



**CITY OF LODI
COUNCIL COMMUNICATION**

AGENDA TITLE: Adopt Resolution Authorizing City Manager to Execute Change Orders No. 2 Through 7 to Contract with Knife River Construction, of Stockton, for Water Meter Program Phase 3 (\$771,215) and Appropriating Funds (\$764,811)

MEETING DATE: August 21, 2013

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Adopt resolution authorizing City Manager to execute Change Orders No. 2 through 7 to contract with Knife River Construction, of Stockton, for Water Meter Program Phase 3, in the amount of \$771,215, and appropriating funds in the amount of \$764,811.

BACKGROUND INFORMATION: On March 20, 2013, City Council awarded the contract for construction of the Water Meter Program Phase 3 to Knife River Construction in the amount of \$2,898,200. As with the other construction phases of the Water Meter Program, numerous change orders are anticipated, and staff wants to inform the City Council of the status of approved, in-process and anticipated contract changes over the duration of the Phase 3 project.

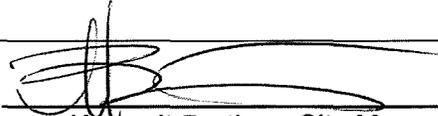
The following information is submitted to the Council for its information and action as noted.

Change Order No. 1: Perform emergency repair of 36-inch and 42-inch storm drain lines in Auto Center Drive and Guild Avenue (\$4,606). Add new service line from meter box to home at 640 Roper Avenue, 641 El Capitan Drive, and 654 Rutledge Drive (\$6,356). Perform additional pot holing on Lake Street and Loma Drive (\$1,740.50). Replace 143 meter box lids at \$40 each (\$5,720). Perform other miscellaneous time and material work from May 9 through May 16 (\$2,167.50). Total change order cost is \$20,590. This change order has been executed.

Change Order No. 2: Perform remainder of water main and water service abandonments from Phase 2 that were eliminated from the Teichert Construction contract to accelerate closure of that contract and acceptance of the project. Total change order cost is \$147,000. This work has not begun.

Change Order No. 3: Replace the existing 14-inch 60-year old asbestos concrete pipe with new plastic water main in Ham Lane between Holly Drive and Lockeford Street. This work was originally scheduled to be performed in Phase 5 of the meter program but is being advanced so the Ham Lane Overlay Project can be completed this year. Total change order cost is \$225,565. This work is completed.

Change Order No. 4: Remove and replace 225 feet of existing 14-inch 67-year old asbestos concrete pipe with new 10-inch plastic water main in Loma Drive between Turner Road and Holly Drive. Total change order cost is \$41,625. This work is completed.

APPROVED: 
Konradt Bartlam, City Manager

Change Order No. 5: Replace the existing 3-inch water main in Westwood Avenue with 1,740 feet of new 6-inch plastic pipe between Holly Drive and Lockeford Street. This replacement was overlooked during the design phase in part because of contradictions in City records regarding the size of the pipeline. This would have been a standard replacement based upon the 3-inch size of the water main. The total cost of the change order is \$158,065. This work is completed.

Change Order No. 6: Work performed under this change order includes the emergency addition of a new water and wastewater services at 401 South Washington Street to resolve the dispute of two property owners formerly using shared services (\$7,450.75). The wastewater lateral construction cost of \$2,583 will be billed to the property owner based upon the City standard service charge schedule. The water service installation will be covered under the Water Meter Program. In addition, cement subgrade treatment was performed on Lakehome Drive between Park Avenue and Laurel Avenue (\$29,833). The contractor performed other miscellaneous time and material work from May 22 through June 22 (\$37,421.88). The total cost of the change order is \$74,705.63. This work is completed.

Change Order No. 7: This change order is for repairing and repaving the entrance road at White Slough Water Pollution Control Facility that was damaged during the construction of the Lodi Energy Center Project (LEC). A payment of \$75,000 will be provided by the LEC project and the remainder of the costs will be paid from wastewater operating funds. The total cost of the change order is \$103,664.30. This work has not begun. Alternatives to approving this change order are to bid this work as a stand-alone project or not perform the work at all. The price per square foot for this overlay project compares favorably to two recent overlay projects. For this work, the price is \$1.87 per square foot; for the recently-completed Mills Avenue overlay project, the price was \$2.09 per square foot; and for the recently-awarded Ham Lane overlay project, the price was \$2.04 per square foot.

The total cost of the above-listed change orders is \$771,214.93 or approximately 27 percent of the original contract value. An appropriation of \$764,811 is requested to cover the costs of these change orders. The storm drain repair will be funded by the storm drain operating fund (\$4,606) and the wastewater service installation (\$2,583) will be funded by the wastewater operating fund.

The Phase Three contract is a unit-price-based contract. We have become aware that, in particular, two items of work (replacement of asphalt concrete pavement and import fill material) will have increased quantities over the contract amount resulting in an estimated \$700,000 increase in the contract value. Appropriation of funds for this extra unit-price-based work will be submitted for approval at the time Council accepts the project.

Prior to the August 7, 2013 City Council meeting, Councilmember Johnson presented a list of questions regarding this Council Communication. Staff responses to the questions were presented to Councilmember Johnson prior to the meeting. The questions and responses are included as Attachment A. During discussion of this Council Communication, Councilmember Katzakian requested that information be provided to the City Council regarding the cost and budget for Phases 1 and 2 of the Water Meter Program. That information is provided below.

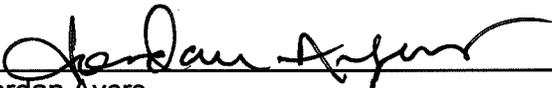
Adopt Resolution Authorizing City Manager to Execute Change Orders No. 2 Through 7 to Contract with Knife River Construction, of Stockton, for Water Meter Program Phase 3 (\$771,215) and Appropriating Funds (\$764,811)
 August 21, 2013
 Page 3

	Budget	Cost
Phase 1	\$4,076,000	\$3,122,764
Phase 2	\$7,043,000	\$6,731,755
Phase 3	\$5,337,000	\$5,298,280 ¹
Subtotal	\$16,456,000	\$15,152,799
Phase 4	\$5,606,000	2014
Phase 5	\$3,987,000	2015
Phase 6	\$5,966,000	2016
Phase 7	\$7,847,000	2017
Total	\$39,862,000	

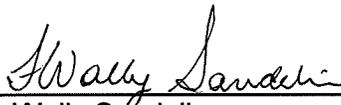
¹ Estimated cost to complete and this includes \$147,000 in work transferred from Phase 2 to Phase 3 (Change Order No. 2 above) and \$225,565 in work transferred from Phase 5 to Phase 3 (Change Order No. 3 above).

FISCAL IMPACT: The improvements will reduce overall annual maintenance costs.

FUNDING AVAILABLE: Requested Appropriation:
 Wastewater Capital (171493) \$29,000
 Water Capital (181466) \$735,811
 Total \$764,811



 Jordan Ayers
 Deputy City Manager/Internal Services Director



 F. Wally Sandelin
 Public Works Director

FWS/pmf
 Attachment

Change Orders

Rail Maint Facility -\$52 mil project – much more complex than water meters – over 90% complete with total change orders at less than 10% versus \$2.8 mil water meter project with change orders totaling 27% of total contract value ????

Background Info – Why are “numerous” change orders “anticipated”? Shouldn’t they be the exception rather than the norm?

Change order 1 – No problem with emergency repair of Auto Center and Guild Ave (\$4606). Remainder is suspect – for example – who didn’t know we had to replace 143 meter box lids? Were they broken? – Who broke them? Additional pot holing and misc time and material? Why wasn’t this anticipated in original contract? Why is this just coming to council? It appears that it already is a done deal!

Change order 2 – Abandonments eliminated from one contract and added to another to accelerate closure of one contract and acceptance of the project. Is this a net cost to the city? Why were we accelerating the contract? How much did we save or lose? Was this \$147000 amount put out to bid?

Change order 3 - Ham Lane water main. Similar question as Change order 2. Work originally scheduled to be done in Phase 5 but accelerated to tie in with the Ham Lane overlay project. That makes sense. But – was this already out to bid in Phase 5? If so, shouldn’t this be an offset? Take from Phase 5 and add to Phase 3? If so what is the net/net? If not, how was this \$225000 contract arrived at?

Change order 4 – remove and replace 225 feet of pipe – seems pretty straight forward. Why change order of \$41000?

Change order 5 – Replace 3” main with 6” main. Replacement “overlooked” due to “contradictions” in city records. Are you saying that the cost is due to upsizing to a 6” line? Are you saying that city records suggest that it already was a 6” main?

Change order 6 – no problem with issue of emergency addition and it’s offset versus property owner etc. Why wasn’t subgrade work anticipated? What were the “miscellaneous” time and materials work done during the month in question? Should this also have been anticipated?

Change order 7 – repair of entrance to White Slough during construction of LED center – Who caused the damage? Payment of \$75000 from LEC and remainder from wastewater operating funds. If LEC caused problem why not have them pay all (\$103000)? What is this doing in a water meter contract anyway?

Phase 3 contract = unit priced – Anticipate increased quantities of asphalt concrete and fill material for \$700000. Not for approval now – why even list at this time? What is unit cost of asphalt and fill? \$90 ton and \$20 yard?

General comment: Change order amounts are commonly in the 10% range or less for Public Works projects. Generally, the changes are refinements to the design reflective of changed field conditions not indicated on the bid plans. The change orders for the Water Meter Program Phase 3 project presented in the Council Communication are, in large part, expansions of the scope of the contract work. Another point to be made is that we are dealing with pipes that were constructed 60 - 75 years ago and our records are not always accurate with respect to size and location. Also, in the past, the change order summaries are provided to the City Council at the time of acceptance. Because we knew the numbers were growing, Rad and I felt it was important to make the Council aware of the anticipated changes so there were no surprises at the end of the project. The cost numbers are still within the planned budget ranges for this phase of the meter program. The bids we received for Phase 3 were substantially lower than estimated. Past practice has been that change orders are not brought to the Council for approval but for information when the cost of the change order can be covered by the project appropriation. I explain further in the order of your comments.

1. These numbers are the exception to the norm because much of the work to be included in the contract is beyond the scope of the original bid.

2. Change Order No. 1 was an emergency repair to our storm drain system that involved 48 inch diameter pipe that our crews could not handle and it was expedient to ask Knife River Construction (KRC) to perform the emergency repairs. We had storm water bubbling up into the street. The pot holing work in the contract was specific to streets and locations where pipe locations and pipe sizes needed to be confirmed based upon the plans. In the case of Lake and Loma Streets the information on the plans was discovered to be incorrect and additional potholing was need to confirm the true pipe sizes and the identify where the pipe size changed in the street. In these cases the City-provided utility information was incorrect. As I mentioned, past practice has been that a change order is not brought to the council if the cost is within the project appropriation. This change order value is within the project appropriation.

3. Teichert Construction completed approximately 12% of the abandonment work for the Phase 2 project. We experienced substantial claims for extra work in the course of that work and City crews were required to provide many hours of support services attempting to locate backyard pipes and their connections to adjacent mains. It became evident the working relationships with staff and the contractor were deteriorating quickly and work was slowing considerably. The City's relationship with Teichert was moving closer to contentious rather than reconciliation. The work appeared it would extend into 2013. This was very different from our experience with the Phase 1 contractor that was by chance KRC. The City did not pay Teichert for \$115,000 of their contract work and avoided the incurrence of substantial extra work charges and commitment of crew time that we simply did not have. As a result, our crews spent much of the next several months locating the pipes and the pipe connections to support the future abandonment of the small diameter backyard mains. The Change Order amount from KRC of \$147,000 is a not to exceed budget amount and the cost will be paid on a time and material basis. We are hoping the net cost to the City will be less with KRC than with Teichert. It is not prudent to bid this work as a separate project because KRC has proven abilities, they are onsite already, there is no mobilization, and limited additional administrative costs.

4. The Meter Program Phase 5 project will be bid in 2015. This work will be eliminated from the Phase 5 project. Again, we are taking advantage of a continuing favorable construction climate. Since we do not have a price for the Phase 5 project I cannot be precise in what the net/net will be. But there is a lot more that just building 1110 feet of 10-inch pipe. We are also installing 30 new services, connecting to the existing main, abandoning the old main, closing two lanes of

traffic during construction, and restriping the street. By comparison the unit price for the 10-inch pipe in Ham Lane is \$75 per foot compared to the contract price of \$72 per foot for other 8-inch pipe in the Phase 3 project.

5. This is a change order because it is an addition to the project. This is a design oversight issue. Whenever we find 60-year old plus asbestos pipe, our first action is to remove it because it has become soft over the years. We were not aware of this pipe's existence. The cost is relatively high per unit foot because the work has to occur around existing utilities and the work is relatively small in scope.

6. You are correct that our City records were incorrect. Our replacement design guideline has been to replace all small diameter water pipe. Our records showed the pipe to be a 6-inch main but a former City employee lives on the street and led us to the information confirming it to be a 3-inch diameter. We are confident this will improve low pressure conditions on this street we had a struggle with before.

7. It is very difficult to discover subbase conditions before removing the asphalt. In fact, a good part of the anticipated \$700,000 increase costs (based upon unit prices applied to quantities) is related to unsuitable soil conditions. When we excavate the trench for the new pipe, the soil is too wet to be used for backfill and we have to dry the soil at the staging area before it can be used for trench back fill. The same condition applied to the subbase material when we ground out the asphalt for repaving. Upon the recommendation of our Geotechnical Consultant, Neil O. Anderson, we attempted a cement treatment of the base to firm it up. It was a mess and our current approach is to put down the first lift of asphalt on the soft material after allowing a few days for the soil to dry. If the asphalt holds up under load, we then apply the final lift. This seems to be working and we have had to excavate very few residual soft areas. The miscellaneous time and material charges are for unforeseen site conditions discovered during the performance of generally the service installations. Examples include leaking fittings, rusted pipe, non-standard lateral pipe materials, etc. These issues are almost always buried and are next to impossible to anticipate in the bid materials.

8. Our conceptual agreement with the LEC project was that they would put down a double lift overlay on the access road to the White Slough office and the LEC site. Upon closer inspection of the road condition, we found localized pavement failures that were pre-existing and not the fault of the LEC project. It is for that reason the wastewater utility is paying for approximately \$29,000 of the cost. This work can be bid as a separate project if the Council prefers. We asked KRC to do the work for expedience purposes. We believe the price to be competitive.

9. As in the past 2 phases of the meter program, we have been fairly aggressive in designating the width of the trench past over the new pipelines. The contractor bid price was based upon a 4-foot wide patch and we are often putting down a 12-foot wide patch. We have decided for future phases of the water meter program to bid the wider trench patch rather than deal with the increased project cost at the end of the project. Again, a not significant part of the \$700,000 anticipated overrun based upon unit prices applied to quantities, is the inclusion of additional suitable soil material for trench backfill.

RESOLUTION NO. 2013-157

A RESOLUTION OF THE LODI CITY COUNCIL
AUTHORIZING THE CITY MANAGER TO EXECUTE CHANGE
ORDERS NO. 2 THROUGH 7 TO CONTRACT WITH KNIFE RIVER
CONSTRUCTION, OF STOCKTON, FOR WATER METER
PROGRAM PHASE 3 AND FURTHER APPROPRIATING FUNDS

=====

WHEREAS, on March 20, 2013, City Council awarded the contract for construction of the Water Meter Program Phase 3 to Knife River Construction in the amount of \$2,898,200; and

WHEREAS, as with the other construction phases of the Water Meter Program, numerous change orders are anticipated over the duration of the Phase 3 project; and

WHEREAS, Change Orders No. 2 through 7 include water main and water service abandonments from Phase 2; replacement of water main in Ham Lane between Holly Drive and Lockeford Street, in Loma Drive between Turner Road and Holly Drive, and in Westwood Avenue between Holly Drive and Lockeford Street; installation of two new water and wastewater services at 401 South Washington Street; cement subgrade treatment on Lakehome Drive between Park Avenue and Laurel Avenue; and repair of the White Slough Water Pollution Control Facility entrance road; and

WHEREAS, the total cost of the above-listed change orders is \$771,214.93 or approximately 27 percent of the original contract value.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute Change Orders No. 2 through 7 to contract with Knife River Construction, of Stockton, California, for Water Meter Program Phase 3, in the amount of \$771,214.93; and

BE IT FURTHER RESOLVED that funds in the amount of \$764,811 be appropriated for the project from the Wastewater Capital and Water Capital accounts.

Dated: August 21, 2013

=====

I hereby certify that Resolution No. 2013-157 was passed and adopted by the City Council of the City of Lodi in a regular meeting held August 21, 2013, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Johnson, Katzakian, Mounce, and Mayor Nakanishi

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None


RANDI JOHL-OLSON
City Clerk