

PRELIMINARY DEPO NOTES

January 26, 2012

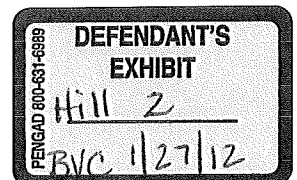
ARTHUR v ARCHER WESTERN; GEORGIA DOT; WILBUR SMITH; ELLIS

**ATTY: CHRIS CLARK
RETAINED: SEPT 2008**

**COURT: CRISP SUPERIOR
CASE NO.: 10V-260
09DV-0130**

DATA REVIEWED:

1. Wreck Report: December 21, 2007, Friday, 10:46 AM, Cloudy, Wet, Daylight. Occurred on SR 257, 8th Avenue, at intersection northbound on ramp to I-75 in City of Cordele, Crisp County. Wreck report was done by Kristan Herrick of the City of Cordele Police Department, checked by Police Chief Dwayne Orrick. No photographs were made of the vehicles or site.
2. Witnesses identified:
No witnesses were identified
3. Depositions Reviewed:
Aisha Ellis - Defendant, May 25, 2011
Michelle Arthur - Plaintiff, July 14, 2011
Andy Giddens - GDOT Const Project Mgr 2, Nov 21, 2011
Aubrey Whitten - Archer Western Senior Supt, Dec 14, 2011
Steven Nannini - Archer Western Senior Proj Mgr, Dec 14, 2011
George Pugh - Retired GDOT; Wilbur Smith Employee, Dec 15, 2011
Candice Dameron - Archer Western employee, Dec 21, 2011
Neil Tyson - GDOT, Const Project Mgr 2, Dec 22, 2011
4. Notes in File:
Copy of wreck report prepared by Officer Kristan Herrick, Cordele Police Department, Dec 21, 2007
Copy of dash cam video from Cordele Police car that responded to wreck
Color photos of wreck scene by Archer Western, 12/21/07 (10)
Color photos of wreck site by HH, 10/15/2008 (117)
Color photos of site by others (96)
Black/white photos of wreck site by Archer Western (11)
Color aerial photos of intersection(s) from Google (4)
Copy of computer generated area maps (3)
Copy of news article
Copy of nineteen (19) wreck reports from Cordele Police Dept
Copy of numerous project documents from GDOT
Copy of numerous project documents from Archer Western
Copy of digital set of the construction plans for the project
Copy of Traffic Control Inspection Reports
Copy of Post Construction Design Evaluation Report, May 5, 2011



Copy of Plaintiff's deposition exhibits 1, 2, 3 notebooks
Copy of Defendant's responses to plaintiff's Second and Third Requests to Produce to Plaintiffs including documents produced
Copy of the Project Contract between GDOT and Archer Western
Copy of the contract between GDOT and Wilbur Smith
Copy of Complaint with Herman Hill 9.1 Affidavit

5. General References:

- ◆ Policy On Geometric Design for Highways and Streets, AASHTO, 2001
- ◆ Manual on Uniform Traffic Control Devices, FHWA, 2003
- ◆ GDOT Standard Specifications, 2001 and Supplemental

OBSERVATIONS:

1. Georgia DOT awarded a construction project to Archer Western based on the June 16, 2006 bid letting for amount of \$145,793,085.95. That amount was through contract a supplemental agreement which was raised to \$160,413,085.47 at project conclusion. Scheduled completion date was Dec 31, 2009.
2. Georgia DOT developed plans for reconstruction of a 12.8 km (~8 miles) of I-75 from south of SR 300 interchange north to county road 361 and included construction of eight bridges and rehab of three, placement of an additional lane and median barrier on I-75, drainage improvements, change in on/off ramp geometry and other related work.
3. A preconstruction conference was held by GDOT on Aug 25, 2006 with the prime contractor, utility companies to review the proposed construction. The agenda notes staging requirements and traffic control were discussed.
4. Construction was authorized on August 8, 2006 and time charges began August 18, 2006. Aubrey Whiten was identified as the Project Superintendent, the WTCS and the WECS for the contract with his Barnesville, Ga address. Contractor stated work would begin Sept 1, 2006.
5. The contract between Archer Western and Georgia DOT required the contractor to make weekly traffic control inspections of the entire projects using a specific form supplied by GDOT. That is stated in Section 150.01 A.
6. When GDOT prepared the construction plans a schedule of construction Stages was included in the set of plans provided to all prospective bidders. The contract includes the opportunity for the contractor to make requests to change those stages.

7. Section 150 contains the provision that prior to any major traffic shifts or changes in traffic the contractor must provide a list of specific data to detail the exact work to be done, how it will be operated, detail drawing showing all traffic control devices as described in Sec 150.01 G.
8. No documents have been provided by any defendant concerning a request made to GDOT in the instructed manner to change any Stage or portion of a stage between Sept 1, 2006 and Oct 2007. The opportunity to make that request was available.
9. The proposed use of the existing on/off northbound ramps at SR 257 was not included in the design prepared by GDOT and given to proposed bidders
10. Section 150 outlines the requirements any person must meet to act as the WTCS for this Interstate project. Projects constructed on the Interstate are given the highest priority and specifications concerning traffic control due to volume, type, familiarity, night work, and other items.
11. The Special Provision Section 150 states in Sec 150.02 the prohibition of parking of contractor vehicles or employee vehicles within the work area. It states the WTCS is responsible to assure this does not happen.
12. Wilbur Smith Associates was employed by GDOT to provide as needed technical people for inspections and project manager duties. On this project there was a continuous assignment of these temporary personnel to handle certain duties of the project.
13. The contract documents identify the AASHTO Geometric Design Policy as applicable to all design plans and construction. The decision for how to arrange devices and hardware on the project as the project was built and traffic shifted was controlled by these sight distance requirements.
14. The discussion of sight distance is especially important in work zones since motorists are only able to alert to temporary situations based on what approach sight distance is provided to them. This element was especially important at this intersection.
15. The GDOT Section 150 and MUTCD provide details on what must be included on a traffic control plan. These instructions specify type signs, sign sizes, sign spacing, obstructions, marking required, intersection control, lighting, traffic signals and similar details are to be placed on a drawing which can be reviewed by engineers to make an informed decision on the plan.
16. The standard eye height used in determining sight distance is 3.5 feet per the 2003 MUTCD and the 2004 AASHTO Geometric Policy. Also the standard object height is 3.5 feet.

17. On Dec 21, 2007 a collision at the intersection of SR 257 and the NB on ramp involving a westbound 2001 Chevrolet Tahoe driven by Michelle Arthur and a northbound 1998 Buick Century driven by Aisha Ellis. The Tahoe was shoved into the barrier along east side of the bridge and the Buick was rotated counter-clockwise and came to rest facing westbound on SR 257.
18. Ms Ellis stated she was trying to look toward right as she approached the intersection and was inching out to try to see toward east. She said the construction and stuff blocked her view. She agreed the photo shows cars parked, what looks like some steel beams, and other items that blocked her view.

PRELIMINARY OPINIONS:

1. Archer Western failed to implement Stage 1 construction as designed, bid and required by the contract with GDOT executed in July 2006 for the east side of SR 257 bridge over I-75.

Support:

- Plans provided with bid package required new ramps completion before traffic shift to outside of old bridge
- Plans attached/referred in the contract with GDOT required new ramps before traffic shift
- Archer Western sent letter (10/26/07) stating that all Stage 1 work was finished and ready for move to Stage 2
- No written letter, agreement, change order, meeting minutes, diary notes, or any other means to define a contractual change has ever been produced
- Steven Nannini stated Archer Western did not follow the approved staging plans as of 10/26/07

2. Archer Western as prime contractors for project IMNHO-0075-01(156) Crisp failed to manage/maintain basic project records to allow an understanding of significant project events based upon the documents provided and the deposition testimony.

Support:

- Neither Archer Western or GDOT can provide a traffic control plan which actually documents the changes made to Stage 1 construction
- Neither can provide letters or other documents perhaps generated by Archer Western
- Archer Western cannot provide a copy of a plan which shows accurately where traffic control devices were to be placed when traffic changed from Stage 1
- Steven Nannini agreed traffic control plans were not submitted or implemented prior to Dec 21, 2007

3. Archer Western employees failed to understand the meaning of work area, work zone, etc and claimed no active work meant no work zone.

Support:

- 2003 MUTCD defines work zone from first TTC sign to last TTC sign
- 2003 MUTCD defines a TTC zone as any highway area where road user conditions are changed
- Aubrey Whitten stated the area in temporary median east of bridge was not a work zone
- Steven Nannini did make corrected testimony the whole area was a work zone, further away from Cordele than the bridge

4. Archer Western, GDOT and Wilbur Smith employees failed to understand, recognize or implement the critical necessity of a sight distance triangle for drivers within crossover attempting to move across path of westbound vehicles.

Support:

- Andy Giddens stated he had no training how to determine if sight distance impaired
- Mr Giddens stated he did not know what the term sight triangle meant
- George Pugh stated he never had any training on line of sight, never heard of sight triangle
- Also, Steven Nannini was unable to define a sight triangle nor how it is used
- Also evident in the accel/decel lanes on I-75 where motorists given very short length

5. Archer Western submitted name of Aubrey Whitten as their WTCS when they knew he did not meet the requirements for a qualified work zone traffic control supervisor to Georgia DOT as required by the contract in Section 150.

Support:

- Special Provision 150 requires a WTCS to be within 45 minutes of the project at all times
- Mr Whitten lived in Barnesville, a distance of at least 90 miles, avg 120 mph
- Section 150 specifies only one person designated as WTCS, not a group
- Archer Western required to know and obey all contract provisions
- Inspector does not have authority to change contract requirements, Sec 105.10
- Project manager does not have authority to change contract requirements, Sec 105.09

6. Archer Western failed to install the correct traffic control at the intersection of crossover and westbound vehicles on SR 257 as required by the Contract, MUTCD and acceptable temporary traffic control.

Support:

- Archer Western employees agreed safety is the top priority for the contractor
- Section 107.07, 107.09, 150.02 (I) prohibits contractor vehicles parked in work area
- 2003 MUTCD provides that basic safety principles should also govern design of TTC zones
- In TTC zones 2003 MUTCD provides that road user and worker safety and accessibility should be part of every project
- Crossover must have Yield or Stop sign and include a line indicating where driver should stop to see oncoming westbound vehicles
- No line of sight examination was done to assure drivers had opportunity to see oncoming cars
- Median width >30 ft, MUTCD requires separate traffic control at WB SR 257 intersection
- Westbound motorists should have better striping/signing for a clear understanding of what vehicle position is expected

7. Archer Western violated the GDOT contract by failing to monitor the wreck history at the intersection on east side of bridge.

Support:

- WTCS is required to inspect the project weekly and more often is expected
- Although the Arthur wreck occurred early in this stage, testimony is clear that contractor traffic control employees were not oriented to inspections or monitoring
- WTCS does not need to be a trained wreck investigator - just have eyes open to evidence
- Cordele Police were an asset since this project was primarily within the City or nearby

8. Archer Western, GDOT and Wilbur Smith failed to keep the center median area on SR 257 east of the bridge clear of stored materials, trucks, cars, equipment, and other project related items in violation of the contract.

Support:

- Section 150.02 (I) clearly prohibits parking of contractor/personal vehicles adjacent to traffic
- Employees notice the median area being used by vehicles/equipment but no one acted
- Combination of barrier wall, pickup trucks, equipment caused a sight restriction for drivers looking toward east at the intersection
- Concrete barrier wall extended to the intersection in violation of the plan supposedly submitted to GDOT for approval

9. Archer Western failed to place/maintain correct pavement markings at intersection on east side of bridge which deprived motorists of needed information on correct location to stop. GDOT and Wilbur Smith failed to inspect and enforce.

Support:

- Intersection on wreck date had no markings, no signing
- Marking is significant at an intersection particular in a work zone where more distractions, disruptions to normal traffic flow is present
- Contractor did not submit a traffic control plan to GDOT ever
- A drawing the Contractor describes as a traffic control plan is nothing more than a traffic flow diagram at best

10. Archer Western chose to not comply with the GDOT contract when its WTCS did not make weekly inspections of the project with results shown on a written inspection report and delivered to GDOT as required.

Support:

- Archer Western employees agreed weekly organized work zone inspections were not done
- Archer Western employees agreed also that no inspection they did was documented in writing nor was it done on GDOT form nor was it delivered to GDOT
- This omission is a contract management disaster since it shows the contractor had not informed himself of the contract
- Or, the contractor deliberately made decision not to make the weekly inspections and thus violate the contract
- No inspector or construction project manager can approve this contract change

11. Archer Western advised GDOT of intentions to make a Stage 2 Traffic Shift, GDOT denied it; Contractor returned a proposal to GDOT stating all Stage 1 work was completed which was incorrect.

Support:

- First letter dated Oct 19, 2007 beginning, "this letter will serve as notice"
- GDOT reply dated Oct 23, 2007 with notation in first 3 sentences that proposal did not comply with approved stage plans since new ramps were not constructed
- Contractor replied (Steve Nannini) Oct 26, 2007 with statement, "Archer Western has followed the approved staging plans with exception to jacking Bridge 6 and asphalt leveling leading up to the bridge."
- On Nov 6, 2007 Nannini states he has responded to all GDOT comments, the traffic shift will increase traveling public safety, will provide increased sight distance from current conditions

- He followed that by saying the traffic shift is now scheduled for Nov 13, 2007
- Archer Western did not write factually by stating they had complied with staging plans
- Archer Western did not write factually by stating the shift would improve safety

12. Archer Western violated the contract provisions by failing to complete the construction of the northbound on/off ramps of I-75 as designated by the GDOT design team within Stage 1 without any verbal or written approval of GDOT.

Support:

- Stage 1 description of work for SR 257 (Bridge 6) is shown on sheets 208, 252-254, 260-263
- Sec 150.01 (G) describes staging plans and method for contractor to modify if approved
- Contractor never went forward with new ramp construction on schedule required, then described recovery as better than planned by design team to justify poor project management
- Never any written GDOT approval to vary from the Stage 1 sequence
- Sec 108.03 specifies the contractor is to guarantee the completion of project in accordance with plans and specifications within the time specified in proposal

13. Archer Western failed to provide a safe work zone by not considering the loss of sight distance for traffic crossing westbound SR 257 and implementing a traffic control plan that would assure motorists ability to view oncoming vehicles.

Support:

- Sight distance triangle never calculated for the intersection to identify placement of barrier wall and prohibit usage of the median area for any vehicle or for storage
- Sections 107.07, 107.09, 108.04 describe contractor duty to provide a safe environment for traffic moving through the work zone

14. Georgia DOT and Wilbur Smith employees confirmed on depositions their responsibility to inspect work zones and impact of construction on safety of motorists, however agreed they did not comply with responsibilities.

Support:

- No calculation of proposed sight distance under plan to continue use of existing ramps
- Not trained to even know to evaluate sight distance based on construction activities
- A motivated staff of inspectors and project managers could have made difference to challenge some theories of contractor

15. Each of the defendants have a standard to measure their work and provide each with definitive statements for making this a successful project

Support:

- Standard for Archer Western is the Contract
- Standard for Wilbur Smith is the Contract
- Standard for GDOT is the Contract, it has total authority

16. Each defendant demonstrated a lack of understanding for traffic operations and safety on projects that are built under traffic, the contract is not just about getting the pay items completed, the public using the facility must be made safe.

Support:

- Archer Western did not implement the traffic control suggested by Oct 26th letter
- Barrier wall along westbound SR 257 is shown on diagram as stopped 160 ft from center of existing on-ramp intersection

- In addition, the wall had attached reflective paddles which blocked driver view at stopping point created a solid fence effect; added an additional 9 inches to wall height, total 41 inches
- Barrier wall was actually installed to the intersection: an incredible lack of management, inspection and understanding of impact on sight distance
- Sight distance was reduced by 60% with this ingenious decision
- Calculation of sight distance triangle

17. What should have been done to provide a safe traveling area for SR 257 motorists -

- Assure contractor understands what the staging plan dictates and requires
- Assure contractor is on schedule to open the new ramps by regular review of work done
- Require contractor to present a real traffic control plan - not a doctored plan sheet
- Require contractor to provide written sight line calculations proving what drivers could see
- Prevented median area from being used in any way
- Assure contractor understands that drivers crossing westbound SR 257 MUST be able to see and no tolerance for any deviations
- Place a stop bar or yield bar at intersection to provide a visual reference point for drivers
- Erect oversize stop or yield sign for motorists crossing westbound SR 257 lane
- Ensure contractor furnishes a completed weekly written inspection on a form provided by GDOT to Office by 12 Noon on Friday
- Include within that inspection form specific items to check at SR 257 and at other bridges on project
- Use small height car to personally check the intersection before any public vehicle is allowed on the intersection

18. Based on the evidence of this case, the investigation completed by the police, the depositions and documents provided and my investigation it is my opinion this collision on December 21, 2007 was caused by the failures of the defendants Archer Western, Georgia DOT and Wilbur Smith Associates.

The data, observations and opinions listed here are based upon the information reviewed at this time and are made within a reasonable degree of engineering probability and are the product of reliable principles and methods and, in arriving at said opinions and conclusions, I have applied the principles and methods in a reliable and scientific manner and have used methodology commonly accepted and employed in the fields of traffic engineering; any additional material made available for review in the future may modify these findings.

Herman Hill, PE