SECTION 275114 **-** TELEPHONE INTERCOM AND PAGING SYSTEM

This section covers a telephone type intercom system with zoned speaker paging. This system has an automatic exchange for station calling by dialing. This system would be suited to a large building where a flexible intercom/paging system is required.

1. GENERAL
	* + 1. SYSTEM DESCRIPTION
				1. The system shall operate as a multi-link, telephone intercom system with zoned selective and all-call speaker paging.

Up to 11 links (separate conversations) are available.

Three conversation links are utilized.

Up to 6 zones are available.

Three paging zones are utilized plus all-call.

* + - * 1. The system simulates and has the features of an automatic telephone system used by public telephone companies.

The master telephones are standard telephone company type telephones with pushbutton dialing.

The staff telephones are standard telephone company type telephones without dials.

* + - * 1. A person places a call from a master telephone by lifting the handset from its cradle, listens for the dial tone, then dials the number for the desired master or staff telephone.

A busy signal is heard if the number dialed reaches a telephone in use.

A ringback tone is heard if the number dialed is reached and not in use.

* + - * 1. An incoming call is announced at a telephone by an intermittent ringing signal. The call is answered by lifting the handset from its cradle, which establishes the communication link between the parties.
				2. A person pages a zone from a master telephone by lifting the handset from its cradle, listening for the dial tone, then dialing the number for the zone to be paged. The message is then given thru normal use of the handset.

An indication is given if the paging zone is in use.

All zones may be paged simultaneously by dialing the all-call number. All-call messages have priority over zone paging.

* + - * 1. Master telephones may call other master telephones or staff telephones.

Staff telephones may call a predesignated master telephone.

* + - * 1. Master telephones may be used to establish conference calls between other master telephones and staff telephones.
				2. Paging over the speakers within a zone (or all-page) does not interfere with conversation links that are being utilized.
			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 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 that can demonstrate that the proposed system meets contract requirements.

Edit number of hours to suit.

* + - * 1. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 18 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 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. TELEPHONE INTERCOM AND PAGING SYSTEM
				1. Rauland-Borg Corp.’s Telecenter RT2400 Series System, with:

Master Telephones:

Wall: Rauland’s ACS-24W Series.

Desk: Rauland’s ACS-24 Series.

Staff Telephones:

Wall: Rauland’s CRT-2.

Desk: Rauland’s CRT-2K.

Speakers:

Trumpet Type: Rauland’s 3702.

Recessed Ceiling Mounted (8 inch): Rauland’s 902-8C, including baffle and trim compatible with the types of ceiling systems.

Recessed Wall Mounted (8 inch): Rauland’s 902-8C, including backbox, baffle and trim.

Equipment Cabinet: Totally enclosed (with lockable door), ventilated, vertical cabinet with standard 19 inch panel rack mounting, to accommodate equipment as recommended by system manufacturer.

Accessories to perform the functions summarized in SYSTEM DESCRIPTION.

* + - 1. WIRING
				1. Conductors: Number of conductors, size and type as recommended by the Company producing the system.
			2. SIGNS AND LABELS
				1. Zone Locator: Card holder with aluminum or stainless steel frame, plexiglass front and sheet aluminum card backing plate. Minimum size card 3 x 5 inches. Type on card the telephone number for each paging zone and all-call, and description of area encompassed by each zone. Also type on card, telephone number and location of each telephone.
1. EXECUTION
	* + 1. INSTALLATION
				1. Install system in accordance with the Company’s printed instructions unless otherwise indicated.
				2. Zone Locator: Install adjacent to each master telephone.
			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 each telephone.

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 275114