



ADDENDUM #1:

DATE: November 25, 2009

JOB: Lillington Community Center
Architect Project No. 0802

OWNER: Town of Lillington

ARCHITECT: Gordon Johnson Architecture

The following items or modifications to the original Plans and Specifications shall be included as part of the contract work. All General Conditions, Supplemental General Conditions, or Special Conditions shall remain as originally specified unless otherwise noted herein.

Respective Bidders shall include the provisions of this Addendum in their proposal and shall make a notation in the proposal that these provisions have been included.

GENERAL

- 1) A Pre-bid meeting was held on November 10, 2009 in the Commissioners Room at the Harnett County Offices Building, where representatives of the Town of Lillington, the design team, and contractors interested in bidding the project were in attendance. They include the following attendees: José Franco of Marbella Contractors, Denton Wall or Norstate Contracting, Art Hecke of Player, Froylan Plasola of Bradley Built, Bret Reece of RLT, Jeff Futrell of HBS Contractors, Steve Kurdian of Shaw Construction, Gordon Johnson of Gordon Johnson Architecture, Henry Hayes of Hayes, Inc., Del Crawford of Crawford Design Company, Tracey King of Vortec Construction Co., Greg Sowell of McKenna Construction, David Brown of Brown's Masonry, Thomas McRae of EST General Contractors, and Josh Price of Daniels & Daniels Construction. The Architect reviewed the bidding requirements which included contractors submitting the appropriate bid forms and compliance statements with their bids. A bid, payment, and performance bond will be required for this project. All of the site work shown on the drawings and as specified should be included in the base bid. All other information discussed in the

meeting that required a change to the construction documents will be noted in this addendum.

- 2) Please replace the front page of the bid form with the attached revised document indicating new alternates noted in this addendum.
- 3) There shall be only one project sign required where mentioned in the Supplemental General Conditions SGC.20.

SPECIFICATIONS

- 1) Section 01020 – Allowances: Please add a brick allowance of \$400/1,000 units for all colors noted. Also add an allowance of \$2.50/water table stretcher course brick unit and \$9.00/water table corner unit.
- 2) Section 01230 – Alternates: Add alternates M1, E1, and E2 noted in the plumbing, mechanical, and electrical addendum that follows.
- 3) Section 01500 – Temporary Facilities & Controls: Delete items 1.4.B and 1.4.C.
- 4) Section 02300 – Earthwork: Change page numbers to indicate 02300 (not 02200). All other 02xxx sections should reference this section number in lieu of 02200.
- 5) Section 04800 – Unit Masonry: Change all normal weight concrete block to light weight 1,900 psi block. All face brick shall be oversize engineer size units unless otherwise noted.
- 6) Section 06150/06180 – Delete all requirements related to FSC wood certifications and LEED.

ARCHITECTURAL DRAWINGS

- 1) Sheet TS1: Change the phone number for the Owner's contact Mr. Tommy Burns to 910-893-2654.
- 2) Sheet A1.1: Provide two (total) electric projection screens as specified. Each screen will be recessed in the ceiling in the bay window space of Room 102 and Room 108. Provide necessary power and switch controls.
- 3) Sheet A1.2: Move the two handicap toilets in the stalls as shown on bulletin drawing AB1 (attached).
- 4) Sheet A3.1: Delete all references to the brick water table brick and 4" cmu back-up at detail 3/A3.1. Refer to the exterior elevations for the extent of the water table detail. Also delete the brick color and soldier course "note" on this same detail.
- 5) Sheet A5.1: See bulletin drawing AB2 for details on roof leader and drain requirements. The General Contractor's roofer shall provide and install the roof drains as part of his roofing system. The Plumbing Contractor shall install all other roof leader components.
- 6) Sheet A5.1: All flashing valleys and wall steps at the roof shingles areas shall be 16 ounce copper. All pre-finished aluminum gutter and downspouts shall be 0.050 inch thickness or greater. All shingle roof eave drip edge flashing shall be galvanized as stated on the plans.

CIVIL (See attached BD1.0 – BD1.4)

- 1) Remove and demolish the concrete tower structure and associated items as shown on the existing conditions survey. This feature is indicated as a large square below the text referencing 21.73 acres.
- 2) Install heavy duty pavement according to the detail provided.
- 3) Install the identity signage according to the detail provided.

PLUMBING, MECHANICAL, & ELECTRICAL

HVAC:

1. Under the base bid, main equipment by Trane, Carrier, McQuay, and Addison will be acceptable. Under Alternate M-1, the contractor shall state in the bid form an amount to be added to the base bid for a single source of Trane for the main HVAC equipment.
2. Under the base bid, main equipment by Trane, Carrier, McQuay, and Addison will be acceptable. Under Alternate M-1, the contractor shall state in the bid form an amount to be added to the base bid for a single source of Trane for the main HVAC equipment.
3. Sheet M1; Reference Coded Note Three: Two relief dampers are shown for A/C-1; This unit shall be provided with only one relief damper located in the main return air duct (duct sizes shall be 24/16. Further, A/C-6 shall be provided with one relief damper located in the 14/12 return duct.
4. The controls shall be as follows:

CONTROL SYSTEM DESCRIPTION

The control system shall consist of a network of communicating HVAC equipment controllers and communicating input/output modules to monitor and control a full array of ancillary (both analog and binary) devices and sensors. The system shall have independent stand-alone capabilities. All independent devices in the system network shall be viewable and editable from a central system panel or from a computer communicating either directly or remotely with the central system panel. All independent equipment and input/output modules shall reside on the LonTalk FTT-10A network, and provide data using LonMark® standard network variable types and configuration properties. The system panel shall be equipped with a pre-tested factory installed internal modem. The control system shall be designed such that each mechanical system will be able to operate under stand-alone control. As such, in the event of a network communication failure, or the loss of any other controller, the control system shall continue to independently operate under control.

GENERAL FUNCTIONS

- A. The microprocessor based control system panel shall provide the following control for each zone and for all connected loads and HVAC equipment.
 - 1. Time-of-Day Scheduling utilizing a 365-day clock
 - 2. Occupied and Unoccupied Temperature Control Setpoints
 - 3. Timed Override
 - 4. Time and date
 - 5. Alarm Log
 - 6. Security
 - 7. Remote monitoring via dial in modem and/or Ethernet network
 - 8. User interface & Display – touch screen
 - 9. Communicate to equipment via an open industry standard protocol

BUILDING CONTROL PANEL

- A. The control system shall consist of a system panel with graphical interactive touch screen display. All standard setup and daily operator functions shall be available through the touch screen display. The installer shall be able to install, configure, and commission the entire system to operate on a schedule and to specific setpoints without the use of a personal computer. A single red flashing LED for indicating alarm conditions shall be displayed at the panel. A single green LED indicating normal operation shall be displayed at the panel.
 - 1. Upon system panel power-up, all connected units, auxiliary loads, outdoor air sensor, and/or zone dampers shall automatically identify themselves over the communication link.

BUILDING PANEL OPERATING SYSTEM

- A. Software Integrity - All schedules and setpoints shall be resident in EEPROM along with the clock function. If battery backup is required to maintain software or the system clock as described above, this contractor shall provide battery maintenance for five years from date of project acceptance; costs to be included in this bid.
- B. The touch screen display shall prompt the infrequent user for alarms, schedules, viewing equipment or zones, initiating timed overrides, and setup. Once a prompt has been selected the operators interface shall provide adjustment of:
 - 1. The system time and date
 - 2. Heating and cooling, occupied and unoccupied setpoints for each zone or constant volume unit
 - 3. Changing and copying schedules for each unit or zone, or load
 - 4. Viewing alarms
 - 5. Monitoring temperatures, operating modes, on/off statuses and failure conditions
 - 6. Holiday and Exception dates

7. Units of temperature
8. Daylight Savings Time
9. Optimal Start

- C. Time-of-Day Scheduling – Each schedule shall have a minimum of two on and two off events per day. A minimum of ten schedules shall be available in the system. All HVAC units and control outputs shall be available for assignment to any schedule. The panel shall be capable of optimally starting (achieving desired conditions at precise time of occupancy) the HVAC units based on individual unit recovery ramps.

Time-of-Day scheduling shall be continuous, such that if power is lost, on power-up the panel will look back for each device to see whether it should be on/off or in occupied/unoccupied temperature setpoints. If necessary, the software will look back at the previous day's schedules to determine the desired state of each device/zone.

- D. Holiday and Exception Schedules – Through the central panel or computer there shall be a minimum of twenty (20) defined Holiday or Exception dates.
- E. Alarm Log - The last 64 alarms shall be maintained for review at the building control panel display or connected computer. The panel shall have the capability to call out on the modem to a pager and deliver the alarm or event.
- F. Optimum Start - The software shall determine the optimum time to turn on the rooftop equipment based upon the previous day's recovery ramp. The software shall store this data and make daily corrections to the degrees/hour ramp.
- G. Timed Override - Each scheduled device shall be able to be overridden at the system control panel to the occupied mode for up to four hours. The override shall also be cancelable from the control panel at any time during the override.
- H. Daylight Savings Time - The system panel software shall automatically update time according to daylight savings at the legislated time and date and reset time at the end of the daylight savings period. This function shall be able to be disabled.

In addition, if the legislative dates for the start and stop of daylight savings time should be changed, the system panel shall be editable to calculate the new dates based on day-of-the-month, week-in-the-month and the month and then automatically resume the new daylight savings parameters.

- I. Temperature Units - All temperature inputs connected directly to the control panel or communicating over the communications link shall be able to display temperature inputs in degrees Fahrenheit or in degrees Centigrade, selectable from the front keypad.
- J. LAN Connectivity – The system panel shall be provided with a standard Ethernet LAN connection. The connection shall support both DHCP and Static IP connections.

- K. Default Security - Upon initial start up the factory default security level shall secure the building control panel from each of the following local capabilities: changing time and date, changing setpoints, changing schedules, and initiating timed override. The security password shall be provided in the installation manual.
- L. Expansion - The ability to add additional HVAC units to the system without any additional hardware.
- M. Modem - A modem shall be provided to allow for complete dial-in access. It shall be possible to retrieve and save a system panel's database and to download that database from a remote location over standard telephone lines.
- N. The integral modem shall also enable auto-dial out of alarms including equipment failures and temperatures out-of-range for automatic annunciation and logging at a remote location or pager.
- O. Critical alarms - The operator shall be able to designate certain alarms as critical. Any critical alarm can be setup to dial-out to a remote location, while a non-critical alarm will not initiate a dial-out.
- P. Security – Multi-level (Daily Operator and System Supervisor) security must allow or deny editing access to various supervisor-designated parts of the system. Security shall protect editing of the system features available on the touch screen display as well as through the computer interface. Security shall not prevent “viewing” any display screen regardless of assigned security level.
- Q. Trending capabilities – 15 unique trends with up to 64 samples per trend.
- R. Reporting capabilities – Energy reporting displaying Daily, weekly and yearly totaled energy (kWh) usage, and peak (kW, time stamped).

COMPUTER SOFTWARE

- A. Provide computer software to allow the user complete access to the control panel by using a PC serial or Ethernet card port and connecting via a jumper cable to a built on PC port on the control panel. The software shall also allow the user complete access to the control panel by using the modem on a PC to communicate with the modem on the control panel.
- B. System Graphics. The Operator Workstation software shall be graphically oriented. Provide a method for the operator to easily move between graphic displays.
- C. System Applications. Each workstation shall provide operator interface and off-line storage of system information. Provide the following applications at each workstation.

1. Manual Database Save and Restore. A system operator with the proper password clearance shall be able to archive the database from any system panel and store. The operator shall also be able to clear a panel database and manually initiate a download of a specified database to any panel in the system.
2. System Configuration. The workstation software shall provide a graphical method of configuring the system.
3. On-line Help. Provide on line help system to assist the operator in operation and editing of the system. On line help shall be available for all applications.
4. Security. System security shall be selectable for two classes of operators. The system supervisor shall have the ability to set passwords and security levels for all applications and editable screens. The operator password shall be able to restrict the operators' access for changing system application, full screen editor, and objects. Each operator shall automatically be logged off of the system if no keyboard or mouse activity is detected. All system security data shall be stored in an encrypted format.
5. System Diagnostics. The system shall automatically monitor the operation of all network connections, building management panels, and controllers. The failure of any device shall be annunciated to the operator.
6. Alarm Processing. Any object in the system shall be configurable to alarm in and out of normal state. The operator shall be able to configure the alarm limits, warning limits, states, and reactions for each object in the system.

ELECTRICAL:

1. Under the base bid, lighting products represented by TEAM Durham, K.B. Stevens, or Allstate Lighting will be acceptable. Under Alternate E-1, the contractor shall state in the bid form an amount to be added to the base bid for single source of TEAM Durham represented equipment.
2. Under the base bid fire alarm systems by Simplex and Edwards will be acceptable. Under Alternate E-2, the contractor shall state in the bid form an amount to be added to the base bid for single source of Simplex.

End of Addendum #1