

SECTION 08100 - METAL DOORS AND FRAMES

PART 1 - RELATED DOCUMENTS

- A. General provisions of Contract, General and Special Conditions, and General Requirements apply to this Section.

PART 2 - DESCRIPTION OF WORK

- A. Provide labor, materials, equipment, and services necessary for proper and complete installation of all hollow metal work.
- B. Include all view windows and side lights indicated on Drawings.
- C. Work Specified in Other Sections.
 - 1. Finish Hardware is specified in another Division 8 Section.

PART 3 - LABEL CONSTRUCTION

Where Label Construction is indicated in Door and Frame Schedule, materials and construction of doors and frames shall be in accordance with and bear indicated resistive rating label of Underwriters' Laboratories, Inc.

PART 4 - SUBMITTALS

Submit Shop Drawings for all work, indicating materials, uses, gauges, details of construction, connections to other work, fastenings, and anchors, to Architect for his review. Do not start fabrication until these Drawings are approved.

PART 5 - MATERIALS

- A. Manufacturers offering products complying with requirements include:
 - Steelcraft Mfg. Co.
 - Republic Steel Corporation
- B. Materials used shall be of best quality of their respective kinds.
- C. Steel in general shall be cold rolled stretcher level, prime quality steel, of U.S. Standard gauge as specified under the various headings.
- D. Doors, frames and framed openings exposed to the exterior shall be fabricated of zinc coated steel in the gauges scheduled. The steel shall be hot dipped so as to provide a ductile coating, tightly adherent to the base steel. The zinc coating shall be an A60 coating in accordance with ASTM specification A525 (.6 oz. of zinc per sq. ft. of steel total coverage.)

PART 6 - HOLLOW METAL STEEL DOORS, POLYURETHANE CORE

- A. Physical Properties:
 - “R” Factor: 11.1
 - “U” Factor: .09
 - Compression Strength: 3600 P.S.F.
- B. Doors shall be equal to those manufactured by The Steelcraft Manufacturing Company, Cincinnati, Ohio, and designated as:
 - LF-18 (1-3/4", 18 gauge steel)
- C. Doors shall be fabricated of:
 - 1. Cold rolled steel, interior.
 - 2. Galvanized steel with a zinc coating of .6 ozs. per square foot total, exterior.
- D. Door shall be flush with edge seams filled and ground smooth.
- E. Doors shall have 1/8" bevel in 2" on hinge and ground smooth.
- F. Doors shall have vertical mechanical interlocking seams on hinge and lock edges.
- G. Doors shall be provided with top and bottom inverted 14 gage steel channels spot welded within the door.
- H. Doors shall be mortised and adequately reinforced for all hardware.
 - 1. Mortised hardware reinforcements shall be drilled and tapped at the factory.
 - 2. Surface applied hardware shall be field drilled by others.
- I. Doors shall be reinforced internally with a 14 gage steel reinforcement for surface closers when specified.
- J. Out swinging exterior doors shall be provided with top caps for protection against weather and with a polyurethane core.
- K. Doors shall be phosphatized and receive one coat of baked on prime paint.

PART 7 - FRAMES

- A. Fabricate frames of 16 ga. steel. Manufacturers offering products complying with the requirements include:
 - Steelcraft Mfg. Co.
 - Republic Steel Corp.
 - Fenestra, Inc.
- B. All solid frames shall have welded and mitered corners, equivalent to Steelcraft Type D-16. (Issue A).

- C. Frames in stud walls can be KD frames.
- D. Provide suitable anchors for jambs as required by wall construction. Provide a minimum of six (6) jamb anchors and two (2) base anchors per frame. Provide anchors as required for labeled frames.
- E. Reinforcing channels, where called for, shall be 12 gauge reinforcing channel in head.

PART 8 - HARDWARE REINFORCEMENTS

- A. Accurately mortise, reinforce, drill, and tap at factory all work to receive hardware, except do drilling and tapping for door checks and brackets at building.
- B. Reinforcements shall be of ample size and thickness to stiffen work against strain of service required. Reinforcements for locks and escutcheons shall be box type with spring lead contacts for lock cases.
- C. Provide cover boxes in back of all hardware cutouts in combination type frames.

PART 9 - FINISH

- A. All steel hollow metal work shall be phosphatized and receive one coat baked on prime coat.
- B. Each coat shall be baked on and sanded smooth.

PART 10 - INSTALLATION

- A. Set frames in their proper locations, plumb and true and securely braced in position.
- B. Receive, store and protect and be responsible for all doors to be installed hereunder. Report immediately to Contractor shortages, damage, improper preparation, defective finishes and warped doors. Do not install any material not perfect in every respect.
- C. Inspect openings and frames to receive doors. Report damage or discrepancy affecting proper installation of units to Contractor, and have corrective work done in a suitable and satisfactory manner.
- D. Install doors in openings as indicated on Drawings in conformance with shop drawings and hardware schedule. Install doors so they hang plumb and true, with proper clearances using items of hardware scheduled for openings.
- E. Accurately set all frames and thoroughly and rigidly anchor and fasten in place in building construction. Weld drywall anchors to frames.
- F. Check frames before and after walls are constructed to see that they are properly erected.

End of Section

SECTION 08361 - SECTIONAL INSULATED OVERHEAD DOORS

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 Description of Work

- A. Extent of sectional insulated overhead doors are shown on drawings.
 - 1. Furnish and install motor operated sectional steel insulated overhead doors.

1.03 Quality Assurance

- A. Provide each sectional insulated overhead door as a complete unit produced by one manufacturer, sections, brackets, guides, tracks, counterbalance mechanisms, hardware, weatherstripping and installation accessories, to suit openings and head room allowable.
- B. Provide setting drawings, templates, and directions for installation of anchorage devices. Coordinate delivery with other work to avoid delay.
- C. Wind Loading: Design and reinforce sectional overhead doors to withstand a 30 lb. per sq. ft. wind loading pressure.

1.04 Submittals

- A. Product Data: Submit manufacturer's product data, roughing-in diagrams, and installation instructions for each type and size of overhead door. Include manufacturer's operating instructions and maintenance data.
- B. Shop Drawings: Submit shop drawings for special components and installations which are not fully dimensioned or detailed in manufacturer's data.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

- A. Manufacturer: Subject to compliance with requirements, provide products of one of the following:
 - 1. Overhead Door Corporation.
 - 2. Ideal Door Company.
 - 3. Equivalent as approved.

- B. Standard of quality for electrically operated sectional steel overhead door shall be 591 Series, commercial thermacore insulated steel sectional door as manufactured by Overhead Door Company, or equal.
- C. Door #4, provide (5) 24" x 7" acrylic lights.
 - 1. Additional accessory for door #4: remote radio control system.

2.02 Steel Section Doors

- A. Weather Seals: Rubber tube seals shall be fitted inside every joint between sections to prevent air infiltration. Top section of door shall have EPDM rubber sealing strip. Provide standard jamb seals. Provide EPDM double bottom sealing weatherstrip.
- B. Insulating Value of Door: R 14.86.
- C. Finish: Exterior and interior of door sections shall receive shopbaked on primer ready for job finish paint in color as selected by Architect.
- D. Door sizes shall be as indicated on the drawings.

2.03 Tracks, Supports and Accessories

- A. Tracks: Provide manufacturer's standard galvanized steel tracks for door indicated. Size tracks for door size and weight, and designed for clearances shown. Provide complete track assembly including brackets, bracing and reinforcing required for rigid support. Slope tracks at proper angle from vertical, or otherwise design to ensure tight closure at jambs when door unit is closed. Bolt to track supports.
- B. Provide high lift.

2.04 Hardware

- A. Provide standard, rust-resistant hardware, with galvanized or cadmium-plated or stainless steel fasteners, to suit type of door.
- B. Hinges: Provide standard galvanized steel hinges per manufacturer's recommendations for size of door. Attach hinges to door sections.
- C. Rollers: Provide standard galvanized rollers, with steel ball bearings in case-hardened steel races, mounted with varying projections to suit slope of track.
- D. Provide electric operation Overhead Door Model SEL ½HP 208V Single Phase.
 - 1. All overhead doors: pushbutton control stations should be located on interior side.

2.05 Counterbalancing Mechanisms

- A. Torsion Spring: Hang door assembly for operation by torsion spring counterbalance mechanism, consisting of adjustable tension tempered steel torsion springs mounted on a case-hardened steel solid shaft, and connected to door with galvanized aircraft type lift cable.

PART 3 - EXECUTION

3.01 Installation

- A. Door shall be installed by manufacturers authorized dealer. Install door rack, and operating equipment complete with necessary hardware anchors, inserts, hangers, and equipment supports in accordance with final shop drawings, and manufacturer's instructions, and as herein specified.
- B. Provide bracing, and reinforcing as required for rigid installation of track and door operating equipment.
- C. Upon completion of installation, including work by other trades, lubricate test and adjust door to operate easily, free from warp, twist, or distortion and fitting weathertight for entire perimeter.

END OF SECTION

SECTION 08710

PART 1 – GENERAL

1.01 Related Documents

Drawings and general provisions of contract and Division 1 specification sections, apply to work of this section

1.02 SUMMARY

This section **DOES INCLUDE** Aluminum door hardware as noted in sets.

Work under this heading includes furnishing all hardware to respective trades. The hardware supplier shall promptly furnish templates to all manufacturers furnishing materials necessary for completion of this part.

Extent of finish hardware is indicated on drawing and in schedules.

The following specifications are a guide and a description of the quality materials required. No material of quality or weight less than outlined in this specification will be accepted. The contractor will be responsible for supplying the correct quantity of all materials, whether or not specifically mentioned in this specification. Any additional items that may be required shall be furnished and be of type, quality, and utility consistent with other hardware specified.

1.03 SUBMITTALS

ARCHITECT'S HARDWARE SCHEDULE:

Architect's hardware schedule is by hardware set number. Refer to drawings for designation of hardware set number applicable to each opening. Certain additional items of hardware and/or hardware accessories specified herein shall be finished and noted on the hardware schedule.

SUPPLIER'S HARDWARE SCHEDULE

A complete hardware schedule, indicating type, number, location, and finish shall be submitted to architect for approval, together with such samples as may be required for review. Opening numbers shall be same as used in contract documents. Schedule shall be prepared according to Door and Hardware Institute recommendations (schedule and sequence format) and shall include degree of door closer installation.

Supplier's hardware schedule will be reviewed by architect for type, quality, finish, and for function (other than hand). Contractor shall be responsible for checking schedule for correct hand of locksets and for supplying quantity of items required by contract documents.

Provide supplementary or revised hardware schedules if deemed necessary by architect.

Do not ship or deliver hardware to job prior to review of hardware schedules by architect.

Hardware schedule shall be submitted in the following format. Hardware schedules submitted to architect for review not in this format will be rejected:

2.02 HARDWARE FINISHES

The designations used to indicate hardware finishes are those listed in ANSI /BHMA A156.18, "Materials and Finishes", including coordination with the traditional U.S. finishes, shown by certain manufacturers for their products.

1.	Butt Hinges	US26D (652) Satin Chromium US32D (630) Satin Stainless Steel
2.	Mortise Cylinders, Rim Cylinders,	US26D (626) Satin Chromium
3.	Cylindrical Latch sets and Locksets Mortise Latch sets	US26D (626) Satin Chromium US26D (626) Satin Chromium
4.	Exit Devices	US26D (626) Satin Chromium
5.	Door Closers	ALUM (689) Powder Coated Aluminum
6.	Wall and Floor Stops	US32D (626) Satin Stainless Steel
7.	Door Pulls	US32D (630) Satin Stainless Steel
8.	Push Plates	US32D (630) Satin Stainless Steel
9.	Mop, Kick, and Armor Plates	US32D (630) Satin Stainless Steel
10.	Saddle Thresholds	Mill Finish Aluminum, Uncoated
11.	Door Sweeps	628 (US28) Satin Aluminum, Clear Anodized
12.	Self- Adhesive Seals	Clear (Silicone)
13.	Perimeter Seals	628 (US28) Satin Aluminum, Clear Anodized
14.	Door Silencers	Gray Gray (Rubber)

2.03 HINGES

Characteristics:

- a. Tested to be in accordance with ANSI / BHMA A156.1.
- b. Templates: Provide only template-produced units.
- c. Fasteners: Provide Phillips flat-head screws complying with the following requirements.
 - (1) For metal doors and frames, install machine screws into drilled and tapped holes.
 - (2) For wood doors and frames, install threaded-to-the-head wood screws.

- (3) For fire-rated wood doors, install #12 x 1-1/4 inch, threaded-to-the-head steel wood screws.
 - (4) Finish screw heads to match surface of hinges or pivots.
- d. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
- (1) Out-Swing Exterior Doors: Non-removable pins.
 - (2) Out-Swing Interior Doors: Non-rising pins and Non-removable pins; as indicated in the Door Hardware Sets.
 - (3) In-Swing Exterior / Interior Doors: Non-rising pins.
 - (4) Tips: Flat button and matching plug. Finished to match hinge leaves.
- e. Size: Size hinges in accordance with the specified manufacturer's published recommendations.
- f. Quantity: Furnish one pair of hinges for all doors up to 5'-0" high.

Furnish one additional hinge for each additional 2-1/2 feet or fraction thereof.

2.04 CYLINDERS and KEYS

Characteristics:

- a. Tested to be in accordance with ANSI / BHMA A156.28.
- b. Falcon Key System: Except as otherwise indicated, provide a NEW Key System for this Project.
- c. Equip all cylinders and locksets with a 7-pin core.
- d. Metals: Construct lock cylinder parts from brass or bronze, stainless steel, or nickel silver.
- e. Comply with the Owner's instructions for keying requirements and, except as otherwise indicated, provide individual change keys for each lock that is not designated to be keyed alike with a group of related locks. All keys are to be provided as noted:
 - (1) Permanently inscribe each key with the cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE".
- f. A key meeting between the Owner and a representative of the successful finish hardware distributor shall be arranged subsequent to the return of the Approved Finish Hardware Schedule. A keying schedule will be established by the finish hardware distributor's representative and submitted to the Owner, for Approval. After the Owner's review, the keying schedule shall be returned to the distributor's representative such that the Permanent keyed locks can be prepared on a timely basis.
- g. Permanent keys will be transmitted directly to the Owner by the Finish Hardware Distributor.
- h. Key Material: Provide keys of nickel silver only.
- i. Key Quantities: Furnish the following quantities of keys for the entire project.
 - (1) Five (5) Each - Master Keys
 - (2) Three (3) Each - Permanent Change Keys
(For Each Keyed Door Opening)

2.05 CYLINDRICAL LATCHSETS AND LOCKSETS:

N/A

2.05 MORTISE LOCKSETS

N/A

2.06 EXIT DEVICES:

Characteristics:

- a. Tested to be in accordance with ANSI A156.3, 1994, Grade 1. All exit devices to be heavy duty, with one-piece removable covers. The housing shall be manufactured from extruded aluminum without exposed screws or rivets.
- b. Exit Devices shall be "UL" listed for Life Safety. All exit devices for fire-rated door openings shall have "UL" labels for "Fire Exit Hardware".
All exit devices shall conform to NFPA 80 and NFPA 101 requirements.
- c. All series exit devices shall be "touchpad" (modern) types, incorporating a hydraulic fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with the exit device operation.
All exit devices shall be non-handed. The touchpad shall extend a minimum of 1/2 of the door width and shall be a minimum of 2-3/16" in height. Plastic touch pads shall not be acceptable. The touchpad height shall exceed height of mechanism case or rail assembly to eliminate "Pinch Points". If the touchpad height does not exceed the height of the mechanism case or rail assembly, provide a factory installed insert / filler on the top and bottom of the touchpad along the mechanism case and rail assembly; to prevent "Pinch Points".
- d. All latch bolts to be the deadlocking type. Latch bolts shall have a self-lubricating coating to reduce wear.
Plated or plastic coated latch bolts shall not be acceptable.
- e. All metal end caps to be standard with all exit devices.
- f. Exit device strikes, where surface applied, shall be a roller type and have an anti-slip mounting plate.
- g. All outside exit device trim shall be forged brass, full escutcheon. The lever trim shall be a "breakaway type" with substantial resistance to rotation when locked but allowing the vandalized lever to drop to a vertical, 90 degrees, position when more than 35 pounds of torque is applied.
- h. The exit device end caps shall be secured with three (3) screws to a truss bracket.
- i. All exit devices shall be made of brass, bronze, stainless steel, or aluminum material, plated to the standard architectural finishes to match the balance of the door hardware.

2.07 CLOSERS

Characteristics:

- a. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder; which have been tested and certified under ANSI / BHMA Standard A156.4, Grade 1.
- b. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F (49 degrees C) to -30 degrees F (-35 degrees C).
- c. Spring power shall be continuously adjustable over the full range of closer sizes, and allowing for reduced opening force for the physically handicapped. Hydraulic regulations shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and back check.
- d. All closers shall have solid forged steel main arms (and forearms for parallel arm closers) and where specified shall have a spring loaded stop in the soffit shoe ("SPRING CUSH-N-STOP"); as indicated in the Door Hardware Sets. Where door travel on out-swing doors must be limited, use SPRING CUSH-N-STOP type closers. Auxiliary stops are not required when SPRING CUSH-N-STOP type closers are used.
- e. All closers shall have non-metallic full, plastic, covers, which provides complete enclosure.
- f. All closers shall be certified to exceed Ten Million (10,000,000) full load cycles by a recognized independent testing laboratory. All closers shall be of one manufacturer and shall maintain the manufacturer's ten year warranty.
- g. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ADA and ANSI A117.1 provisions for door opening force.
- h. All closers shall be attached utilizing Through Bolts with Wood and Machine Screws ("TBWMS").
- i. Closers to be installed to allow door swing as shown on plans. Doors swinging into exit corridors shall provide for corridor clear width as required by code. Where possible, mount closers inside rooms.
- j. Powder coating finish to be certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.

Lacquer or painted finish on metal components shall not be acceptable.

2.08 PUSH AND PULL UNITS

PULL UNITS:

Characteristics:

- a. Tested to be in accordance with ANSI / BHMA A156.6, Grade 1.
- b. Door Pulls shall be made of 1" diameter material, Semi-Circular offset, 11" Center-To-Center length, with a minimum of a 3-1/4" projection, and a 2-1/4" clearance. The door pulls shall comply with the recommendations of the Americans with Disabilities Act (A.D.A.).

- c. Provide door pulls with 1/8" thick base washers; as indicated in the Door Hardware Sets.
- d. Fasteners: Provide two (2) 5/16-18 x 2-1/4" machine screws with 1" Diameter Decorative Thru-Bolts.

PUSH PLATES:

Characteristics:

- a. Tested to be in accordance with ANSI / BHMA A156.6, Grade 1.
- b. Push Plates shall be made of .050" wrought, stainless steel material.
- c. Where detailed, provide 3 1/2" x 15" plate with round corners.
- d. Where detailed, provide push plates engraved with the word "PUSH" vertically
- e. Provide exposed, Phillips oval head, stainless steel, sheet metal screw, mounting fasteners, for all plates.

2.09 PROTECTIVE PLATES

N/A

2.10 THRESHOLDS

Characteristics:

- a. All thresholds shall be certified by an independent testing laboratory to meet the requirements of ANSI / BHMA A156.21.
- b. All thresholds shall be in accordance with the requirements of A.D.A.A.G. and ICC / ANSI A117.1.
- c. Thresholds shall be furnished in an aluminum extrusion that is of alloy 6063 hardness T-5.
- d. Provide thresholds with 1/4-20 Stainless Steel Machine Screws and Lead Anchors.

2.11 DOOR STOP

Characteristics:

- a. Tested to be in accordance with ANSI / BHMA A156.16, Grade 1.
- b. Wall Bumpers shall have a solid forged brass housing with a concealed, in the convex bumper, attachment. Provide with wood screw and plastic anchors.
- c. Floor Stops shall be made from solid cast brass or bronze. Provide with machine screws and lead expansion shield anchors.
- d. Install floor stops in such a position that they permit maximum door swing, but do not present a hazard or obstruction.

2.12 SILENCERS

Provide GJ-64 silencers for all hollow metal frames. Single doors shall have three (3) silencers. Double doors shall have two (2) silencers.

PART 3 – EXECUTION

3.01 APPLICATION

INSTALLATION: Work shall be done by a craftsman skilled and experienced in installation of finish hardware. Mortised items shall be neatly set in and made flush with door or frame surface. Manufacturer's instructions and recommendations shall be strictly followed.

FASTENERS: Hinges, pivots, locks, and exit devices shall be installed with proper sex bolts, wood or machine screws as supplied by the manufacturer. Surface closers shall be mounted to door with sex bolts. Door pulls shall be installed on doors with thru-bolts as supplied by manufacturer.

3.02 ADJUSTING, CLEANING, AND DEMONSTRATING

- A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.
 - 1. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy to execute final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- B. Clean adjacent surfaces soiled by hardware installation.

3.03 HARDWARE SETS

Hardware Set 1 Tag # 1, 2, 3

1 ea	Cont. Hinge	112 HD	83"
1 ea	Rim Exit	DL-CD24R- NL-OP	
1 ea	Mortise Cylinder	C987	
1 ea	Rim Cylinder	C953	
1 ea	Offset Pull	8190-0	
1 ea	Parallel Arm Closer	1461	H-Cush-18PA-30-60

NOTE: Threshold and Weather Strip by Aluminum Door Supplier

Hardware Set 2 Tag # 4, 6, 7, 8

3 ea	Ball Bearing Hinges	5BB1	4 ½ x 4 ½ NRP	630
1 ea	Rim Exit	25R- NL		
1 ea	Mortise Cylinder	C987		
1 ea	Closer	1461	R w/PA	
1 ea	Saddle Threshold	412S		
1 ea	Door Sweep	759S-V		
1 roll	Weather Strip	736S		
1 ea	Drip Cap	810S	6" WTDW	

End of Schedule

SECTION 08800 - GLASS AND GLAZING

PART 1 - SCOPE

- A. This Section includes all labor, materials, equipment and related items required for the work of glass and glazing as shown on the Drawings and specified herein.

PART 2 - SUBMITTALS

- A. The Contractor shall submit to the Architect for approval prior to furnishing materials at the job site, in five (5) copies, manufacturer's specifications, application and performance data, etc. for all glass and glazing materials, except miscellaneous accessories specified hereunder.
- B. Samples. The Contractor shall submit if requested to the Architect for approval prior to furnishing materials at the job site, duplicate samples of the following:
 - 1. Glass of each type, not less than 3" x 5".
 - 2. Glazing compound, one (1) cartridge.

PART 3 - CODES AND STANDARDS

- A. All glazing compounds and methods of glazing shall be in accordance with applicable portions of the Flat Glass Marketing Association's "Glazing Manual", latest edition.
- B. All safety glazing shall meet requirements of the Kentucky Department of Housing, Buildings, and Construction and appropriate Kentucky Revised Statutes.

PART 4 - PRODUCT HANDLING

- A. Glass shall be delivered to the job and shall be stored on end and under cover. Glass shall be properly crated, packaged, and protected from damage. Glazing compounds shall be delivered in manufacturer's sealed containers, with attached labels properly identifying the types.

PART 5 - MATERIALS

- A. Insulating glass for installation in aluminum windows shall be of sizes shown, composed of outer and inner panes of 1/4" (for color, see elevations) 1/4" clear .548, 1" O.A. , by LOF separated by a 1/2" dehydrated air space. Each unit shall be hermetically sealed and glass shall be separated by a spacer around the edges as standard with the manufacturer.
 - 1. Warranty. Each unit shall be guaranteed by the manufacturer not to develop, under normal conditions, material obstruction of vision as a result of film formation on the internal glass surfaces caused by failure of the hermetic seal other than through glass breakage for a period of ten (10) years.

- B. Compound for glazing in openings other than those which are dry-glazed shall be non-staining, one-part polysulfide base sealant, and shall be PRC "Rubber Caulk 5000", Pecora "Synthacalk GC-9", or DAP "Flexiseal". Color of compound shall be manufacturer's standard as selected by the Architect.
- C. Miscellaneous Items. Provide neoprene spacers, setting blocks, clips, and all accessories required for the work of glazing.
- D. Other material shall be as specified hereinafter.

PART 6 - GLAZING

A. General Requirements:

1. Glazing shall be done in a weathertight and waterproof manner. No glazing work shall be done when the temperature is below 40 degree F.
2. Glazing surfaces shall be extremely clean, dry and completely dust free before commencing application of glazing materials.
3. Remove glazing beads completely, perform glazing operations and set back in correct location. Do not mar beads, screws and the like.
4. Glazing shall be done at the building after windows, frames, doors, etc. are installed.
5. Remove excess glazing compound from glass and other adjacent surfaces to prevent permanent stains or other damage.

- B. Aluminum entrance doors and fixed window frames shall be glazed in strict accordance with entrance manufacturer's instructions and details for these operations.

PART 7 - CLEANING

- A. At completion, remove dirt, stains, etc. from glass. Wash and polish glass inside and outside surfaces. Exercise care so as not scratch or damage glass. Do not use acid solution or water containing caustic soaps. Leave work in perfect condition as approved by the Architect.

End of Section