City Clerk

ANNUAL CONSULTANT:

By: [Signature] 5-5-08
Title: PARTNER DATE

ATTEST: (If corporation)
[Signature] 5-5-08
Title: PARTNER Secretary DATE

WITNESS: (If Individual or Partnership)

SEAL

Amendment No. 1 cont.

Project No. WW0808-101

**THESE CHANGES RESULT IN THE FOLLOWING ADJUSTMENTS OF CONTRACT PRICE AND TIME**

<b>ORIGINAL CONTRACT AMOUNT</b>	<b>\$ 461,941</b>
<b>CURRENT CONTRACT PRICE PRIOR TO THIS AMENDMENT</b> (Including previous amendments)	<b>\$ 461,941</b>
<b>NET INCREASE / DECREASE</b> (Resulting from this amendment)	<b>\$ 393,056</b>
<b>REVISED CONTRACT PRICE</b> (Including this amendment)	<b>\$ 854,997</b>
<b>AMENDMENT PERCENTAGE</b> (Of original contract price)	<b>85%</b>
<b>CONTRACT TIME PRIOR TO THIS AMENDMENT</b> (Including previous amendments)	<b>360</b> (Days or Date)
<b>NET INCREASE/DECREASE</b> (Resulting from this amendment)	<b>0</b> (Days or Date)
<b>REVISED CONTRACT TIME</b> (Including this amendment)	<b>360</b> (Days or Date)
THIS AMENDMENT No. _____	Does not Require Council Approval: Less than \$30,000* _____
	More than \$30,000 but less than 10% of Contract* _____
THIS AMENDMENT No. <u>1</u>	Requires Council Approval Greater than \$30,000* <u>X</u>
	Greater than 10% of Contract * <u>X</u>
*Including City Manager approved Amendments	
<b>ORIGINAL CONTRACT COUNCIL DATE: 12-13-07 ITEM NO.:33, if applicable</b>	
<b>COUNCIL APPROVAL: _____ ITEM NO: _____, if applicable</b>	

CC: City Clerk    User Dept    Project Mgr    Consultant    Project Anaylst    File

EXHIBIT A  
SCOPE OF WORK

**GENERAL**

This Scope of Services describes Engineering Services to be provided by Annual Consultant for the City of Chandler (City). The engineering services to be provided under this Scope of Services shall include additional services related to the Sewer Assessment Study - Phase 3. The work to be performed for the project consists of the following five types of services:

- Project Management Services
- Develop Inspection Priority
- Sewer System Inspections
- Sewer System Evaluation
- Deliverables

**PROJECT ASSUMPTIONS**

The following assumptions are considered inclusive to this Scope of Services:

1. The City of Chandler will provide the record drawings for the various sewer pipelines and manholes to be inspected.
2. No permit costs, if any are required, are included in this Proposal.
3. No field surveying is included in this Proposal.

**SCOPE OF SERVICES**

<b>TASK 1. PROJECT MANAGEMENT SERVICES</b>
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<b>1.1 Project Management</b>
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Annual Consultant shall provide project management services related to this Amendment (as previously determined for Phase 3). The effort associated with this Task includes directing the activities of the project team members, regularly monitoring the progress of the work and the budget, preparing progress and activity reports, communicating with the City staff on technical issues and problems encountered, schedule updates, monitoring and updating the project schedule, and other management activities.

<b>1.2 Project Progress Meetings</b>
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Annual Consultant shall attend up to eight (8) additional project progress meetings.

**TASK 2. DEVELOP INSPECTION PRIORITY**

**2.1 Develop Inspection Priority - Phase 1 and 2 Manholes**

The City has established the criteria that all manholes inspections will be conducted using Manned Entry protocol, and all of the Phase 3 manholes are being inspected in this manner. However, the Phase 1 and 2 manholes were inspected using the non-entry protocol. Work under this amendment will provide for approximately 600 manholes to be inspected using Manned Entry protocol. The priority of manholes to be inspected will be selected beginning with the Phase 1 and 2 manholes, and based on further discussions with City staff.

**TASK 3. Sewer System Inspections**

**3.1 Develop Additional GIS Maps for Field Inspections**

Annual Consultant shall develop additional GIS-based maps to show the manhole/pipe configuration and intersection details for each proposed inspection under this Amendment. These maps will be used by our subcontractors to develop their site-specific inspection plans and for traffic control plans. Annual Consultant shall provide coordination for the inspection program, making arrangements for meetings as necessary.

**3.2 Conduct CCTV Manhole Inspections**

The manhole inspection program will consist of the physical inspection of the manhole. Current technology will be used to conduct manhole inspections using manned entry and video recording.

A Manhole Inspection Form will be completed for each inspected manhole. This information will then be entered into the project database.

Field analyses for H<sub>2</sub>S of the wastewater will be conducted as part of this effort in conjunction with atmospheric testing of the ambient air in the manholes. This data will be recorded on the Manhole Inspection Form.

The subcontractor will provide all traffic control required to inspect the sewer manholes identified.

**TASK 4. Sewer System Evaluation**

**4.1 Prioritize Rehabilitation or Replacement**

Annual Consultant shall utilize the rating and prioritization approach developed during the previous Sewer Assessment Study - Phase 2. Manholes will be assessed with a score method developed by the Annual Consultant. The manholes will then be organized by action and in descending score of priority.

**4.2 Identify Rehabilitation Projects**

After developing a prioritized list of manholes requiring rehabilitation, Annual Consultant shall group the manholes into projects. This grouping will be based on the estimated construction cost of rehabilitation, and in conjunction with City staff recommendations.

#### 4.3 Prepare Report

The deliverables for Task 5.0 will include completed inspection forms, and a visual record (video tape or digital image) of each manhole inspected.

#### **TASK 5. Deliverables**

##### **5.1 Phase 3 Study Deliverables**

The deliverables for the Sewer Assessment Study - Phase 3 will include both a Draft and Final Report, a total of ten (10) copies for each report version. The findings from the work associated with this Amendment will be included in this report.

The Report will include tables, maps, figures and narrative describing the work performed and the recommendations made. Included in each version of the Report will be the following, as a minimum:

- Summary plan for pipeline and manhole condition rating and prioritization.
- Numerical score for each pipe segment and manhole inspected.
- List of pipe segments and manholes in order of descending score.
- Pipe segment and manhole lists in condition categories.
- Recommendations for future action.

Upon receipt of written comments by the City, Annual Consultant shall finalize and submit the Final Report to the City.

**EXHIBIT B  
FEE SCHEDULE**

<b>DESIGN AND STUDY PHASE TASKS</b>		<b>Categories</b>					<b>Subtotals</b>	
		<b>Senior Professional</b>	<b>Project Professional</b>	<b>Assistant Professional</b>	<b>Senior Technician</b>	<b>Clerical</b>		
<i>Hourly Rates</i>		\$215.00	\$174.00	\$142.00	\$116.00	\$75.00		
<b>Task 1</b>	<b>Project Management</b>							
1.1	Project Management	8	48	36	0	12	104	
	<b>Subtotal Task 1.0</b>	<b>8</b>	<b>48</b>	<b>36</b>	<b>0</b>	<b>12</b>	<b>104</b>	
<b>Task 2</b>	<b>Develop Inspection Priority</b>							
2.1	Develop Inspection Priority	0	8	12	0	0	20	
	<b>Subtotal Task 2.0</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>20</b>	
<b>Task 3</b>	<b>Sewer System Inspections</b>							
3.1	Develop GIS Maps for Field Inspections	0	6	48	56	0	110	
3.2	Conduct CCTV Manhole Inspections	0	12	36	0	0	48	
	<b>Subtotal Task 3.0</b>	<b>0</b>	<b>18</b>	<b>84</b>	<b>56</b>	<b>0</b>	<b>158</b>	
<b>Task 4</b>	<b>Sewer System Evaluation</b>							
4.1	Prioritize Rehabilitation and Replacement	0	18	36	0	0	54	
4.2	Identify Rehabilitation Projects	0	12	36	0	0	48	
4.3	Prepare Report	4	20	32	28	24	108	
	<b>Subtotal Task 4.0</b>	<b>4</b>	<b>50</b>	<b>104</b>	<b>28</b>	<b>24</b>	<b>210</b>	
<b>Task 5</b>	<b>Deliverables</b>							
5.1	Sewer Assessment Study - Phase 3 Deliverables	8	18	48	36	28	138	
	<b>Subtotal Task 5.0</b>	<b>8</b>	<b>18</b>	<b>48</b>	<b>36</b>	<b>28</b>	<b>138</b>	
<b>Total Labor Manhours</b>		<b>20</b>	<b>142</b>	<b>284</b>	<b>120</b>	<b>64</b>	<b>630</b>	
<b>Total Labor Cost</b>		<b>\$4,300</b>	<b>\$24,708</b>	<b>\$40,328</b>	<b>\$13,920</b>	<b>\$4,800</b>	<b>\$88,056</b>	
<b>DIRECT COST ALLOWANCES</b>								
1)	Project Mileage, graphics and reproduction						\$5,000	
2)	AZ Manhole Renewal subcontractor (Approximate)						\$300,000	
<b>NOTES</b>								
							<b>Total Direct Cost Allowances</b>	<b>\$305,000</b>
1)	No H2S investigation is included as part of this proposal.							
<b>TOTAL</b>							<b>\$393,056</b>	