

EXECUTIVE SUMMARY

The potential for a truck route and its appropriate alignment has been under discussion in the Delta area for several years. A number of potential alignments have been suggested, each with its own set of costs and benefits. The city, which currently contains approximately 5.5 square miles, has an approximate population of 8,200. U.S. Highway 50 runs through the center of town, and two state highways (348 and 92) converge on Highway 50 in the downtown area. The City has been working with the Union Pacific Railroad to realign the tracks through town and utilize the current rail corridor in order to create an alternate truck route.

Previous Study

In February of 2000, the City of Delta completed a Hazardous Materials and Truck Route Feasibility Study (Feasibility Study). The purpose of the Feasibility Study was to examine the issues surrounding the development and construction of a hazardous materials and/or heavy truck route, identify and discuss options, and make a preliminary recommendation of the most feasible route from a cost and benefit standpoint.

The Feasibility Study evaluated three potential truck route options including a Western Route, Central Route, and Eastern Route. The estimated cost for each option was:

- Option 1 = 22 to 37 Million Dollars
- Option 2 = 13 Million Dollars
- Option 3 = 22 to 27 Million Dollars

The Feasibility Study concluded that based upon benefits and costs, the Central Route was the most feasible truck route.

Objectives of the Current Study

The purpose of the current study is to further evaluate the recommended alignment from the Hazardous Materials Truck Route Feasibility Study and to more specifically determine the route characteristics so that the potential costs and impacts can be better identified.

Issues that were evaluated in this study include:

- Existing and projected traffic volumes
- Typical roadway cross section
- Design speed
- Traffic control devices
- Public access locations
- Private access locations

- Geometric alternatives including
 - North connection
 - Curve alignment
 - SH 348 connection
 - South connection
- Intersection Levels-of-Service
- Overpass vs. Underpass at UPRR bridge structure
- Improve safety, mobility and travel times across the UPRR tracks
- Construction Costs
- Palmer street alignment
- Central alignment
- Environmental

Both rural and urban (curb & gutter) typical cross sections were developed. A four-lane urban section with curb & gutter and sidewalks is recommended for the alternate truck route and two-lane section for the Recreation Center access road.

Traffic Signals

Traffic Signals are recommended for the following intersections:

- Intersection of Main Street at the North end of the alternate truck route
- Intersection of 5th street and the alternate truck route
- Intersection of Main Street at the South end of the alternate truck route

Public Participation

There were two formal meetings to solicit public input. Public input was heard at a hearing on January 31, 2006 and a city council meeting on March 21, 2006. Comments were incorporated into the selection and design of the preferred alternate.

Underpass Option

One option for grade separation between the UPRR rail lines and the proposed Alternate Truck Route is an underpass. This would pass the vehicular traffic underneath the train tracks. The vertical grades allowed for rail lines are much less than those used for roadways, so the train will remain at the existing grade, and the road would be approximately 21ft below the ground surface. Due to the problems associated with the high ground water, and potential flooding, the underpass option is not considered practical. Any initial cost savings would be quickly overwhelmed by maintenance and safety problems associated with pumping out the ground water.

Overpass Structure

The proposed overpass is located about 1000 ft west of US 50, at the existing UPRR tracks, in the northern portion of Delta, Colorado and runs roughly North-South along Columbia St. at 1st St.

Cost and ease of construction are important factors. A pre-stressed girder continuous span bridge fits both of these criteria.

Estimated cost would be approximately \$3,800,000.

Environmental

A study of the following environmental resources was conducted.

- Cultural
- Wetlands
- Socio-Economic
- Hazardous Materials

Nothing significant was found that would prevent the construction of the preferred alternate.

Right-of-way

Additional right-of-way will be needed at the following locations:

- Start of the Project to the bridge
- Bridge
- SH 92 to End
- Recreation Center Access Road

Alternative Identification and Evaluation

Several geometric alternatives were identified and evaluated in this study. The alternatives were generally identified in response to public or agency comment, or by the consultant team through the conceptual design process.

The following alternatives were developed and evaluated in this study:

- North Connection Alternatives
- Palmer Street Alternatives.
- Curve Alternatives.

- Alignment Alternatives.
- Highway 348 Connection Alternatives.
- South Connection Alternatives.
- SH 92 Connection Alternatives.

The alternatives were evaluated based upon several planning level screening criteria including: capital cost, land impact, environmental impacts, traffic operations, access impacts, effectiveness, and safety.

Each alternative was assigned a raw score ranging from 1 (best) to 3 (worst) depending upon how the alternative fared against the screening criteria and in comparison with the other alternatives. In addition, the raw scores for traffic operations and effectiveness were weighted twice as important as the remaining criteria.

Estimated Project Cost

Estimated project cost including construction, right-of way, and railroad relocation is approximately \$12,950,000. Final design and further environmental studies will add another one to two million to the final costs.

Next Steps

The next steps are to use this study as a basis to start the process to obtain funds for the following items:

- Environmental Study
- Preliminary Design
- Final Design
- Purchase of right-of-way
- Construction