



COLLIN COUNTY

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Date: May 5, 2017

To: Commissioners Court

From: Clarence Daugherty, P.E., Director of Engineering

Subject: Change Order No. 1 to Contract with Jacobs Engineering (AGR 2015-188) for Engineering Services to perform additional work to the 2014 Mobility Plan Update

Several issues have arisen since the Mobility Plan was updated in 2014 and amended in 2015. When we entered into a contract in 2015 for Jacobs Engineering to perform the Scenario two build-out demographic projections that resulted in the 3.4 M build-out population and the associated modeling, we included a Task 4 that would allow the County to authorize additional work as it came up. We are proposing to exercise that option for several purposes. There are two major issues that need to be dealt with: (1) running the model again with the Outer Loop being a freeway instead of a tollway; and (2) developing a thoroughfare plan in the east side of the County that is sufficient to support the 3.4 million build-out population scenario. But before we "re-run" the Outer Loop, there are some revisions that need to be made to the thoroughfare plan. The following are tasks that we propose be incorporated into the amendment, which will be paid for by the hour:

Task 4.1 – Thoroughfare and Transit Plan Map Revisions

Working with various cities and with TxDOT, we have discovered that there are changes to some of the thoroughfare alignments that need to be made. This task is estimated to cost \$8,900 and take approximately two weeks.

Task 4.2 – Outer Loop Additional Travel Demand Model Runs

Following the changes made in Task 4.1 the Outer Loop will be changed in the network to be a freeway instead of a tollway. Then the model will be run three times: one for the 2035 demographics; one for the 2.1 M build-out scenario; and one for the 3.4 M build-out scenario. The deliverables will be:

1. Two traffic volume maps for each run; one showing the service roads and one showing the main lanes
2. A chart showing the volumes for each segment of the Outer Loop (each segment in which there is a change in volume)
3. Level of Service maps for each run
4. Maps in PDF, TransCAD and ESRI shapefile formats.

This task is estimated to cost \$35,000 and take approximately six weeks.

Task 4.3 – Thoroughfare and Transit Plan Update in East Collin County

The plan on the eastside has not been developed to match the assumed densities in Addendum 1 for the 3.4 million build-out population. This task will add roadways of the size and spacing appropriate to support that population. The cities on the east side will be consulted so that the resulting plan is coordinated with the cities' plans. This update is very important to accurately project traffic volumes on roadways in the area because traffic is distributed much better with the additional roadways than it is with fewer roadways much further

apart. This task requires a considerable time to coordinate with the cities and to work through iterations of proposals. Therefore, it will be performed concurrently with the other tasks so that it is completed as soon as possible. This task is estimated to cost \$63,500 and take approximately 12 weeks.

Contingency – A contingency is proposed in case it is determined useful to make additional model runs. Each model run costs approximately \$8,500. It is proposed to budget for possibly three additional runs or \$25,500.

This work will most likely result in two addendums: one to approve a new Thoroughfare and Transit Plan so it is “official” in case the new alignments affect developments or other projects; and a second one to approve the updated plan for the east side of the County.

It is recommended that Jacobs Engineering Inc be authorized to perform Tasks 4.1, 4.2 and 4.3 on an hourly basis for an amount up to \$107,400, and to perform additional model runs at a cost of up to \$8,500 per run only when authorized by the Director of Engineering. If approved, an increase of \$132,900 to their contract will be completed for the tasks identified here. Also request approval of a budget adjustment as follows:

From:

430-7530-680.88-01 / 070000 \$132,900

To:

430-7530-680.90-50 / NEW \$132,900