

Memo



To: Clay Pearson, City Manager

From: Skipper Jones, Assistant Director Engineering and

CC: Trent Epperson, Assistant City Manager
Robert D. Upton, P.E., Director of Engineering
Lindsay Koskiniemi, Project Manager

Date: February 15, 2018

Re: Change to Design of Hughes Ranch Road Widening Project

2/15/2018
To: Mayor and City Council members
Update on Hughes Ranch Road widening design progress, including big \$ savings. Clay

Purpose

This memo provides an update on the design efforts for the Hughes Ranch Road widening project in preparation to bid the project this July. Additionally, it provides information on an upcoming design contract amendment encompassing the addition of a right turn storage lane in front of Challenger Elementary, use of a much more cost effective sound wall design, and additional work needed to coordinate with Texas Department of Transportation.

Background

The Hughes Ranch Road widening project was originally a Brazoria County project and was transferred to the City in 2006. In 2015, Brown and Gay Engineers (BGE) was awarded a contract to update the design to comply with current federal and State standards and add City standard elements, in an effort to accelerate funding allocated through the Transportation Improvement Program (TIP) from 2019 to 2018. Based on these efforts and available funding, in November, 2017, TxDOT and H-GAC agreed to move the project letting forward by one year to 2018.

Current Status

Brown and Gay submitted 90% plans to TxDOT in December, 2017. TxDOT has agreed to fast track internal reviews in an effort to meet an aggressive letting schedule of July this year. However, there are three items remaining to be completed that require an amendment to their design contract.

Right Turn Lane at Challenger Elementary

Staff recognized that the existing right turn storage lane in front of Challenger Elementary had not been incorporated in the original plans. This storage lane is crucial for orderly school traffic flows based on traffic patterns around other elementary schools. **The lane provides additional stacking space for pick-up and drop off traffic outside of through traffic lanes, enhancing school zone safety for both slow moving turning traffic and pedestrian interaction and removes these vehicles from the through lanes.**

In addition to adding the lane to the plan and changes to the profile sheets, this modification will require minor modifications to the landscaping and irrigation plans, the illumination plans, the traffic signal at the intersection of with Bryan Court, the drainage plans and traffic control plans.

Sound wall Substitution

Recently, Staff received approval from TxDOT to replace the extremely expensive standard TxDOT sound wall planned for nearly 12,000 linear feet along the corridor to utilize a wall design similar to that used on Pearland Parkway (along the Shadycrest and Oakbrook subdivisions). This substitution offers a significant savings in both time to construct and ultimate costs to the project during the construction phase. **The TxDOT sound wall was estimated to cost approximately \$6 million and the alternative is estimated at approximately \$2.5 million, a savings of \$3.5 million dollars of which the City is responsible for 20% or \$700,000.** The use of the alternate wall requires changes to the sound wall design including foundations, drainage swales, and slope paving details.

TxDOT Coordination

When the original contract was negotiated with Brown and Gay, TxDOT's plan submittal process included three partial submittals (30%, 60% and 90%) and a final (100%) submittal. TxDOT's submittal requirements changed in 2016 adding a 95% submittal and another comment/response review prior to approval for letting. This has added to the level of effort required to address additional comments on plans and specifications requiring additional coordination with subconsultants and TxDOT reviewers.

Contract Amendment

Staff negotiated an amendment to the engineer's scope of work to modify the plans to include this right turn storage lane, replacement of the sound wall and the additional coordination effort and included all of these items into one contract amendment totaling \$67,950. The original design budget is adequate to accommodate this additional scope without supplement from other funding sources.

Next Steps:

Staff will present the Contract Amendment at the February 26th meeting for Council review and authorization along with a recommendation to approve. Work would begin immediately in an effort to keep the project on track for a letting this summer.

Previous Memos: 04.14.15, 10.19.17, 12.07.17

Budget Info*:

	<i>Budget</i>	<i>Encumbered</i>	<i>Change Orders</i>	<i>Balance</i>
<i>Prelim. Eng.</i>				\$0.00
<i>Land</i>	\$1,585,000.00	\$1,318,727.02		\$266,272.98
<i>Engineering</i>	\$486,000.00	\$285,060.46	\$60,114.82	\$140,824.72
<i>Construction**</i>	\$13,280,000.00	\$17,500.00		\$13,262,500.00
<i>FF&E</i>				\$0.00
<i>Contingency</i>	\$650,000.00			\$650,000.00
Total	\$16,001,000.00	\$1,621,287.48	\$60,114.82	\$14,319,597.70

* Approximately 80% of construction funds will be reimbursed by TxDOT

** Remaining \$19.92M of construction funds are scheduled in FY19

Schedule Info:

	<i>Base Line</i>	<i>Current</i>
<i>Design Start</i>	February-15	February-15
<i>Bid Start</i>	July-18	July-18
<i>Construction Start</i>	October-18	
<i>Construction Completion</i>	June-20	

HUGHES RANCH ROAD (CULLEN TO SMITH RANCH ROAD)

