

SR 400 @ Hammond Drive

Post Design-Build Evaluation Report

December 16, 2011



P.I. Number: 0008415

Project Number: CSNHS-0008-00(415)

County: Fulton

City: Sandy Springs, Georgia

Location: SR 400 at Hammond Drive

GDOT District: Seven

Type of Contract: Design-Build

Post Design-Build Evaluation Meeting Date: November 18, 2011



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1. Project Description

This Full Oversight (FOS) project included the construction of an 8-lane Hammond Drive bridge over SR 400 providing 3 through lanes in each direction, 2 left turn lanes eastbound and a divided raised median. The project also included improvements to the approaches along Hammond Drive, ramps oriented to the north, auxiliary lanes along SR 400 from the Hammond Drive Ramps to the Abernathy Road ramps and a sound barrier along the east side of SR 400. The bridge was built to accommodate the future width of the proposed SR 400 Collector Distributor system, PI No. 721850 (NHS-056-1(52)).



2. Project Goals for Converting to Design-Build Delivery

Expedite delivery through Design-Build contracting.

3. General Design-Build Project Summary

Public Notice Advertisement (PNA)	11/16/2007	No. of price/technical proposals received	5
Request for Qualifications (RFQ)	12/14/2007	Amount of lowest bid	\$ 17,128,865.41
Statement of Qualifications (SOQ)	1/25/2008	Technical Review Committee	12/15/2008
No. of Design-Build SOQ's received	7	Award	12/24/2008
Phone interviews conducted	4/15/2008	NTP (design phase)	2/4/2009
Shortlist notification	5/27/2008	NTP (construction phase)	11/4/2009
No. of Design-Build teams shortlisted	5	Scheduled completion	8/31/2011
Request for Proposals (RFP)	10/17/2008*	Actual completion	8/26/2011
Price/technical proposals received (Letting)	12/12/2008	Open to traffic	9/2/2011**

* Procurement delays occurred while the project funding details were finalized

** Perimeter Community Improvement Districts (PCID) requested a delay in the "open to traffic" date so that they could collect traffic counts for the pre-opening condition. This was done in order to compare to post opening condition to monitor traffic pattern changes.

4. Letter of Interest/Statement of Qualification (LOI/SOQ)

GDOT received 7 LOI/SOQs from potential Design-Build teams which are listed below (alphabetical by Contractor).

	Contractor	Designer
1	Archer Western Contractors, Ltd.	Arcadis
2	C. W. Matthews Contracting Co., Inc.	The LPA Group
3	E. R. Snell Contractor, Inc.	JJ&G
4	Pittman Construction Company, Inc.	Clark Patterson Lee
5	Rogers Bridge Company Inc	Heath & Lineback
6	SKANSKA USA Civil Southeast Inc.	Wilbur Smith
7	Sunbelt Structures, Inc.	URS

5. Shortlist

GDOT evaluated each proposing Design-Build team based on their LOI/SOQ and phone interview. The teams were ranked based their total score. GDOT shortlisted the 5 highest qualified teams as permitted under *Rules of the State Department of Transportation, Chapter 672-18 Governing Design-Build Procedures* that were current at the time of advertisement. The shortlist included the following teams (alphabetical by Contractor):

	Contractor	Designer
1	Archer Western Contractors, Ltd.	Arcadis
2	C. W. Matthews Contracting Co., Inc.	The LPA Group
3	E. R. Snell Contractor, Inc.	JJ&G
4	SKANSKA USA Civil Southeast Inc.	Wilbur Smith
5	Sunbelt Structures, Inc.	URS

6. Design-Build Request for Proposal (RFP) Package

The RFP package included special provision 999 (Design-Build), other related special provisions and specifications, Utility Memorandums of Understanding (MOU), costing plans, as well as the below information which was posted on GDOT’s read-only FTP site for use by proposing Design-Build teams:

- Approved Concept Report
- Approved Interchange Justification Report (IJR)
- Approved Environmental Document
- CAiCE data
- Microstation J files
- Approved Design Variances
- Bridge Foundation Investigation Report
- Soils Survey Report
- Wall Foundation Investigation Report
- Pavement Structures
- Overhead/Subsurface Utility Engineering (SUE) Investigation Plans for Quality Level “B” (QL-B)
- Costing Plan Review Report
- The Department’s initial outline of the Transportation Management Plan

7. Bid Results

On 12/12/2008 the project was let. Price and technical proposals were received. Below is the list of Design-Build teams' price proposal results:

	Contractor	Designer	Total Bid
1	C. W. Matthews Contracting Co., Inc.	The LPA Group	\$ 17,128,865.41
2	Sunbelt Structures, Inc.	URS	\$ 18,134,490.00
3	Archer Western Contractors, Ltd.	Arcadis	\$ 19,890,000.00
4	E. R. Snell Contractor, Inc.	JJ&G	\$ 21,238,470.14
5	SKANSKA USA Civil Southeast Inc.	Wilbur Smith	\$ 22,140,240.80

8. Stipend

A stipend was not used for this project. In Design-Build contracting, a stipend is typically used as a payment for work product, encourage competition or innovation, and/or compensate unsuccessful submitters for a portion of their development costs. GDOT chose not to utilize a stipend based on the large amount of information that had been prepared and was being advertised as part of the RFP package; as well as the competitive market conditions that existed around the time of the Design-Build procurement phase.

9. Design-Build Procurement Summary

Perimeter Community Improvement Districts (PCID) contributed \$5,000,000 towards the project. In addition, PCID funded certain Preliminary Engineering (PE) activities through a contract with Moreland Altobelli (MA) to develop portions of the RFP package such as the survey database, concept report, costing plans, environmental document, BFI, WFI, soils report, Design Variances, IJR, and bridge layouts.

GDOT's Office of Transportation Services Procurement advertised the Design-Build Public Notice Advertisement (PNA), the Request for Qualifications (RFQ), facilitated the evaluation and ranking of Design-Build teams for the shortlist, and monitored the Technical Review Committee during the evaluation of the technical proposals.

GDOT's Office of Construction Bidding Administration advertised the RFP package, prepared amendments and facilitated the execution of the Design-Build contract.

GDOT's Office of Innovative Program Delivery managed the development of the RFP, managed the Design-Build contract through the design phase, and actively assisted the Office of Construction during the construction phase of the Design-Build contract. HNTB Corporation assisted GDOT's Office of Innovative Program Delivery with consultant Design-Build project management support services.

GDOT awarded the Design-Build project to the "lowest qualified bidder" as required per Georgia Code 32-2-81 (current at the time of advertising). The apparent low bidder was the Design-Build team of C.W. Matthews Contracting Co., Inc/The LPA Group. The Technical Review Committee convened on December 15, 2008 and determined that the apparent low bidder's technical proposal met the minimum requirements as specified in Special Provision 102. The Technical Review Committee recommended award, and on December 24, 2008 the contract was awarded to the Design-Build team of C.W. Matthews Contracting Co., Inc/The LPA Group.

10. Comments

A. Design-Build RFP Package

The RFP package included those items listed in Section 6.

GDOT conducted a costing plan review on 1/23/2008 prior to the RFP being advertised. The purpose of this meeting was to introduce the project as Design-Build to GDOT staff and FHWA, and to engage all GDOT offices regarding project scope and schedule. This meeting was beneficial and allowed all Offices to better understand what was being advertised and the general Design-Build delivery process.

GDOT's Office of Innovative Program Delivery (IPD) led the development of Special Provision 999 (Design-Build), as well as the development of other related shelf special provisions. For this project each shelf special provision was updated so that measurement was listed as "not measured separately," and payment was listed as "to be paid for under Construction Complete." This effort to update all related shelf special proved to be cumbersome.

Asphalt Cement (AC) indexing was included in the project as per Special Provision 400 and 402. The fuel index was not included in this project.

For this project the proposing Design-Build teams submitted questions during the RFP phase (similar to Design-Bid-Build), and GDOT only responded if an amendment was necessary. If a question didn't warrant an amendment then GDOT did not provide a response.

[DESIGN-BUILD TEAM COMMENT: Special Provision 999 seems to be clear and concise; however there may be some repetitiveness that could be improved. A Q&A format whereby GDOT answers all questions would be helpful in Design-Build contracting.]

B. Innovative Design, Solutions or Materials

The awarded Design-Build team, C.W. Matthews Contracting Co., Inc/The LPA Group, coordinated with Georgia Power Company (GPC) during the RFP phase and realized that there was a GPC owned conduit that went under SR 400 which if used could have facilitated a quicker and less costly relocation. This preliminary coordination with utility owners by proposing Design-Build teams is encouraged.

The original approved Bridge Layout, advertised with the RFP package, was modified by the awarded Design-Build team. This modification included the removal of one beam through the use of a slightly deeper beams and thicker deck section.

[DESIGN-BUILD TEAM COMMENT: Retaining wall types and sizes were adjusted from those shown in the costing plans as well for optimization.]

C. Design-Build Submittals/Plans

Submittals requirements along GDOT's review times were specified in Special Provision 999 (Design-Build). Submittals included: the basis of design, schedule, QC/QA plan, preliminary and final roadway plans, preliminary and final bridge/wall plans, Traffic Engineer (TE) study and signal permits, utility plans/agreements, preliminary utility status report, emergency response plan, relocated utility plans, overhead/Subsurface Utility Engineering (SUE) investigations, SUE Utility Impact Analysis, construction traffic control plan, Transportation Management Plan (TMP), shop drawings and as-built plans.

During the design phase, GDOT's Office of Innovative Program Delivery received all submittals, distributed to the appropriate GDOT offices and/or FHWA for review, collected comments, provided responses to the

awarded Design-Build team, and coordinated other activities such as the NEPA reevaluation. By all accounts this processed work well.

During the construction phase, GDOT's Construction Project Engineer received submittals, and distributed to the appropriate GDOT offices and/or FHWA for further handling. GDOT's Office of Innovative Program Delivery remained engaged during this phase to monitor progress, serve as resource, and manage any plan revisions. By all accounts this process seemed to work well.

Review times that ranged from 14 to 30 days for various submittals were achievable for this project. GDOT met all submittal review times specified in Special Provision 999; and in some cases review times were performed quicker than contract maximums.

[FHWA COMMENT: The Transportation Management Plan (TMP) prepared by the Contractor was well prepared]

[GDOT TRAFFIC OPERATIONS COMMENT: Recommend increasing GDOT review time for preliminary plans and consider specifying more detail be required (more in line with a final plan submission) so that a detailed review can be performed as early as possible in the design phase of the Design-Build contract which could help eliminate comments or questions during the final plans review.]

[DESIGN-BUILD TEAM COMMENT: On design-build projects, GDOT should include in the scope of services any TMP requirements such as speed monitoring. Otherwise on subsequent projects this may not be included in the Design-Build bid.]

[DESIGN-BUILD TEAM COMMENT: GDOT should consider adjusting review times, as appropriate, to not allow more time than is truly needed to perform a review. One suggestion was to increase the review time for preliminary plans and possibly allow less time to review final plans.]

D. Plan Quality

By all accounts the quality of plans and various submittals were acceptable.

E. Environmental Document

GDOT was responsible for obtaining the environmental document which was an Environmental Assessment/Finding of No Significant Impact (EA/FONSI). The original document was approved on January 16, 1998 which included projects CSNHS-0008-00(415) and NH-056-1(52).

A re-evaluation of the EA/FONSI was approved on April 16, 2008. This approval occurred prior to the Design-Build RFP being advertised on October 17, 2008.

After the awarded Design-Build team completed preliminary plans, GDOT performed a re-evaluation which was approved on September 24, 2009. Additional coordination with FHWA occurred in late 2009 and early 2010 after a previously undocumented stream was identified.

F. Environmental Permitting

GDOT was responsible for obtaining the environmental permit on this project.

On July 25, 2008 the US Army Corps of Engineers (USACOE) issued a Nationwide Permit 14 for filling a total of 397 linear feet of streams which required mitigation calculated to be 1879 stream credits.

On August 25, 2009 the USACOE reauthorized the permit to account for a reduction in impacts based on the awarded Design-Build team's design. These revised impacts were for filling a total of 260 linear feet of streams which required mitigation calculated to be 1234 stream credits.

A previously undocumented stream was discovered during the review of the final plans. On April 22, 2010 the USACOE reauthorized the permit to account for filling 359 linear feet of streams which required mitigation calculated to be 1704 stream credits.

[**GDOT IPD COMMENT:** Having to reauthorize the permit in such a short period of time created some confusion. It was handled well by all parties through good communication.]

G. **Notice of Intent (NOI)/Stream Buffer Variance (SBV)**

Erosion Sedimentation & Pollution Control Plans (ES&PCP) were prepared by the awarded Design-Build team. On September 10, 2009 GDOT's Office of Construction Bidding Administration provided the ES&PCP to Georgia's Environmental Protection Division (EPD) Watershed Protection Branch for review as per standard GDOT procedure. On September 14, 2009 EPD responded in a letter with comments which noted the plan "does have deficiencies in the identification of the waters of the state."

A subsequent site visit was performed by GDOT and the Consultant who prepared the Ecology Addendum. During that site visit a previously undocumented stream was discovered. An addendum to the original ecology report dated October 9, 2009 was produced to address impacts to the previously undocumented stream (Stream 1A, a perennial stream). Although a portion of Stream 1A flowed through a concrete ditch and did not require a 25' buffer, the remaining portions of the stream did require a 25' buffer.

The awarded Design-Build team provided responses to the September 14, 2009 EDP letter, and revised the ES&PCP per EPD comments. These ES&PCP revisions included the addition of an orange barrier fence around Stream 1A and its buffer with a note stating no work shall occur until a SBV is issued by EPD, the Nationwide 14 Permit is revised, and GDOT provides written authorization that work may commence. GDOT submitted the NOI and revised ES&PCP to EPD on October 8, 2009. On October 15, 2009 EPD responded with a letter which stated the project "does not have deficiencies in the identification of waters of the state," reiterated that a SBV is required based on the impacts to Stream 1A buffer, and provided a comment regarding a monitoring site.

The awarded Design-Build team revised the ES&PCP and NOI based on the October 15, 2009 EPD letter, and GDOT resubmitted to EPD on October 20, 2009.

The SBV was approved on May 7, 2010. On May 14, 2010 GDOT authorized the awarded Design-Build team to commence work within the buffered area under the conditions set forth in the Stream Buffer Variance.

It is noted that the awarded Design-Build team was able to adjust the design to eliminate impacts to Stream 1A through the use of a steeper slope on the embankment (requiring the use of a geo-grid mat for additional stabilization); however a SBV was still required due to the existing buffer encroachment.

[**CONTRACTOR COMMENT:** The Notice of Intent (NOI) and ES&PCP package submittal to EPD seemed to be cumbersome. Plans were initially prepared, stamped, submitted by GDOT to EPD, EPD commented, plans were updated, re-stamped and resubmitted to EPD.]

H. Environmental Mitigation

GDOT was responsible for obtaining stream mitigation credits. On May 4, 2009 GDOT acquired 1897 stream mitigation credits (note that 1897 is listed in the Environmental Commitments as opposed to 1879 as per the permit). The total stream credits needs for PI No. 0008415 were 1704 stream credits.

[**GDOT IPD COMMENT:** Since this project, GDOT has been transferring the role of acquiring any mitigation credits on Design-Build projects to the Design-Build team.]

[**DESIGN-BUILD TEAM COMMENT:** If GDOT transfers the role of acquiring mitigation credits to the Design-Build team then GDOT must also provide the “tools” to proposing Design-Build teams; meaning the special study documentation must be provided and not withheld. If this information can’t be provided to Design-Build teams for any reason then GDOT should strongly consider not transferring this risk item to the Design-Build team.]

I. Public Involvement

GDOT was responsible for the Public Involvement process as part of the EA/FONSI. In addition, GDOT created and managed a project website for the duration of the construction phase of the Design-Build contract. The project website was updated at least monthly. A project email was also created and managed by GDOT’s Office of Innovative Program Delivery.

Targeted meetings with adjacent property owners were conducted which typically included the Design-Build team, GDOT, PCID, property manager, and in some cases tenants. The general purpose of these meetings were to discuss the construction schedule.

J. Right of Way (R/W)

GDOT was responsible for acquiring the R/W. GDOT acquired the R/W needed to construction this project, PI No. 0008415, as part of the SR 400 Collector Distributor system project, (PI No. 721850 (NHS-056-1(52))). The following parcels were acquired for this project: 1, 2, 3, 4, 4A, 5, 6, 7, 8, 9, 10, 12 and 13.

Special Provision 107 included in the RFP package stated that GDOT was the responsible entity to acquire R/W, and also included an estimated date for the title and possession of each parcel. GDOT’s Office of R/W issued a notice on August 14, 2009 stating that title and possession had been obtained for all parcels necessary to construct this project.

[**FHWA COMMENT:** The R/W designation for this project, PI No. 0008415, was NR (none required). However, R/W was actually required to construct this project. FHWA cautioned that a clear line of communication is required regarding R/W on subsequent Design-Build projects with similar circumstances]

K. Utilities

SUE QL-B was collected as part of the SR 400 HOV project, (PI No. 0001757). This information was provided to proposing Design-Build teams in the Design-Build RFP.

Memorandums of Understanding (MOU) were obtained from each utility owner for this project which was included in the Design-Build RFP.

Fulton County was the only utility owner to originally request that their facility relocations be included in the Design-Build contract. This only included the raising of sanitary sewer manholes to grade. All other utility relocations were performed by the respective utility owner. Utilities with prior rights were a reimbursable item for the design and construction of their relocations. The awarded Design-Build team was responsible for researching and validating prior rights claims; as well as working with the utility owner to prepare utility agreement(s) for GDOT's review.

Special provision 999 included the scope of services regarding utility coordination. In general, the awarded Design-Build team was responsible for coordinating all facets of the utility coordination process, and providing information in an organized manner for GDOT's review.

Even though the project was Design-Build, utility owners were still responsible for submitting for a permit through the Georgia Utilities Permitting System (GUPS).

Utility impacts were extensive on this project due to the large number of utilities present on the existing Hammond Drive Bridge. The awarded Design-Build team was instrumental in proactively coordinating with utility owners during the course of design phase.

Preliminary and final utility plans were reviewed by the District Utilities Office. At the time of the final utility plans submittal to the State Utilities Office (SUO), there were several new items in question, one of which related to a retention request. The SUO along with the utility owner were quick to help resolve the matter and process a retention request.

The nature of the Design-Build process requires the utility owners to use the awarded Design-Build team's design plans for preparing utility relocation plans, cost estimate (if necessary), and respective Utility Adjustment Schedules (UAS). Some UAS did not document event which became known during the construction of the project such as utility facility owners claiming a moratorium on cutovers between Thanksgiving and Christmas holidays, a utility owner availability of the required material needed to complete an installation and a utility owner having asbestos lines which required time needed for its removal. The awarded Design-Build team must be commended for coordinating the various facets of utility relocations.

By all accounts, the awarded Design-Build team did a good job staging the construction of the bridge around utility relocations.

[DESIGN-BUILD TEAM COMMENT: There were a large number of utilities on this project. This project presented a learning opportunity for all parties involved.]

[GENERAL GDOT COMMENT: GDOT commends the Contractor for their work coordinating utilities on this project.]

L. Geotechnical

The awarded Design-Build team revised the BFI's and WFI's based on slight modifications to the Bridge and wall layouts. There was some rock encountered on the job which the awarded Design-Build team had to remove.

M. Construction

The plans were designated as Released for Construction with a date of 11/4/2009. GDOT's Office of Innovative Program Delivery assisted during the construction phase by providing weekly site observations. In addition, periodic meeting were facilitated by the Office of Innovative Program Delivery on site to review project status, schedule, plan revisions or redlines, other issues, R/W related matters, etc...

There was an open line of communication between GDOT's Office of Construction, and GDOT's Office Innovative Program Delivery which helped make the project a success.

No Value Engineering Change Proposals (VECP) were submitted by the awarded Design-Build team on this project.

The awarded Design-Build team did a good job developing and implementing a staging plan; especially with the large number of utilities on the Hammond Drive bridge.

[GDOT CONSTRUCTION COMMENT: The asphalt pavement that was installed adjacent to the existing concrete pavement on the ramps should be squared off or concrete pavement installed and squared off perpendicular to the traffic flow. This prevents a future maintenance problem.]

[GDOT IPD: The asphalt section is temporary and constructed adjacent to the existing SR 400 concrete pavement since the ramps will be relocated as part of the SR 400 Collector Distributor system project, (PI No. 721850 (NHS-056-1(52)).]

N. Design-Build Administration

During the design phase, the Office of Innovative Program Delivery's Project Manager was responsible for ensuring that all submittals were reviewed by GDOT offices and FHWA (as applicable), responses were provided to the awarded Design-Build team, and that all requirements were met in order for GDOT to authorizing construction (land disturbing) activities.

After construction authorization was issued, GDOT's Office of Construction managed the project similar to a Design-Bid-Build project. During this phase the Office of Innovative Program Delivery remained engaged by monitoring the project's progress and serving as a resource, as needed.

Invoices were based on lump sum pay items; one for Design Complete and another for Construction Complete. Payment for these were based on an approved schedule of values. The awarded Design-Build team was extremely helpful by providing additional detail to substantiate the stated percent complete.

GDOT's Office of Innovative Program Delivery and the Office of Construction worked well together in determining if a plan change should be reviewed by the appropriate GDOT offices or treated as a redline.

O. Project Delays

There were no apparent project delays. The awarded Design-Build team effectively managed and coordinated utility relocations which ultimately led to the project being delivered on time.

P. Coordination with Local Stakeholders

GDOT worked closely with PCID, Sandy Springs and GDOT Communications. PCID and Sandy Springs were invited to many project related meetings and were afforded the opportunity to review the plans.

Several change requests were made by PCID after the plans were designated as Released for Construction. Managing these changes while in construction worked out well due to the commitment from all parties to help make the change happen, however it would have helped to have these changes requested sooner.

Sandy Springs had committed to provide several countdown pedestrian heads; and to provide and pull the signal fiber interconnect. During the course of the project, there was employee turnover within the Sandy Springs organization. This did not create a major issue, but reinforced the importance of documenting any local commitments.

Q. DBE

The DBE goal for this project was 12% which was achieved. This goal was for the overall contract, and not separated for the design and construction phases.

R. Supplemental Agreements

A summary of the supplemental agreements are shown below.

SA No.	Amount	Reason
1	\$39,610.03	Earthwork, geo-grid and redesign necessary to avoid a previously unidentified stream (Stream 1A).
2	\$7,100.00	Ashlar Stone finish as requested by and funded by CBRE.
3	\$222,243.76	Hammond Drive bridge parapet change to a Texas rail with closed panes, along with the installation of "blisters" needed for the installation of street lamps, and a change in color on the chain link fence color change and two strain poles as requested and funded by PCID.
4	\$139,000.00	City of Atlanta waterline installation as requested and funded by City of Atlanta.
5	\$2,097.38	Reinstallation of RPM's which were damaged from snow/ice removal as requested by and funded by GDOT.
6	(\$6,315.60)	Deduction for fencing along bridge.
	\$403,735.57	TOTAL

11. Summary

The following comments and recommendations are made to assist GDOT with enhancing the Design-Build process. A number of areas noted have been addressed on subsequent Design-Build projects.

A. Design-Build Procurement

- Recommend implementing a Question & Answer (Q&A) format during the RFP phase so that proposing Design-Build teams can gain a better understanding of the scope's intent.

B. Costing Plans

- The Costing Plans compliment the scope, but are not the scope of services for the project. Costing plans form the framework for R/W footprint and the environmental document.
- Design exceptions or design variances that are necessary to construct the costing plans should be obtained and included in the Design-Build RFP.
- Consideration should be given as early as possible in the development of the costing plans as to the extent of signing impacts that would result from a project. Consideration should also be given to preparing a conceptual signing plan and it being included in the Design-Build RFP. If the opportunity exists for signs structures to be reused then GDOT should provide the existing shop drawings or cut sheets for the existing sign structures to the proposing Design-Build teams so that they can assess the ability of the existing sign structure and new sign area.
- Environmental documentation and associated risks should be managed carefully. These should not simply be transferred to Design-Build team.

C. Special Provisions

- The type and height of fence should be clarified in more detail for such cases as Limited-Access, on top of retaining walls, on bridges, etc.... In addition, if not specified in any GDOT design related manual, the use of a fence alongside any drop off greater than 30" (or less) should be specified in Special Provision 999.
- GDOT should investigate all existing and proposed projects (whether in Design or Construction, or sponsored by the Locals) and begin coordination with them as soon as possible. The proposing Design-Build teams should be provided as much specific information as to the extent of work needed to accommodate adjacent projects. Any adjacent project related information must also be provided to the proposing Design-Build teams.
- The sound barrier material and color should be considered and specified in the Design-Build RFP. In addition, possible locations of sound barriers (along the roadway or along the embankment) should be considered in the noise analysis so to allow the awarded Design-Build team flexibility in the location of the sound barrier.
- Recommend close coordination with GDOT Traffic Operations during the development of Special Provision 999 with respect to Signing & Marking, as well as, ITS related components.
- Recommend requiring all new equipment for the portion of ITS system that is impacted. On this project the scope was written such that equipment could be salvaged and reused.
- This project included liquidated damages for the ITS system. Special Provision 108.08 stated the "system shall not be taken out of service for more than 72 hours during construction. Failure to have the ITS system operational 72 hours after shut down shall result in assessment of liquidated damages at a rate of \$1,000.00 per hour or portion thereof until the system is operational. Recommend limiting

service disruption to 24 or 48 hours and possibly to a maximum number of disruptions.” Recommend this be considered for projects impacting the ITS system.

[DESIGN-BUILD TEAM COMMENT: These outage periods were well intend, but could have created some unintended consequences in the construction workflow. GDOT should consider modifying the periods or allowing a little flexibility to lengthen the period on a per occurrence basis. Another option GDOT could consider is more along the lines of a lane rental type basis.]

- Recommend Traffic Engineering (TE) studies be performed prior to advertising the RFP package. Recommend that each location specify if a traffic signal will be required and that any signal permits are obtained from the Locals, if required, as early as possible and prior to advertising of the RFP package. In general, the question of who will retain ownership of the signal after construction should be resolved prior to the RFP package being advertised.
- For wide bridges, concrete paving should be specified under the Bridge in the Design-Build RFP. Otherwise the awarded Design-Build team is only responsible for establishing a stand of grass. If the stand of grass doesn't occur then the awarded Design-Build team will be responsible for stabilizing this area under the proposed Bridge.
- Consideration should be given to updating the Mobilization specification on Design-Build projects to limit the amount paid for this item to a stated maximum percentage, and to structure the payout schedule for it so that it is paid after GDOT's construction authorization is issued.
- Consider updating *Special Provision 105.04 Coordination of Plans, Specifications, Supplemental Specifications, and Special Provision* so that Special Provision takes precedence over all Special Provisions. This would eliminate the need to update shelf special provisions to remove measurement (not measured separately) and update payment (to be paid for under construction complete).

[GDOT ENGINEERING SERVICES: Ensure that GDOT's Construction Bidding Administration and GDOT Legal are acceptable of the change to Special Provision 105.04.]

D. NEPA

- GDOT should consider on each Design-Build project shifting the responsibility to the awarded Design-Build team for identifying if a Stream Buffer Variance (SBV) is required and also preparing the SBV application.
- GDOT should consider on each Design-Build project shifting the responsibility to the awarded Design-Build team for obtaining mitigation credits based on their proposed design's impacts to streams and wetlands. This may be additional incentive for the awarded Design-Build team to further avoid streams and wetlands.
- The special studies performed as part of the environmental document should cover a broad area (a certain number of feet beyond the R/W) in order to allow some flexibility by the awarded Design-Build team to modify the design. As with any project the accuracy of special studies is critical.

E. R/W

- Anticipate R/W commitments and include them as a scope item in Special Provision 999 as necessary. This may include, but is not limited to driveways not previously shown in the costing plans or aesthetic enhancement of walls, etc...
- Proactively coordinating any cost-to-cure items for which the property owner is responsible for handling specifically for those items that could affect the Design-Build contract. This may include, but is not limited to private utility relocations.

F. Utilities

- Conducting an internal “utility workshop” with utility owners at the same time GDOT provides the MOU’s would engage the utility owners early and allow for the project scope and schedule to be effectively communicated.
- The awarded Design-Build team is responsible for administering the contract, specific to the utilities section of Special Provision 999. GDOT should ensure that the appropriate persons from the District Utilities Office participate in each utility coordination meeting in order to help guide the Design-Build utility coordination process.
- In accordance with GDOT’s Utility Accommodation Policy and Standards Manual, utilities that are to remain under the pavement require a utility retention request submittal to GDOT. Obtaining this request early, preferable at preliminary plans, is important. Recommend Special Provision 999 ensure the Design-Build team is responsible for administering retention requests during the development of the preliminary plans.
- Any special considerations that are required by utility owners must be included in the MOU such as prequalified vendors, and insurance provisions. This information should be included in the RFP.

G. Design-Build Administration

- During the construction phase of the Design-Build contract, GDOT’s Office of Construction has full authority to instruct the awarded Design-Build team on what should be constructed in the case where the Released for Construction plans show something that is in error.
- Any verbal commitments made by the Locals during the course of the project must be clearly documented.
- Any adjacent construction site which fails to perform adequate erosion control should be documented by the awarded Design-Build team and GDOT. In addition, notification to the applicable local issuing authority is important.
- GDOT’s Office of Innovative Program Delivery’s participation in all construction status meetings is strongly encouraged.

12. Conclusion

On November 18, 2011, GDOT led a post construction evaluation meeting for this project. The meeting included representatives from various GDOT offices, FHWA GA Division and the awarded Design-Build team. By all accounts this project was a successful Design-Build project. The experience of the awarded Design-Build team who had performed previous Design-Build projects for GDOT, and who also had a well qualified Utility Worksite Utility Control Supervisor (WUCS) were some of the factors that contributed to the success of the project.