SECTION 275223 **-** NURSE CALL SYSTEM

1. GENERAL
	* + 1. SYSTEM DESCRIPTION
				1. The nurse call system operates as separate independent systems for each ward. Each independent system shall operate as a zoned nurse call and intercom system. A nurse at each master station monitors the status of various signal initiating devices (staff stations, patient stations, emergency stations and duty stations) that are located within the respective ward. Each signal initiating device operates as a separate zone.
				2. Signal Initiation: A call is placed from a signal initiating device to the master station as follow:

Patient Stations and Staff Stations: A “Normal” call is placed by depressing the call button. A call assurance light illuminates in the station indicating the call has been placed. The call may be cancelled from the originating station or from the master station.

Emergency Stations: An “Emergency” call is placed by depressing the large red vinyl push-button. A call assurance light illuminates in the station indicating the call has been placed. Cancellation must be made from the originating station.

Duty Stations: A “Normal” call is placed by depressing the call button. A call assurance light illuminates in the station indicating the call has been placed. The call may be cancelled from the originating station or from the master station.

* + - * 1. Upon actuation of signal initiating devices:

A zone light illuminates and a tone sounds at the respective master station indicating the type of call (“Normal” or “Emergency”) and showing the room number from which the call was placed.

The corridor light over the door from which the call originated illuminates. Light is on steadily for “Normal” calls and flashes for “Emergency” calls.

An “incoming call” light illuminates and a tone sounds at the respective duty station indicating the type of call (“Normal” or “Emergency”) that has been placed. A silence switch in each duty station allows personnel to silence the tone. If calls are being answered by the master station, a “busy” light is illuminated.

The nurse at the master station answers the call by depressing the illuminated pushbutton in the master station.

Two way communication is established between the calling station and the master station.

A red privacy light illuminates in the calling station indicating that activity in the room can be heard.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
				5. Submittals Package: Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package.
				6. Shop Drawings:

Composite wiring and/or schematic diagrams of the complete system as proposed to be installed (standard diagrams will not be acceptable).

* + - * 1. Product Data:

Catalog sheets, specifications and installation instructions.

Bill of materials.

Detailed description of system operation (format similar to SYSTEM DESCRIPTION).

Name, address and telephone number of nearest fully equipped service organization.

* + - * 1. Quality Control Submittals:

Company Field Advisor Data: Include:

Name, business address and telephone number of company Field Advisor secured for the required services.

Certified statement from the Company listing the qualifications of the Company Field Advisor.

Services and each product for which authorization is given by the company, listed specifically for this project.

* + - * 1. Contract Closeout Submittals:

System acceptance test report.

Certificate: Affidavit, signed by the Company Field Advisor and notarized, certifying that the system meets the contract requirements and is operating properly.

Operation and Maintenance Data:

Deliver 2 copies, covering the installed products, to the Director’s Representative. Include:

Operation and maintenance data for each product.

Completed point to point wiring diagrams of entire system as installed.

Number all conductors and show all terminations and splices. (Numbers shall correspond to numbered tags installed on each conductor).

Name, address, and telephone number of nearest fully equipped service organization.

* + - 1. QUALITY ASSURANCE
				1. Equipment Qualifications For Products Other Than Those Specified:

At the time of submission provide written notice to the Director of the intent to propose an “or equal” for products other than those specified. Make the “or equal” submission in a timely manner to allow the Director sufficient time to review the proposed product, perform inspections and witness test demonstrations.

If products other than those specified are proposed for use furnish the name, address, and telephone numbers of at least 5 comparable installations that can prove the proposed products have performed satisfactorily for 3 years. Certify in writing that the owners of the 5 comparable installations will allow inspection of their installation by the Director's Representative and the Company Field Advisor.

Make arrangements with the owners of 2 installations (selected by the Director) for inspection of the installations by the Director's Representative. Also obtain the services of the Company Field Advisor for the proposed products to be present. Notify the Director a minimum of 3 weeks prior to the availability of the installations for the inspection, and provide at least one alternative date for each inspection.

Only references from the actual owner or owner’s representative (Security Supervisor, Maintenance Supervisor, etc.) will be accepted. References from dealers, system installers or others, who are not the actual owners of the proposed products, are not acceptable.

Verify the accuracy of all references submitted prior to submission and certify in writing that the accuracy of the information has been confirmed.

The product manufacturer shall have test facilities available that can demonstrate that the proposed products meet the contract requirements.

Make arrangements with the test facility for the Director's Representative to witness test demonstrations. Also obtain the services of the Company Field Advisor for the proposed product to be present at the test facility. Notify the Director a minimum of 3 weeks prior to the availability of the test facility, and provide at least one alternative date for the testing.

Provide written certification from the manufacturer that the proposed products are compatible for use with all other equipment proposed for use for this system and meet all contract requirements.

* + - * 1. Test Facility: The company producing the system shall have test facilities available that can demonstrate that the proposed system meets contract requirements.
				2. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 12 working hours for the following:

Edit number of hours to suit.

Render advice regarding installation and final adjustment of the system.

Render advice on the suitability of each signal initiating device for its particular application.

Witness final system test and then certify with an affidavit that the system is installed in accordance with the contract documents and is operating properly.

Train facility personnel on the operation and maintenance of the system (minimum of two 2 hour sessions).

Edit number of sessions and hours to suit.

Explain available service programs to facility supervisory personnel for their consideration.

* + - 1. MAINTENANCE
				1. Service Availability: A fully equipped service organization capable of guaranteeing response time within 24 hours to service calls shall be available to service the completed Work.
				2. Spare Parts:

50 percent spare of each type fuse.

30 percent spare of each type lamp (except LED type).

10 percent spare of each type signal initiating device.

10 percent spare of each item requiring replacement for operation and routine maintenance of system.

15 spare call cords for patient stations.

5 spare switch plugs for patient stations.

Adjust quantity of spare parts to suit.

1. PRODUCTS
	* + 1. CENTRAL EQUIPMENT
				1. Dukane Corp.’s Model 12A880 Central Equipment and Termination Cabinet with:

Backbox for surface mounting equipment.

130 station capacity.

Dukane Corp.’s Model 17A355A 24V dc Power Supply.

* + - 1. MASTER STATIONS
				1. Dukane Corp.’s Model 4A2010-40 Desktop Type Master Station with:

Minimum of 30 pushbuttons.

* + - 1. SIGNAL INITIATING DEVICES
				1. Staff Stations: Dukane Corp.’s Model 4A1230 Staff/Solarium Station with:

Backbox for surface mounting.

* + - * 1. Patient Stations: Dukane Corp.’s Model 4A1225 Patient Station with:

Dukane Corp.’s Model 200-352 call cord or Dukane Corp.’s Model 570-130 switch plug as indicated on the drawings.

Backbox for surface mounting.

* + - * 1. Duty Stations: Dukane Corp.’s Model 4A1295 Duty Station with:

Backbox for surface mounting.

* + - * 1. Emergency Stations: Dukane Corp.’s Lavatory/Emergency Station similar to Model 9A1410 with:

Backbox for surface mounting.

Speaker/Microphone.

* + - 1. CORRIDOR LIGHTS
				1. Single Corridor Light: Dukane Corp.’s Model 18A211 with:

White dome lens.

Backbox for surface mounting.

* + - * 1. Dual Corridor Light: Dukane Corp.’s Model 18A212 with:

Two segment dome lens with green and blue segments.

Backbox for surface mounting.

* + - * 1. Triple Corridor Light: Dukane Corp.’s Model 18A213 with:

Three segment dome lens with green, red and blue segments.

* + - * 1. Quadruple Corridor Light: Dukane Corp.’s Model 18A214 with:

Four segment dome lens with green, red, blue and amber segments.

* + - 1. WIRING
				1. Insulated conductors shall meet requirements of Section 260519 and the following:

Signal Initiating Circuits: Minimum No. 14 AWG type RHW, THW, XHHW, THWN or THHN.

Wiring shall be shielded or unshielded as recommended by system manufacturer.

Number of conductors and conductor size as recommended by system manufacturer, except that conductor size shall not be less than previously specified.

1. EXECUTION
	* + 1. INSTALLATION
				1. Install system in accordance with the Company’s printed instructions unless otherwise indicated.
				2. Labeling:

Use markers to identify conductors at terminal strips, cabinets, and junction boxes (designations shall correspond with point to point wiring diagrams).

Install nameplate with station designation on each station.

* + - 1. FIELD QUALITY CONTROL
				1. Preliminary System Test:

Preparation: Have the Company Field Advisor adjust the completed system and then operate it long enough to assure that it is performing properly.

Run a preliminary test for the purpose of:

Determining whether the system is in a suitable condition to conduct an acceptance test.

Checking and adjusting equipment.

Training facility personnel.

* + - * 1. System Acceptance Test:

Preparation: Notify the Director’s Representative at least three working days prior to the test so arrangements can be made to have a Facility Representative witness the test.

Make the following tests:

Individually test signal initiating devices.

Test corridor lights.

Test each system function step by step as summarized under SYSTEM DESCRIPTION.

Supply all equipment necessary for system adjustment and testing.

Submit written report of test results signed by Company Field Advisor and the Director’s Representative. Mount a copy of the final report in a plexiglass enclosed frame assembly adjacent to the control equipment.

END OF SECTION 275223