SECTION 275111 **-** INTERCOM SYSTEM

This section covers a single conversation channel system written specifically for control buildings (guard towers) on correction department projects.

1. GENERAL
   * + 1. SYSTEM DESCRIPTION
          1. The system shall operate as a zoned, single conversation channel intercom system.
          2. A person at a master station may page each substation separately by pressing a selector switch, then depressing a talk button allowing the person to deliver a verbal message to the selected station. Master station is equipped with a handset to allow private conversation with the selected station.

The person may also call the selected station by a tone signal.

* + - * 1. A person at the activated station replies to the call without having to perform any functions (hands free reply). Exception: Stations with privacy switch require the switch to be released for reply. Privacy switch prevents sounds or conversations from being transmitted to other stations (eavesdropping prevention).

Include the 2nd sentence in paragraph below only when multiple master stations are tied to the sames substation.

* + - * 1. A person at a sub-station may initiate a call and communicate with a person at the master station by pressing a call button located on the substation. An indication is given if the line is busy. The call is announced on master station by tone and lamp annunciation. A person at the master station presses a talk button to reply and releases it to listen to the person at the sub-station.
      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. Submittal 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 accepted).

* + - * 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:

Test Report: 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 two copies, covering the installed products, to the Director’s Representative. Include name, address and telephone number of the 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 which 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 4 working hours for the following:

Render advice regarding installation and final adjustment of the system.

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 1/2 hour sessions).

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

* + - 1. MAINTENANCE
         1. Service Availability: A fully equipped service organization shall be available to service the completed Work.

1. PRODUCTS
   * + 1. INTERCOM SYSTEM
          1. Master Station: Dukane Corp.’s 4A876B, having:

Minimum of 10 zones.

Phenolic name plates to identify each zone switch.

Accessories as required to perform functions listed in SYSTEM DESCRIPTION.

* + - * 1. Substations: Equip substations with line matching transformer for operation on a 25 volt balanced speaker line:

Type A: Flush wall mounted type with privacy switch; Dukane Corp.’s 4A1460.

Type B: Dukane Corp.’s 4A160 with privacy switch, mounted in a wood desk top console; Hammond Mfg.’s 1456 Series.

Type C: Atlas Sound’s VTF Series weatherproof speaker, 6 x 6 inches semi-flush wall plate and recessed backbox, gasketed where installed in exterior locations. Exterior fasteners vandal resistant stainless steel.

Type D: Atlas Sound’s VTF Series weatherproof speaker, having:

Semi-flush 6 x 6 inch wall plate and gasket.

OZ Gedney Co.’s Type YL hot dipped galvanized cast iron enclosure, 8 x 8 x 4 inches.

Call in switch; Square D Co.’s Class 9001 Series Type K heavy duty oil tight/watertight pushbutton and contact block.

Phenolic legend plate stating “Push to Call”. Rivet legend plate to enclosure.

External fasteners vandal resistant stainless steel.

Type E: Surface mounted with call in switch; Dukane Corp.’s 4A1472.

* + - 1. WIRING
         1. Conductors: Number of conductors, size and type as recommended by the Company producing the system.

Wiring installed in underground raceways shall be UL listed suitable for underground.

1. EXECUTION
   * + 1. INSTALLATION
          1. Install system in accordance with the Company’s printed instructions unless otherwise indicated.
       2. 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 master station and each sub-station.

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.

END OF SECTION 275111