

Value Engineering Returns \$1.85 Million to Florida County

A VALUE ENGINEERING REDESIGN BY FINLEY ENGINEERING GROUP, INC., COMBINED WITH COST-EFFECTIVENESS MEASURES TAKEN BY ZEP CONSTRUCTION, will return \$1.85 million to Lee County, Fla. on the Estero Parkway Flyover project.

Finley's redesign replaces twin, cast-in-place concrete box girders with a single, four-steel box girder design. This solution provides significant economic benefits with the elimination of a large falsework support system, reduced construction time, reduced foundation design requirements, and simplified construction.

The new Estero Parkway Flyover, 561 ft long with spans of 340 ft and 221 ft and approximately 116 ft wide, will alleviate traffic on the parkway and nearby I-75 in the Estero community, which is southeast of Fort Myers. It will complement the widening of Corkscrew Road while providing a link to areas east and west of I-75. It will also provide an alternate east-west route for travelers using the Tamiami Trail and I-75.

"By using shallower steel girders, it allows for the use of smaller grades, so it won't require as much fill on each approach," said Robert Clark, Jr., president of steel fabricator Tampa Steel. "The contractor can also erect the bridge in longer sections, which means fewer obstructions in the roadway."

The redesign also calls for a staged temporary tower support scheme to optimize the efficiency of the steel section,

which allowed the steel bridge solution to be competitive against the initial cast-in-place concrete design.

In addition, the driving public benefits from the redesign through reduced traffic maintenance requirements. The redesign also enhances overall project safety with the elimination of falsework over the Interstate and reduces risks associated with a constrained traffic pattern through the falsework system.

The \$1.85 million refund to the county is significant because the county is responsible for funding the flyover, and in the wake of a tax cut passed down by the state, the money will help the county meet its budgetary commitments.

"We're obviously pleased," said Donald Deberry, P.E., public works operations manager for Lee County. "We always appreciate working with engineers and contractors who are willing to take a second look at projects and find ways to give the public more bang for their buck."

"We see this as a great example of what can happen with value engineering when the owner, contractor, and engineer come together to create a design that takes the contractor's strengths into account and utilizes the best material for the challenges of the project," says Craig Finley, president of Finley. "In this case, the redesign from concrete to steel had an overall positive effect on the cost, schedule, and efficiency of the bridge. With construction budgets as tight as they are, there's no room for waste in any of these areas."