



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

May 14, 2013

**Addendum No. 1**

RE: Contract ID C203153

WBS # 45437.3.1

F. A. # CMS-0918(89)

**Forsyth County (C-5224A)**

Winston Salem- Upgrade and Expansion Of Computerized Signal System

**May 21, 2013 Letting**

To Whom It May Concern:

Reference is made to the proposal form furnished to you on this project.

On Page No. 262 a bullet concerning redundant server has been removed in "Subsection 32.2 Materials (A) ITS Servers (1) Functional". Please void Page No. 262 in your proposal and staple the revised Page No. 262 thereto.

Sincerely,

A handwritten signature in black ink, appearing to read "R. A. Garris".

R. A. Garris, PE  
Contract Officer

RAG/jag  
Attachment

cc: Mr. Ron Hancock, PE  
Mr. Pat Ivey, PE  
Ms. D. M. Barbour, PE  
Mr. J. V. Barbour, PE  
Mr. R.E. Davenport, PE  
Mr. Greg Fuller, PE  
Project File (2)

Mr. Ray Arnold, PE  
Ms. Natalie Roskam, PE  
Mr. Ronnie Higgins  
Mr. Larry Strickland  
Ms. Marsha Sample  
Ms. Lori Strickland

## C-5224A – Winston-Salem Signal System – Phase A

**(F) Existing Equipment**

Remove all existing computer equipment from the TMC and Bryce Stuart Building as shown in the Plans.

**32.2. MATERIALS****(A) ITS Servers****(1) Functional**

The ITS servers shall integrate the workstations with other ITS systems and shall enable video and data accessibility and exchange between various systems. The servers shall function in automated fashion in unmanned mode supporting clients' control functions via ASN.1 and/or XML-defined protocols over TCP/IP. Provide the servers capable of operating in the following configurations:

- Single server configuration (environments with n\*10 controlled objects).
- Multiple server configuration (environments with n\*100 controlled objects).
- Thin server configuration (active control of local part in case of larger system).

Provide ITS servers meeting the following functional requirements:

- Handle commands from system clients via ASN.1 and/or XML defined protocol over standard TCP/IP connection.
- Command underlying nodes (devices such as encoders, video servers).
- Report status of system nodes and alarms.
- Monitor system nodes connections.
- Store recent alarms in internal database.
- Receive Simple Network Management Protocol (SNMP) traps generated by network infrastructure, translate SNMP traps as system alarms, and send alarms as SNMP traps.
- Support remote configuration and diagnostics.
- Restore video and connections in case of system component restarts.
- Support protocols: TCP, UDP, NTP and IP Multicast IGMP.

**(2) Performance**

Provide ITS application and backup servers meeting the following minimum requirements:

- Processor: Dual quad core Intel Xeon L5620 or better at 2.8 GHz or greater, 12 MB cache processor, Turbo, L2 cache at 1333 MHz,
- Memory: Minimum 8 GB single-ranked UDIMMS for two processors at 1333 MHz,
- Backplane: 1x6 backplane for 3.5 inch drives,
- Power Supply: Redundant power supplies with separate cords,
- Riser: Riser with two PICE x 8 and two PICE x slots
- Drive Controller: PERC6i SAS RAID 5 with PCIe 256 MB cache,
- Hard Drives: RAID 6 with 4x300 GB, 15k RPM serial SCSI drives, 3 Gbps, 3.5 inch, Hotplug,