DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: CSMSL-0008-00(690), Chatham County
PI No.0008690
Jimmy Deloach Connector from SR 307/Bourne Avenue to Jimmy Deloach Parkway

OFFICE: Innovative Program Delivery

DATE: March 12, 2012

FROM: Darryl VanMeter, P.E., State Innovative Program Delivery Engineer

TO: Lisa Myers, State Project Review Engineer

SUBJECT: Value Engineering Implementation Reversal Request

The Office of Innovative Program Delivery requests a Value Engineering Study Implementation Reversal on the above noted project. The VE Implementation letter was distributed on March 30, 2010.

This office requests to reverse alternative RD-2 from not implement to implement. The alternative as described in the VE Study would construct a typical intersection at SR 307/Bourne Avenue rather than a split intersection that allows future construction of a diamond interchange. The proposed savings was estimated to be $610,500 in the VE Report.

The original VE response indicated that a typical T-intersection was not recommended due to smaller travel time savings, smaller benefit cost ratio, and a larger "throwaway" in pavement cost for potential future extension of Jimmy Deloach Connector to SR 21 near Smith Avenue. After additional preliminary engineering and project development, it has been determined to partially implement the initial VE recommendation by constructing a T-intersection and purchasing adequate right-of-way to accommodate future diamond ramps. This will minimize immediate project impacts and costs.

It is understood that a T-intersection would marginally increase travel time through the proposed corridor by approximately 1.09 minutes/vehicle in comparison to the split intersection, however this can be mitigated by signal timing optimization after construction is complete and project is open to traffic.

A T-intersection would reduce the project footprint, minimize wetland impacts within construction limits and eliminate one additional signalized intersection at SR 307/Bourne Avenue resulting in upfront cost savings of approximately $331,219. These are estimated as shown below -

- Increase in Unclassified Excavation – 991 cy x $8.00 = $7,928
- Reduction in Borrow Excavation – (23,865 cy) x $9.10 = ($217,171)
- Reduction in graded aggregate base – (220 tn) x $28.00 = ($6,160)
- Reduction in Recycled Asph Conc 19mm Superpave – (52 tn) x $74.39 = ($3,868)
- Reduction in Plain PC Conc Pvmt, Cl 1 Conc, 12" Thick – (1100 sy) x $50.00 = ($55,000)
- Reduction in Concrete Median, 6" – (797 sy) x $47.00 = ($37,459)

- Reduction in Guardrail, Tp T – (400 lf) x $17.00 = ($6,800)
- Reduction in Guardrail Anchorage, Tp 1 – (2 ea) x $653.00 = ($1,306)
- Reduction in Guardrail Anchorage, Tp 12 – (2 ea) x $1,870.00 = ($3,740)
- Addition of Impact Attenuator, Type P – 1 ea x $16,572 = $16,572
- Reduction of Temporary Grassing – (1.75 ac) x $816 = ($1,428)
- Reduction in Mulch – (30 tn) x $266.45 = ($7,993)
- Reduction in Permanent Grassing – (2.5 ac) x $2000 = ($5,000)
- Reduction in Pref Plastic Skip, 8" – (2700 glf) x $2.00 = ($5,400)
- Increase in Pref Plastic Solid, 8" – 2107 lf x $5.81 = $12,241
- Reduction in Strain Pole, Tp II – (2 ea) x $6,110 = ($12,220)
- Reduction in wetland impacts/mitigation costs – (0.61 acres) x (7.0 credits/acre) x $6,000 = ($25,620)
- Increase in design fees - $21,206

Additional cost savings would include recurring operating and maintenance costs for future signal.

While accommodating for future extension in the current project is a good practice, it is not included in the region's current transportation plans and the likelihood of this extension is currently unknown. Therefore, this office recommends the construction of a T-intersection with adequate right-of-way to accommodate future construction of diamond ramps.

If you need additional information, please contact the Project Manager, Andrew Hoenig, at 404-631-1757.

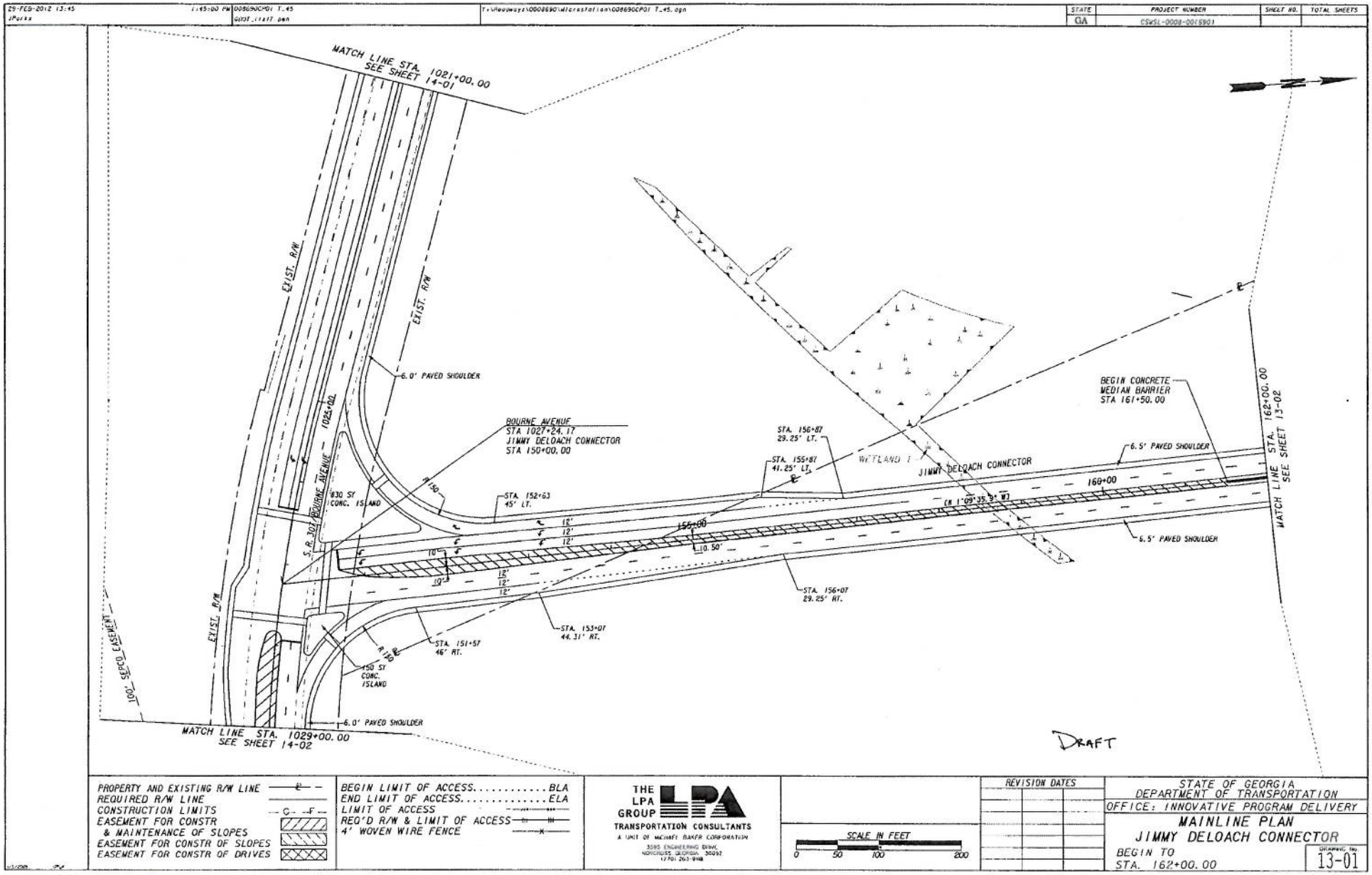
Approved: Lisa L Myers _____ **Date:** 3/12/12
Lisa Myers, Project Review Engineer

Approved: _____ **Date:** 3/20/12
Russell McMurry, P.E., Director of Engineering

Approved: _____ **Date:** 3/22/12
Gerald M. Ross, P.E., Chief Engineer

DVM:MDD:CAH

Attachments: VE implementation letter



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS..... BLA
END LIMIT OF ACCESS..... ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
4' WOVEN WIRE FENCE

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3095 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN
JIMMY DELOACH CONNECTOR

BEGIN TO
STA. 162+00.00

DRAWING No. 13-01