

## SECTION 10200

### LOUVERS

#### PART 1 GENERAL

##### 1.01 SUMMARY

- A. Provide all labor, materials and equipment necessary for the installation of aluminum louvers. Louvers shall be the product of one manufacturer. The louvers shall be furnished complete with all hardware and appurtenances necessary for a satisfactory installation.
- B. Related requirements.
  - 1. Section 07900: Sealants.

##### 1.02 SUBMITTALS

- A. Submit product literature and specifications, including louver free area and large scale detailed fabrication drawings of each louver showing arrangement, dimensions, hardware, anchorage, accessories, relationship to adjoining construction and installation. Submit louver schedule.
- B. Submit full range of available colors and finishes.
- C. Submit factory test data and certificates of AMCA ratings.

##### 1.03 QUALITY ASSURANCE

- A. Comply with Standard 500 of the Air Movement and Control Association (AMCA).

##### 1.04 PROJECT CONDITIONS AND HANDLING

- A. Field Measurements: Verify exact size of louver openings prior to fabrication.
- B. Verify that rough openings are acceptable prior to installation of louvers. Do not commence work unless satisfactory conditions exist.
- C. Handle, transport and store materials and products in a manner which will prevent bends, dents, scratches, or damages of any kind. Promptly replace damaged materials and products. Store materials and products off the ground and protected from the weather.

#### PART 2 PRODUCTS

##### 2.01 GENERAL

- A. Non-acoustical louver sizes are based on 50 percent free area and 800 fpm maximum velocity through the free area. Resize louver and wall opening and make all other adjustments required if louvers do not meet these parameters.
- B. Water Penetration Rate: No greater than 0.02 ounces per square foot.

- C. Louvers: Of aluminum extrusions per ASTM B221, Alloy 6063-T5, minimum 0.125 inch thick, rated and tested in accordance with AMCA Standard 500.
1. Insect Screen: 18 x 16 mesh aluminum insect screen.
  2. Where required, furnish louvers with interior duct collars.
  3. Anchors, fasteners and flashing: Stainless steel or aluminum to match frames. Isolation tape or bituminous coating isolation paint as required.

## **2.02 STORM LOUVERS**

- A. Premanufactured units, with concealed mullions. Louvers frames shall be 4 inch width, ELF811 as manufactured by Ruskin, or approved equal.
1. Louvers shall be licensed to bear AMCA seal.
  2. Stationary louvers shall have "J" style blades, 35-45 degree pitch angles, spaced 3 to 4 inches on center, with bird screen in size shown.

## **2.03 FINISHES**

- A. Clear anodized finish complying with Aluminum Association Code AA-M12C22A41, Class I. Apply to chemically etched and pretreated aluminum extrusions to 0.7 mils (.018) minimum surface depth by a 60 minute anodizing process.

## **2.04 PERFORMANCE REQUIREMENTS**

- A. Stationary Louvers: The velocity at which the beginning point of water penetration occurs for stationary type weather louvers shall be at least 800 fpm. The minimum free area for a 48 inches x 48 inches louver shall be 50 percent. The maximum static pressure loss at 800 feet per minute shall be 0.15 inches wc.

# **PART 3 EXECUTION**

## **3.01 EXAMINATION AND PREPARATION**

- A. Inspect openings before start of installation with installer present for compliance with requirements for installation tolerances and other conditions affecting performance of construction of the work of this section. Verify that rough opening is the correct size, square and sill plate is level. Assure that openings are free of irregularities that would interfere with installation.
- B. Verify surfaces are visibly dry and free of excess mortar, grout and other debris. Verify metal surfaces are dry; clean; free of grease, oil, dirt, rust and corrosion, and welding slag; without sharp edges or offsets at joints.
- C. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
- D. Failure to call attention to defects or imperfections will be construed as acceptance and approval of substrate conditions. Installation indicates acceptance of substrates with

regard to conditions existing at the time of installation and full responsibility for completed work.

**3.02 INSTALLATION**

- A. Set louvers plumb, square, and true to line, without warp or rack of frames or sash and in alignment with surrounding work. Anchor with expansion anchors unless otherwise shown on the drawings to maintain positions permanently when subjected to normal thermal and building movement and design wind loads.
- B. Coordinate with heating or ventilation equipment to be connected.
- C. Seal joints between units and substrate to provide a weathertight installation at all joints and intersections and at opening perimeters.
- D. Install insulation between louver perimeter and adjoining collateral materials and/or existing walls to ensure continuity.
- E. Insulate aluminum from direct contact with steel, masonry concrete, or incompatible materials by bituminous paint, zinc chromate primer, or other suitable insulating material.

**3.03 INSPECTION AND CLEANING**

- A. Inspect louver units and replace scratched, chipped, or defective units. After inspection, remove labels. Set motorized louver blades for uniform alignment in "open" and "closed" positions. Adjust louvers so moving parts operate smoothly.
- B. Clean surfaces without using abrasive cleaners or solutions containing corrosive solvents.
- C. Clean aluminum surfaces promptly after installation of louvers. Exercise care to avoid damage to protective coatings and finishes. Remove excess sealant compounds, dirt, and other foreign substances. Lubricate hardware and other moving parts.

**3.04 PROTECTION**

- A. Initiate and maintain protection and other precautions required through the remainder of the construction period, to ensure that, except for normal weathering, louver units will be free of damage or deterioration at project completion.

**PART 4 SCHEDULE**

**4.01 WALL LOUVER SCHEDULE**

OPENING			LOUVER				REMARKS
Mark	Width	Height	Type	Material	Finish	Color	
L-1	7'-4"	9'-0"	Fixed	Aluminum	Anodized	Clear	At existing Blower Building

**END OF SECTION**



## SECTION 10520

### FIRE PROTECTION SPECIALTIES

#### PART 1 GENERAL

##### 1.01 SUMMARY

- A. Furnish and install fire protection specialties, including fire extinguishers and Knox Box Rapid Entry System, where shown on the drawings and as specified herein.

##### 1.02 SYSTEM PROCUREMENT DESCRIPTION

- A. Knox-Box Purchase: Contractor is required to purchase the Knox-Box products through the South Metro Fire Department. Obtain authorization /order form signed by a South Metro Fire Department official, complete the form ordering the specified products and submit the order to The Knox Company. The products will be delivered to the contractor for installation. Note: The Knox boxes are shipped without keys; only the fire department will be able to secure the box. Confirm access to boxes with fire department to determine proper working order prior to installation.

##### 1.03 QUALITY ASSURANCE

- A. Portable Fire Extinguishers: National Fire Protection Association - NFPA 10.
- B. Provide new portable fire extinguishers which are U.L. listed and bear U.L. "Listing Mark" for type, rating and classification of extinguisher indicated.
- C. Provide extinguisher with U.L. listed and F.M. rated pressure indicating gauge.

##### 1.04 SUBMITTALS

- A. Submit manufacturer's product data highlighting all information to show compliance with this specification. Include schedule indicating type, size and location of fire protection specialties.

##### 1.05 PRODUCT HANDLING

- A. Use all means necessary to protect materials of this section before, during, and after installation and to protect installed work and materials of all other trades.

#### PART 2 PRODUCTS

##### 2.01 MANUFACTURERS

- A. J.L. Industries, General Triplex, Larsen's Manufacturing Company or equal.

## **2.02 FIRE EXTINGUISHERS**

- A. TYPE 1 - For flammable liquids areas and energized electrical equipment areas, wall mounted with bracket.
  - 1. Provide Mark Bracket, MB 846 wall bracket as manufactured by J.L. Industries or equal.
  - 2. Provide at each cabinet one regular dry chemical fire extinguisher, 10 pound capacity, 4-A 60-C, Class ABC dry chemical type containing potassium bicarbonate based agent

## **2.03 KNOX-BOX RAPID ENTRY SYSTEM**

- A. Manufacturer: The Knox Company, Irvine CA, 1-800-552-5669. No Substitutes.
- B. Entry Knox Box: 3200 Series recessed mount with recessed mounting kit. Color: Dark bronze.

## **PART 3 EXECUTION**

### **3.01 INSPECTION**

- A. Examine substrates to which construction attaches or abuts, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of construction of the work of this section.
- B. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
- C. Failure to call attention to defects or imperfections will be construed as acceptance and approval of substrate conditions. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation and full responsibility for completed work.
- D. Correct conditions detrimental to the proper and timely completion of the work.

### **3.02 INSTALLATION**

- A. Install the work of this section in strict accordance with the manufacturer's recommendations and as approved by the Architect.
- B. Anchor all components firmly into position for long life under hard use.
- C. Install Knox Boxes as directed by a South Metro Fire Department official and in accordance with the drawings and manufacturer's installation instructions.
- D. Installation to be in operating condition in perfect adjustment.

**PART 4 SCHEDULE**

- A. Provide fire extinguishers and cabinets as scheduled below.
- B. Install in locations as directed noted in this schedule unless otherwise directed by a South Metro Fire Department official.

ROOM NAME	EXTINGUISHER TYPE	QTY.	REMARKS
Electrical Room - 100	Type 1	2	

- C. Install lock box at entry as shown on the drawings.

**END OF SECTION**

