

MEMO

To: Honorable Mayor and City Council

From: Maria D'Andrea, Director of Public Works

Subject: Recommendation to Approve a Change Order with Flatiron Constructors, Inc. for Regional Drainage Improvements associated with the Tower Road Widening Project, Project No. PW-03-2014

Date: July 17, 2017

Item:	Regional Drainage Improvements
Contractor:	Flatiron Constructors, Inc.
Change Order Amount:	\$8,892,937.00

The Tower Road Widening project was designed with retention ponds to capture the runoff from the roadway, and meet the state- & city-required water quality requirements. The ponds are retention, versus detention, because there is no regional drainage system in place to receive or convey the storm water to a stream, such as Third Creek.

The drainage basin in the areas of the Tower Road Widening project, generally north of 96th Avenue, is also referred to as T-88, and drains approximately 1,300 acres to the north-ultimately to Third Creek. Existing box culverts under E-470 and 112th Avenue were designed based on existing conditions and are not sized to accommodate all of the T-88 runoff. The original plan, as proposed by Shea, was to build a system that would maximize the culverts capacity but would require the various property owners to over detain on their individual properties. No specific plan was identified for how to handle roadway runoff. Reunion has already constructed some of the improvements associated with the T-88 Outfall Channel, north of 104th Avenue, in order to accommodate their existing developments. North of 104th Avenue, two retention ponds were constructed and the channel running parallel to E-470 was constructed but not to its full limits.

Therefore, additional work is needed, north of 104th Avenue, to build the channel to its ultimate capacity, build an outlet system to convert the retention ponds to detention ponds as well as convey water from a natural sump, located at roughly 100th Avenue &



MEMO CONTINUED

Tower Road, to the north to an existing box culvert under 104th Avenue. Shea Homes had approached the other property owners in the mid-2000s to gauge interest in participating in the larger, regional solution but the parties were not able to agree on an acceptable cost-sharing approach.

As a part of the Tower Road Widening project discussions, members of the ECAGID/ERAGID requested the inclusion of the drainage improvements in the project. City staff identified a possible alternative to the original Shea design for regional drainage which involves diverting the upper portion of the drainage basin to Second Creek via Gramma Gulch. Staff worked with the Urban Drainage and Flood Control District (UDFCD) and gained concurrence that this approach would be acceptable. Staff has continued to work with the affected property owners for more than a year to refine the design to best accommodate future development.

Improvements will also be needed within Gramma Gulch and at the outlet of Gramma Gulch at Second Creek. The design of these improvements is being developed with UDFCD and will be constructed later this year or early next. The costs for those improvements are included in the overall project budget:

Modified Regional Drainage Cost Estimate	Bid/Estimate
T88 Base System	\$8,892,937
Gramma Gulch & Second Creek improvements	\$400,000
Sub-Total	\$9,292,937
Contingency (5%)	\$444,663
Contingency (LS)	\$100,000
Sub-Total	\$9,737,600
City Contribution (Original \$3.2M + \$2.0M Land Acquisition remainder) (not to be paid back)	(\$5,200,000)



MEMO CONTINUED

City Contribution towards initial financing (to be paid back) (\$2,800,000)

Net	\$1,737,600
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Reimbursements for Previous Expenditures

Final Design Costs (paid by City)	\$200,000
Regional Drainage Improvements (already constructed by Shea)	\$1,478,000

Total - Reimbursement Amount (\$2.8M+Net Costs+Final Design+Shea Improvements)	\$6,215,600
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The City has solicited bids from the City's contractor, Flatirons, several times. Since the total costs exceed the City's reimbursement amount of \$5.2M, the affected property owners must pay for the additional costs. Reimbursement agreements have been developed with each property owner. The estimated reimbursement amounts are:

Owner	Acreage	% of Affected Property	Total Contributory Cost	Less Previous Contributions	Less Initial Contributions	Estimated Reimbursement Amount
Settler's Crossing	175.11	16.26%	\$1,010,400	\$0	\$282,457	\$727,943
Second Creek Farms	27.52	2.55%	\$158,700	\$0	\$44,390	\$114,310
Prime Sites	335.77	31.17%	\$1,937,400	\$0	\$541,606	\$1,395,794
Swink Family Farms	75.16	6.98%	\$433,700	\$0	\$121,235	\$312,465
Reunion	463.67	43.04%	\$2,675,400	\$1,478,000	\$747,912	\$449,488
Total-Affected Property	1,077.23		\$6,215,600		\$1,737,600	\$3,000,000

Schedule:

Flatirons has requested that a Notice to Proceed be issued by July 31, 2017 in order to avoid impacts to the Tower Road Widening Project schedule. Therefore, approval of this change order is subject to receiving the signed reimbursement agreements from each property owner by July 21, 2017. The contractor anticipates starting the work in mid-August and completing all work by the end of December 2017.



MEMO CONTINUED

Another contract will be issued in the fall or winter of 2017 for the work associated with Gramma Gulch and Second Creek, once the plans have been developed with UDFCD. This work does not impact the Tower Road Widening Project schedule.

Financial Impact:

The total adjusted construction budget is as follows. This includes a contingency amount to cover change orders, as authorized by the Director of Public Works or City Manager.

Tower Road Widening – Original Contract Amount	\$28,183,660.98
Contingency Amount (approximately 5% of the bid)	\$1,400,000.00
Current Construction Budget	\$29,583,660.98
 Change Order – Regional Drainage Improvements	 \$8,892,937.00
Contingency	\$444,663.00
Modified Construction Budget	\$38,921,260.98

Funding for this change order will come from 2K Funds and initial payments from the affected property owners. Once the final project costs are determined, a final cost reimbursement will be calculated for each property owner. The agreements are written such that any amount above the City's contribution will be reimbursed by the property owners. At this time, the estimated reimbursement amount is \$6,215,600. Portions of this will be collected from the various property owners up-front (Initial Contribution) and portions will be collected upon platting of their property (Estimated Reimbursement Amount), on a pro-rata basis.

Staff Recommendation:

Staff recommends approval of the change order to the contract with Flatiron Constructors, Inc. in the amount of **\$8,892,937.00** for this work, subject to receipt of signed reimbursement agreements from each property owner and receipt of initial payment of the net amount.

