

## Craig Light

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**From:** Mueller, Todd, E [TEMuller@GarverUSA.com]  
**Sent:** Wednesday, April 29, 2015 5:49 PM  
**To:** Craig Light  
**Subject:** Hwy 351/Airport Road Roundabout

Craig,

Based on our conversations, I am providing a list and a summary of the areas of construction that have increased in estimated cost from the planning stages through the final plans. The decisions that were made in the process account for approximately ½ of the increase and additional items that were added throughout the process were the difference between the planning cost and the final plans cost estimation. The list of changes below discusses some of the decisions that were made in the process that increased the estimated project cost and the summarization list shows the difference in the planning costs and the final plans construction cost estimate for areas of construction.

- The surface area of the paved portion of the project was increased by 48% through various changes.
  - Reviewers required the 11' lanes on Hwy. 351 to be increased to 14' lanes
  - The overall length of the project was increased by 365' to meet various signing taper and acceleration lane requirements.
  - Reviewers required curb to open shoulder transitions that added pavement on all four approaches.
  - The bypass lane was widened and separated from the Roundabout with a concrete island.
- Reviewers required the use a thicker pavement section than the one that was submitted in the 90% plans which has a greater structural number than required by the pavement design.
- Reviewers did not allow the use of Type Special Drop Inlets, which would have allowed the roadway drainage to drain through a curb inlet and out the back to the adjacent open ditch. The use of an underground storm drain system with drop inlets, pipe culverts, and flared end sections and significantly increased the drainage cost.
- Sidewalk and wheelchair ramps were added to the project. The planning cost estimate did not include sidewalks and wheelchair ramps.
- Many additional traffic control devices were requested increasing the maintenance of traffic.
- A concrete island was added to separate the bypass lane from the roundabout and AHTD required that this island be a minimum of 6' wide.
- Reviewers required all of the Islands to be outlined in 10" paint and much of the 4" striping to be changed to 8" and 12" striping.
- Signing was not included in the planning cost estimate as sometimes the City or State provides this item on these projects. It has been included in the final cost estimate.

Shown below is a summarization of the cost increases on Hwy. 351/Aggie Rd.

<u>Item Summary</u>	<u>Additional Estimated Costs</u>
• Site Preparation -	\$60,792
• Earthwork -	\$50,092
• Maintenance of Traffic -	\$32,988
• Erosion Control -	\$16,183
• Drainage -	\$98,553
• Paving -	\$136,241
• Curbs and Islands -	\$29,560
• Sidewalks and Ramps -	\$41,587
• Striping and Signing -	\$50,233
• Seeding and Sodding -	\$2,885

Total Additional Estimated Costs - \$519,114

Please let me know if you need any additional information.

Thanks,



**Todd Mueller**  
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