



**PARTNERS**  
IN HOUSING DEVELOPMENT CORPORATION

**ADDENDUM NO. 2**

**FOR**

**RENOVATIONS TO BURTON APARTMENTS**

**821 North Pennsylvania Street  
Indianapolis, IN 46201**

**Prepared  
For**

**Partners in Housing  
Development Corporation  
2811 East 10<sup>th</sup> Street  
Indianapolis, IN 46201**

**August 9, 2011**

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## RENOVATIONS TO BURTON APARTMENTS

Partners in Housing  
Development Corporation

### ADDENDUM #2



Date of Issue: August 9, 2011

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This Addendum is issued before bidding to inform the Bidders of revisions and/or clarifications to the Bidding Documents and includes all Bid Packages.

All requirements contained in the Bidding Documents shall apply to this Addendum. The general character of the work called for in this Addendum shall be the same as originally set forth in the applicable portions of the Bidding Documents for similar work, unless otherwise specified under this Addendum. All incidental work necessitated by this Addendum, as required to complete the work, shall be included in the bid even though not specifically mentioned in this Addendum.

The Addendum forms a part of, modifies the Bidding Documents and Contract Requirements, the Specifications and the Drawings all dated July 29, 2011 as well as any previous Addendums. This Addendum is hereby made a part of the Bidding Documents and will be included in the Contract.

Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

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To: ALL BIDDERS OF RECORD

### GENERAL REMARKS

#### ITEM-1 Pre-Bid RFI's

- A. Question 1: Is there a prevailing wage scale required on this project?  
Response 1: None required.
  - B. Question 2: Are there liquidated damages on this project?  
Response 2: There are no liquidated damages.
  - C. Question 3: How do we quantify the amount of asphalt paving?  
Answer 3: Refer to sketch ADD1-C1 from addendum. It contains a description of the area to be paved.
  - D. Question 4: Where specifically do you want the maintenance of unit masonry?  
Answer 4: This is required at the exterior of the exposed foundation walls.
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## **CHANGES TO SPECIFICATIONS**

### **ITEM-2 075323 – EPDM Roofing**

- A. Clarification: Per 1.4 - E, the roofing system must be listed on DOE Energy Star roofing list.
- B. Delete part 1.2 - B in its' entirety.
- C. Modify part 2.1 - A as follows:
  - A. EPDM: ASTM D 4637, Type I, non-reinforced, uniform, flexible EPDM sheet.
- D. Add part 2.1 - A - 1 - f. as follows:
  - f. Versico Roofing Systems; Versigard White .060 EPDM Membrane.

### **ITEM-3 079200 - Joint Sealants**

- A. Add the following items to Section 2.1 as follows:
  - C. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    - 1. Architectural Sealants: 250 g/L.
    - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
    - 3. Sealant Primers for Porous Substrates: 775 g/L.
  - D. Low-Emitting Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

### **ITEM-4 085200 - Wood Windows**

- A. Replace Section 2.6 - C with the following:
  - C. Glass-Fiber Mesh Fabric: 20-by-20 (0.85-by-0.85-mm) or 20-by-30 (0.85-by-0.42-mm) mesh of PVC-coated, glass-fiber threads; woven and fused to form a fabric mesh resistant to corrosion, shrinkage, stretch, impact damage, and weather deterioration; in the following color. Comply with ASTM D 3656. Mesh Color: Black.

### **ITEM-5 085169 - Aluminum Storm Windows**

- A. See attached new section complete.

### **ITEM-6 087100 - Door Hardware**

- A. Spec section has been revised to include revisions to hardware sets.
- B. See attached revised section complete.

### **ITEM-7 099123 - Interior Painting**

- A. Add the following items to Section 2.2 as follows:
  - D. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction and, for interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
    - 1. Flat Paints and Coatings: 50 g/L.
    - 2. Nonflat Paints and Coatings: 150 g/L.
    - 3. Primers, Sealers, and Undercoaters: 200 g/L.
    - 4. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
    - 5. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
    - 6. Pretreatment Wash Primers: 420 g/L.
  - E. Low-Emitting Materials: Interior paints and coatings shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

**OTHER ITEMS**

**ITEM-8 Mechanical Addendum**

- A. Refer to attached Mechanical Addendum No. 2 (2 pages).

**ATTACHMENTS**

- 1. Section 085169 - Aluminum Storm Windows
- 2. Section 087100 - Door Hardware
- 3. MEP ADD01 - MEP Addendum No. 2

**END OF ADDENDUM NO. 2**

## SECTION 085169 - ALUMINUM STORM WINDOWS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- 1. This Section includes removable storm windows installed over existing historic wood-framed windows.

#### 1.3 REFERENCES

- A. ANSI/AAMA 1002.10-93 "Voluntary Specifications for Insulating Storm Products for Windows and Sliding Glass Doors"
- B. ASTM E 283 "Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors"
- C. ASTM E 330 "Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- D. ASTM E 331 "Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Air Pressure Difference"
- E. AAMA 502 "Voluntary Specification for Field Testing of Windows and Sliding Glass Doors"
- F. ASTM E 90 "Laboratory Measurement of Airborne Sound Transmission of Building Partitions"
- G. ASTM E 413 "Determination of Sound Transmission Class (STC)"

#### 1.4 SYSTEM PERFORMANCE

- A. Air Leakage Test: The storm window shall be subjected to an air leakage test in accordance with ASTM-E 283. Window units tested by an Independent Laboratory shall be glazed with 1/8" clear annealed glass. Air leakage shall meet the following performance requirements.
  - 1. Air leakage for fixed panel storm windows shall not exceed 0.15 CFM per square foot of window area at both a positive (infiltration) and negative (exfiltration) static pressure of 1.56 PSF at 25 mph wind. Weep holes shall not be sealed during the air leakage test.
  - 2. With the storm sash in the closed position, air leakage in removable panel, horizontal and vertical sliding windows shall not exceed 0.50 CFM per lineal foot of sash crack at both positive and negative static pressure 1.56 PSF at 25 mph wind. Weep holes shall not be sealed during the air leakage test.
- B. Uniform Structural Load Test: With storm sash closed position, the window shall be tested in accordance with ASTM E 330 at 30.0 PSF at 108 mph wind.
- C. Water Resistance Test: Window shall be tested in accordance with ASTM E 331 at 2.0 PSF at 28 mph wind.
- D. Concentrated Load and Glass Adherence Tests: A concentrated load equal to the weight of the sash, but not less than 15 pounds, acting parallel to the plane of the glass in a direction tending to pull the sash rails off the glass and applied alternately for three minutes at the center of all sash rails of the glazed sash shall not cause the sash rails to deflect more than 1/8" each.
- E. Safety Drop Test: When the glazed lower sash of a vertical sliding storm window is allowed to "free fall" the maximum distance provided for by the latch positions, it shall automatically stop every two inches in the next lower latch position.
- F. Glass and Screen Insert Squareness Test: Take a measurement of the distance between diagonally opposite pairs of corners of an insert with a steel rule. The difference between these measurements shall not be more than 1/4".

### **1.5 SUBMITTALS**

- A. Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of storm window indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances, installation details, and the following:
  - 1. Mullion details, including reinforcement and stiffeners.
  - 2. Flashing and drainage details.
  - 3. Weather-stripping details.
  - 4. Glazing details.
- C. Samples for Initial Selection: For units with factory-applied color finishes.
  - 1. Include similar Samples of hardware and accessories involving color selection.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed within the last four years by a qualified testing agency for each type of aluminum storm window. The size shall be at least as large as the largest unit of each type in the project.
- E. Maintenance Data: For operable window sash, operating hardware and weather stripping and finishes to include in maintenance manuals.
- F. Warranty: Special warranty specified in this Section.

### **1.6 QUALITY ASSURANCE**

- A. Installer Qualifications: An installer acceptable to storm window manufacturer for installation of units required for this Project.
- B. Manufacturer Qualifications: A manufacturer with five years experience in fabricating aluminum storm windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.
- C. Glazing Publications: Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.
- D. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Build mockup for a single storm window. Coordinate this with EIFS and fiber cement trim mockup. Coordinate location with Architect. Approved mock up may remain in place a part of the finished Work.

### **1.7 PROJECT CONDITIONS**

- A. Field Measurements: Verify storm window openings by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate window opening sizes shown on drawings with actual existing opening dimensions. Adjust storm window sizes based on actual field measurements.

### **1.8 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace storm windows that fail in materials or workmanship within specified warranty period. Warranty to include all materials and labor.
  - 1. Failures include, but are not limited to, the following:
    - a. Failure to meet performance requirements.
    - b. Structural failures including excessive deflection, water leakage, or air infiltration.
    - c. Faulty operation of movable sash and hardware.
    - d. Deterioration of metals, vinyl, other materials, and finishes beyond normal weathering.
    - e. Failure of glass.
  - 2. Warranty Period: Ten years from date of Substantial Completion

- B. Installation Warranty: Installer shall furnish written warranty against defects in the installation, workmanship and materials for a period of three years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Mon-Ray, Inc.; 500 series removable, or available manufacturers that may be incorporated into the Work include, but are not limited to, the following:
1. Kaufmann by Styleline.
  2. Gorell Windows and Doors, LLC.
  3. Larson Manufacturing Company.
  4. Allied Window, Inc.

### **2.2 MATERIALS**

- A. Aluminum Extrusions: Manufacturer's standard formed sheet or extruded-aluminum cladding, Provide aluminum alloy and temper recommended by storm window manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi (150-MPa) ultimate tensile strength, and not less than 16,000-psi (110-MPa) minimum yield strength.
1. Baked-Enamel Finish for Extrusions and Sheet: Manufacturer's standard baked enamel complying with AAMA 2603 and paint manufacturer's written specifications for cleaning, conversion coating, and painting.
    - a. Color: Color as selected by Architect from Manufacturer's full line.
  2. Baked-Enamel Finish for Coil: Manufacturer's standard baked enamel complying with AAMA 620 and paint manufacturer's written specifications for cleaning, conversion coating, and painting.
    - a. Color: Color as selected by Architect from Manufacturer's full line.
- B. Fasteners: Aluminum, nonmagnetic stainless steel, epoxy adhesive, or other materials warranted by manufacturer to be noncorrosive and compatible with storm window members, cladding, trim, hardware, anchors, and other components.
1. Exposed Fasteners: Unless unavoidable for applying hardware, do not use exposed fasteners. For application of hardware, use fasteners that match finish of member or hardware being fastened, as appropriate.
  2. Wrought metal or plastic parts will not be acceptable.
- C. Weather Stripping: Weather stripping shall be positively attached to storm window frame. Compressible weather stripping designed for permanently resilient sealing under bumper or wiper action and for complete concealment when storm window is closed.
1. Weather-Stripping Material: Dual weather stripping, consisting of continuous, flexible polyvinyl chloride material in dual durometer design. Vent units have welded corners, compressed between frame and sash for positive seal on all four sides.
  2. Weather Seals: Provide weather stripping with integral barrier fin or fins of semirigid, polypropylene sheet or polypropylene-coated material. Comply with AAMA 701/702.
- D. Glazing: 1/8" annealed float glass. Provide tempered safety glass in code required locations.
- E. Vinyl Track: All operating windows shall incorporate a vinyl track to eliminate metal to metal contact and reduce operating force. All horizontal sliding sashes shall operate smoothly in a weather tight vinyl track. All vertical sliding sashes shall operate in a vinyl track with predetermined processed ventilating positions. The vinyl tracks will be secured into the storm frame through the use of extruded ports.

- F. Aluminum Insect Screen Frames: Manufacturer's standard aluminum alloy complying with SMA 1004 or SMA 1201. Fabricate frames with mitered or coped joints or corner extrusions, concealed fasteners, and removable PVC spline/anchor concealing edge of frame.
  - 1. Aluminum Tubular Framing Sections and Cross Braces: Roll formed from aluminum sheet with minimum wall thickness as required for class indicated.
  - 2. Finish for Exterior Screens: Match color and finish of aluminum cladding.
- G. High Transparency Mesh Fabric: 21-by-17 (0.85-by-1.0-mm) PVDF mesh with minimum 78 percent visible light transmission screen cloth complying with FS L-S-125B and SMA 1004 or SMA 1201 that is resistant to corrosion, shrinkage, stretch, impact damage, and weather deterioration; black.

### **2.3 WINDOW TYPE AND OPERATION**

- A. Type: All storm windows shall be removable panel aluminum storm windows with a frame depth of approximately one inch.
- B. Storm windows shall mount cleanly into the exterior jambs using a perimeter channel frame expander and without exposed fasteners.
- C. All glass sash and screen inserts shall be easily removable to the interior for cleaning. The entire storm window shall be designed and constructed in a manner that allows for easy replacement of all parts, hardware and weather-stripping.
- D. Non-operating Sash: All removable panels shall be held in place by an extruded aluminum turn button.

### **2.4 FABRICATION**

- A. Fabricate storm windows in sizes and shapes to match existing windows indicated on drawings.
- B. Frame and Sash Construction:
  - 1. Frame: All aluminum head, jamb and sill members for the master frame and all frame expanders shall have a minimum wall thickness of 0.050 ". All members to be extruded 6063-T6 aluminum assembled in a secure and workman like manner to assure lasting weather resistant construction. Frame joints shall be butt-type, neatly joined and secured by means of non-magnetic stainless steel screws anchored into integral screw ports. Vinyl weather-stripping and tracks shall be shaded from direct sunlight by the frame and sash members. The storm window shall be mounted by using four adjustable expanders, which securely slide over the master frame. All installation holes shall be pre-drilled the manufacturer.
  - 2. Sash: All sash members shall be extruded 6063-T6 aluminum with a minimum wall thickness of 0.055 ". Mitered corners shall be joined by non-magnetic stainless steel corner keys, securely peened on the inside of the sash insert. All sharp corners of the sash shall be deburred and smoothed. Sash meeting rails shall interlock in the closed position. All removable panels and operating sash shall have a full-length extruded lift handle as part of the sash rail. The lift handle shall project 7/16" to the interior to allow adequate area to maintain a sure finger grip. Note: Weather-stripping applied to or installed on the operating sash will not be permitted.
  - 3. Weep System: The sill expander shall have a minimum of two weep holes, uniformly positioned to allow for water to weep to the exterior of the storm window unit.
- C. Accessories:
  - 1. Storm windows shall be designed to replicate existing horizontal mullions.
  - 2. H-mulls: This accessory allows two or more storm windows or panels to be installed either horizontally or vertically in a single opening.
  - 3. Mullions and Transoms: Where two or more storm window frames adjoin each other horizontally or vertically, mullion or transom panning covers shall be used. Mull and transom covers shall incorporate a port for weather-sealing at the exterior.

- D. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation. Allow for scribing, trimming, and fitting at Project site.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill, and operational clearances.

#### **3.2 INSTALLATION**

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing storm windows, accessories, and other components.
- B. Install storm windows level, plumb, square, true to line, without distortion within the existing window, anchored securely in place.
- C. Apply sealant at perimeter of window frame. Provide single-component or multi-component, low-modulus, non-sag sealant; comply with ASTM C920, Type S or M, Grade NS, Class 25
- D. Install storm windows to be weather-tight and freely operating.
- E. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action (dissimilar materials, treated lumber, etc.) at points of contact with other materials.

#### **3.3 ADJUSTING, CLEANING, AND PROTECTION**

- A. Operate installed storm windows to assure a proper installation has occurred.
- B. Adjust operating sashes screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weathertight closure. Lubricate moving parts as recommended by manufacturer.
- C. Clean exposed surfaces immediately after installing storm windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- D. Clean factory-glazed glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.
- E. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- F. Protect storm window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

**END OF SECTION 085169**

## **SECTION 087100 – DOOR HARDWARE**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS:**

- A. Refer to "General and Special Conditions", and "Instructions to Bidders", Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.

#### **1.2 WORK INCLUDED:**

- A. Furnish all items of Finish Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.
- B. Related work:
  - 1. Division 1 - General Requirements
  - 2. Division 6 - Rough Carpentry
  - 3. Division 6- Finish Carpentry: Installation of Finish Hardware
  - 4. Division 8 - Steel Doors and Frames
  - 5. Division 8 - Wood Doors
  - 6. Division 28 - Smoke Detection Systems
  - 7. Division 8 - Access Panels
- C. Specific Omissions: Hardware for the following is specified or indicated elsewhere, unless specifically listed in the hardware sets:
  - 1. Cabinet Hardware.

#### **1.3 QUALITY ASSURANCE**

- A. Requirements of Regulatory Agencies:
  - 1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
  - 2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.
  - 3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.
- B. Hardware Supplier:

1. Shall be an established firm dealing in contract builders' hardware. He must have adequate inventory, qualified personnel on staff and be located within 100 miles of the project. The distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant (AHC).

**C. Pre-installation Meeting:**

1. Before hardware installation, General Contractor will request a hardware installation meeting be conducted on the installation of hardware; specifically that of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's representatives of the above products, in conjunction with the hardware supplier for the project, shall conduct the meeting. Meeting to be held at job site and attended by installers of hardware for hollow metal and wood doors. Meeting to address proper coordination and installation of hardware, per finish hardware schedule for this specific project, by using installation manuals, hardware schedule, templates, physical product samples and installation videos.
2. When any electrical or pneumatic hardware is specified this meeting shall also include the following trades/installers: Electrical, Security, Alarm systems and Architect.
3. Convene one week or more prior to commencing work of this Section.
4. The Hardware Supplier shall include the cost of this meeting in his proposal.

**D. Manufacturer:**

1. Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
2. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

**1.4 SUBMITTALS:**

**A. Hardware Schedule**

1. Submit number of Hardware Schedules as directed in Division 1.
2. Follow guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule unless noted otherwise.
3. Schedule will include the following:
  - a. Door Index including opening numbers and the assigned Finish Hardware set.
  - b. Preface sheet listing category only and manufacturer's names of items being furnished as follows:

| CATEGORY    | SPECIFIED      | SCHEDULED      |
|-------------|----------------|----------------|
| Hinges      | Manufacturer A | Manufacturer B |
| Lock sets   | Manufacturer X | Manufacturer X |
| Kick Plates | Open           | Manufacturer Z |

- c. Hardware Locations: Refer to Article 3.1 B.2 Locations.
- d. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
- e. Hardware Description: Quantity, category, product number, fasteners, and finish.
- f. Headings that refer to the specified Hardware Set Numbers.

- g. Scheduling Sequence shown in Hardware Sets.
- h. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
- i. Electrified Hardware system operation description.
- j. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
- k. Typed Copy.
- l. Double-Spacing.
- m. 8-1/2 x 11 inch sheets
- n. U.S. Standard Finish symbols or BHMA Finish symbols.

B. Product Data:

- 1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
- 2. Submit product data with hardware schedule.

C. Samples:

- 1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
- 2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

D. Key Schedule:

- 1. Submit detailed schedule indicating clearly how the Owner's final keying instructions have been followed.
- 2. Submit as a separate schedule.

E. Electrified Hardware Drawings:

- 1. Submit elevation drawings showing relationship of all electrical and pneumatic hardware components to door and frame. Indicate number and gage of wires required.
  - a. Include wiring drawing showing point to point wire hook up for all components.
  - b. Include system operations descriptions for each type of opening; describe each possible condition.

- F. Submit to General Contractor/Construction Manager, the factory order acknowledgement numbers for the various hardware items to be used on the project. The factory order acknowledgement numbers shall help to facilitate and expedite any service that may be required on a particular hardware item. General Contractor/Construction Manager shall keep these order acknowledgement numbers on file in the construction trailer.

## 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING:

- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver to the installer so designated by the contractor.

## 1.6 WARRANTIES:

- A. Refer to Division 1 for warranty requirements.
- B. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work. Replace work found to be defective as defined in the General Conditions.

## PART 2 - PRODUCT

### 2.1 PRODUCTS GENERAL:

- A. Furnish each category with the products of only one manufacturer unless specified otherwise; this requirement is mandatory whether various manufacturers are listed or not.

### 2.2 HARDWARE:

- A. Hardware General: Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, it is understood that this is the owner's Building Standard and "no substitution" is allowed.
- B. Hinges:
  - 1. Furnish hinges of class and size as listed in sets.
  - 2. Numbers used are Ives (IVE).
  - 3. Products of a BHMA member are acceptable.

#### C. Continuous Gear Hinge:

- 1. 6063-T6 aluminum alloy, anodized finish (cap on entire hinge painted if specified). Manufacture to template, uncut hinges non-handed, pinless assembly, three interlocking extrusions, full height of door and frame, lubricated polyacetal thrust bearing, fasteners 410 stainless steel plated and hardened. All hinge profiles to be manufactured to template bearing locations, with standard duty bearing configurations at 5-1/8" spacing with a minimum of 16 bearings; and heavy duty at 2-9/16" spacing with a minimum of 32 bearings. Anodizing of material shall be done after fabrication of components so that all bearing slots are anodized.
- 2. Length: 1" less than door opening height. Fastener 12-24 x 1/2" #3 Phillips keen form stainless steel self-tapping at aluminum and hollow metal doors, 12- 1/2" #3 Philips, flathead full thread at wood doors.
- 3. Furnish fire rated hinges "FR" at labeled openings.
- 4. Numbers used are Ives
  - a. For Wood and Hollow Metal frames;
    - 1) Ives 224HD
    - 2) Equal products by Select Products Limited will also be accepted.
  - b. For Aluminum and FRP frames;
    - 1) Ives 112HD
    - 2) Equal products by Select Products Limited will also be accepted.

D. Locksets and Latchsets - Mortise Type:

1. Locksets shall be manufactured from heavy gauge steel, minimum lockcase thickness 1/8", containing components of steel with a zinc dichromate plating for corrosion resistance.
2. Locks are to have a standard 2 3/4" backset with a full 3/4" throw two-piece stainless steel mechanical anti-friction latchbolt. Deadbolt shall be a full 1" throw, constructed of stainless steel.
3. Lockcase shall be easily handed without chassis disassembly by removing handing screw on lockcase and installing in opposite location on reverse side. Changing of door hand bevel from standard to reverse hand shall be done by removing the lockcase scalp plate, and pulling and rotating the latchbolt 180 degrees.
4. Lock trim shall be through-bolted to the door to assure correct alignment and proper operation. Lever trim shall have external spring cage mechanism to assist in support of the lever weight. Thumb turns shall have "EZ" thumbturn equal to Schlage L583-363.
5. Function numbers are Schlage.
  - a. Schlage L9000
  - b. Best 35H
  - c. Sargent 8200
6. Lockset Trim:
  - a. Schlage OME
  - b. Best Match Lever Design
  - c. Sargent Match Lever Design
7. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond door frame trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.

E. Locksets and Latchsets - Standard Duty Cylindrical Type:

1. Function numbers listed are Schlage.
2. Provide 2-3/4 inch backset.
  - a. Verify backset at existing doors scheduled to receive new hardware.
3. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond doorframe trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.
4. Locksets and Latchsets:
  - a. Falcon T Series with Q lever.
  - b. ~~Best 73K~~
  - c. ~~Sargent 7 Line~~
  - d. ~~Schlage AL~~
5. Lockset Trim:
  - a. Falcon Match Lever Design
  - b. ~~Best Match Lever Design~~
  - c. ~~Sargent Match Lever Design~~
  - d. ~~Schlage Omega~~

F. Roller Latches:

- a. Ives RL32
- b. Equal Product of Any B.H.M.A. manufacturer.

G. Exit Devices:

1. Exit devices shall be touchpad style, fabricated of brass, bronze, stainless steel, or aluminum, plated to the standard architectural finishes to match the balance of the door hardware.
2. All exit devices shall incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation. Touchpad shall extend a minimum of one half of the door width. All latchbolts to be deadlatching type, with a self-lubricating coating to reduce wear.
3. End-cap will be sloped to deflect any impact from carts and they shall be flush with the external mechanism case. End caps that overlap and project above the mechanism case are unacceptable. End cap shall utilize a two-point attachment to the mounting bracket.
4. Touchpad shall match exit device finish, and shall be stainless steel for US26, US26D, US28, US32, and US32D finishes. Only compression springs will be used in devices, latches, and outside trims or controls.
5. Plastic templates shall be included with each exit device to facilitate a quick, easy and accurate installation.
6. Strikes shall be roller type and come complete with a locking plate to prevent movement.
7. All rim and vertical rod exit devices shall have passed a 5 million(5,000,000) cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
8. All mortise exit devices shall have passed a 10 million(10,000,000)cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
9. Provide cylinder dogging on panic exit hardware where noted in hardware sets.
10. Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be UL labeled fire exit hardware.
11. Lever trim for exit devices shall be vandal-resistant type, which will travel to a 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.
12. Manufacturers:
  - a. Basis-of-Design Product: Subject to compliance with requirements, provide Von Duprin 99 Series (Series and function numbers as listed in sets) available manufacturers offering products that may be incorporated into the Work include the following:
    - 1) Yale, an ASSA ABLOY company.
13. Trim:
  - a. As specified in sets.
  - b. Levers to match lockset design where specified.

H. Electric Power Transfer:

1. Transfer power from door frame to edge of door, UL listed R4504.
2. Von Duprin EPT

I. Push and Pull Hardware:

1. Pull, Bi-Fold: Dummy Lever Trims. Levers to match lockset lever design.
2. Manufacturer: Provide push and pull hardware from any member of B.H.M.A.

J. Closers:

1. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1 1/4" in diameter, and double heat treated pinion shall be 1 1/16" in diameter with double D slab drive arm connection.
2. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.

3. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed, and backcheck.
4. All closers shall have solid forged steel main arms (and forged forearms for parallel arm closers).
5. Closers will have Powder coating finish certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
6. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
7. LCN Series as listed in sets.

**K. ADA Special Closers**

1. Where "Low Energy Power Operated Door" as defined by ANSI Standard A156.19 is indicated for doors required to be accessible to the disabled, provide electrically powered 4640 Series operators complying with the ADA requirements for opening force and time to close standards.
2. Full closing force shall be provided when the power or assist cycle ends.
3. Modular design, adjustments easily accessible from the front, UL listed for use on labeled doors.
4. Shall have "Second Chance" function to accommodate momentary resistance, "Breakaway" function in the electronically controlled clutch, "Soft Start" motor control function and "Maintain Hold-Open Switch" to hold the door open at 90 degree.
5. Shall have built in 12V and 24V power supply for actuators, card readers, electric strikes and magnetic door locks, inputs for both swing and stop side sensors and available to accept either 120VAC or 220VAC input power. All wiring connections between operator modules made by easy-to-handle electrical connectors. Shall comply with both UL and NEC requirements for Class 1 and Class 2 wiring by providing separate conduits for each.
6. Shall have seven independent electronic adjustments to tailor the operator for specific site conditions. Opening speed, holding force at 90 deg., sequential trigger and time delay, hold-open time at 90 deg., opening force, clutch "breakaway" force setting, electric strike trigger and time delay.
7. Shall have separate and independent adjustments for back check, main speed and latch speed.
8. Furnish actuators and other controls as shown in Hardware Sets.

**L. Overhead Holders and Stops:**

1. Type, function and fasteners must be same as Glynn-Johnson specified. Size per manufacturer's selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
  - a. Glynn-Johnson
  - b. Architectural Builders Hardware

**M. Kick Plates:**

1. Furnish .050 inches thick 8" high x door width less 1-1/2" at single doors and less 1" at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less 2".
2. Any BHMA manufacturing product meeting above is acceptable.

N. Bumpers:

1. Wrought, forged, or cast, approximately 2-1/2 inch diameter, convex or concave rubber center, concealed fasteners.
  - a. Ives WS402CCV
  - b. BHMA L02101.

O. Wall Stops:

1. Length to exceed projection of all other hardware. Provide with threaded studs and expansion shields for masonry wall construction. Install with slope at top.
  - a. Ives WS33
  - b. BHMA L12011 or L12021

P. Thresholds:

1. 1/4" high - 5" wide. Cope at jambs.
2. Furnish full wall opening width when frames are recessed.
3. Cope in front of mullions if thresholds project beyond door faces.
4. Furnish with non-ferrous Stainless Steel Screws and Lead Anchors.
  - a. National Guard as listed in sets
  - b. Equal of Zero or Reese or Pemko.

Q. Door Sweeps:

1. Surface Sweeps:
  - a. National Guard as listed in sets
  - b. Equal by Zero or Reese or Pemko.

R. Weather-stripping:

1. Apply to head and jamb stops.
2. Extruded aluminum all sides
  - a. National Guard as listed in sets
  - b. Equal by Zero or Reese or Pemko.

S. Smoke and Draft Control Seals:

1. Gaskets must comply with UBC7.2 (1997) Part 2, UL1784 (1995), and NFPA 105 (1999) for use on all 'S' labeled wood and hollow-metal Positive Pressure door assemblies.
2. Perimeter Seals:
  - a. National Guard 2525
  - b. Zero
  - c. Reese
3. Meeting Stile Astragal Seals:
  - a. National Guard 2525
  - b. Zero

- c. Reese
  - 4. Smoke Seals for doors with overlapping astragals:
    - a. National Guard 2525
    - b. Zero
    - c. Reese
  
- T. Door Knocker/Viewer:
  - 1. Permit 150-degree angle observance.
  - 2. Furnish Fire Rated type for UL listed doors
    - a. Ives U771 x U700
    - b. Equal product of any BHMA manufacturer
  
- U. Key Control:
  - 1. Key Cabinet
    - a. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3 way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150 percent of the number of locks required for the project.
    - b. Provide complete cross-index system set up by hardware supplier or Lockset manufacturers representative or Lockset Manufacturers authorized Service Center. Place keys on markers and hooks in the cabinet as determined by the final key schedule. Provide hinged panel type cabinet for wall mounting. Provide one each wall mounted key cabinet.
    - c. Telkee WC Series with key loan record system.
    - d. Supplier shall include the cost of this service in their proposal.
  
- V. Miscellaneous:
  - 1. Furnish items not categorized in the above descriptions but specified by manufacturer's names in Hardware Sets.
  
- W. Fasteners:
  - 1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.
  - 2. **Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.**

### 2.3 FINISHES:

- A. Generally, Dull Chrome, US26D / BHMA 626. Provide finish for each item as indicated in sets.

### 2.4 TEMPLATES AND HARDWARE LOCATION:

- A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
- B. Furnish metal template to frame/door supplier for continuous hinge.
- C. Refer to Article 3.1 B.2, Locations, and coordinate with templates.

## 2.5 CYLINDERS AND KEYING:

- A. All cylinders for this project will be supplied by one supplier regardless of door type and location.
- B. The Finish Hardware supplier will meet with Owner to finalize keying requirements and obtain keying instructions in writing including the delivery of final keys and cores.
  - 1. Supplier shall include the cost of this service in his proposal.
- C. Provide disposable or keyed construction cores for use during construction period as specified in sets. Permanent cores will be furnished to the Owner's Representative prior to occupancy. The Owner or Owner's Security Agent in conjunction with the supplying distributor shall remove construction cores and install final cores.
  - 1. Supplier shall include the cost of this service in his proposal.
- D. Permanent cylinders shall be keyed by a Certified Keying Center, combined in sets or subsets, master keyed or great grand master keyed, as directed by Owner. Permanent keys and cylinders shall be marked with the applicable blind code for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Patented". Keys and cylinder identification stamping to be approved by Architect and Owner.
- E. Equip locks and cylinders with patent protected, cylinders with nickel silver blocking pin to check for patented feature on keys. Provide a minimum of six pins with nickel silver bottom pins. Cylinders must allow for multiplex master keying, combined to Owner's instructions.
- F. Deliver all permanent keys, key blanks and other security keys as determined in keying meeting.
- G. Key Material: Provide manufacturer's standard embossed keys of nickel silver to ensure durability. Furnish keys in the following quantities:
  - a. 25 each Temporary construction keys.
  - b. 2 each Control Keys.
  - c. 4 each Master keys per master group.
  - d. 2 each Keys per cylinder.
- H. Available manufacturers: Subject to compliance with requirements, manufacturers offering the products which may be incorporated in the work include:
  - 1. Schlage Lock Company - Everest Patented Cylinders.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. General:

1. Install hardware according to manufacturers installations and template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.
2. Provide blocking/reinforcement for all wall mounted Hardware.
3. Reinforced hollow metal doors and frames and reinforced aluminum door and frames will be drilled and tapped for machine screws.
4. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.
5. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self-tapping. Use #13 or 3/16 drill for pilot.
6. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame height, applied with construction adhesive.
7. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Locations:

1. Dimensions are from finish floor to center line of items.
2. Include this list in Hardware Schedule.

| <u>CATEGORY</u>   | <u>DIMENSION</u>             |
|-------------------|------------------------------|
| Hinges            | Door Manufacturer's Standard |
| Levers            | Door Manufacturer's Standard |
| Roller Latch      | At Head                      |
| Pulls - Flush Cup | 46"                          |
| Wall Bumpers      | Centerline of Lever-handle   |

C. Final Adjustment:

1. Provide the services of a representative to inspect material furnished and its installation and adjustment, to make final hardware adjustment, and to instruct the Owner's personnel in adjustment, care and maintenance of hardware.
2. Locksets, closers and exit devices shall be inspected by the factory representative and adjusted after installation and after the HVAC system is in operation, to insure correct installation and proper adjustment in operation. The manufacturer's representative shall prepare a written report stating compliance, and also recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect with copies to the Contractor, hardware installer and building owner.

D. Technical and Warranty Information:

1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and

properly execute any warranty work that may be required on the various hardware items supplied on the project.

2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

### 3.2 HARDWARE SETS:

#### Hardware Group No. 01

For use on door(s):

ADA Unit Doors

Provide each SGL door(s) with the following:

| Quantity |     | Description         | Model Number   | Finish | Mfr |
|----------|-----|---------------------|----------------|--------|-----|
| 3        | EA  | HINGE               | 5BB1 4.5 X 4.5 | 652    | IVE |
| 1        | EA  | DEADLOCK            | D141B          | 626    | FAL |
| 1        | EA  | ENTRY LOCK          | T501B7D Q      | 626    | FAL |
| 1        | EA  | SURFACE CLOSER      | 1461 ST-1974   | 689    | LCN |
| 1        | EA  | OVERHEAD STOP       | 414S           | 630    | GLY |
| 2        | EA  | SFIC EV B CORE ONLY | 80-037         | 626    | SCH |
| 1        | EA  | WALL STOP           | WS402CCV       | 626    | IVE |
| 1        | EA  | KNOCKER/VIEWER      | U771 X U698    | 626    | IVE |
| 1        | SET | SEALS               | 2525B 17'      | TBD    | NGP |
| 1        | EA  | DOOR BOTTOM         | 254P 36"       | AL     | NGP |
| 1        | EA  | THRESHOLD           | 410 36"        | AL     | NGP |

PROVIDE INTUMESCENT SEALS IF NOT INCORPORATED INTO DOOR CONSTRUCTION

#### Hardware Group No. 02

For use on door(s):

Unit Doors

Provide each SGL door(s) with the following:

| Quantity |    | Description         | Model Number                 | Finish | Mfr |
|----------|----|---------------------|------------------------------|--------|-----|
| 1        | EA | DEADLOCK            | D141B                        | 626    | FAL |
| 1        | EA | ENTRY LOCK          | T501B7D Q                    | 626    | FAL |
| 2        | EA | SFIC EV B CORE ONLY | 80-037                       | 626    | SCH |
| 1        | EA | KNOCKER/VIEWER      | U771 X U698                  | 626    | IVE |
|          |    |                     | BALANCE OF HARDWARE EXISTING |        | EXI |

#### Hardware Group No. 03

For use on door(s):

FRONT DOOR

Provide each SGL door(s) with the following:

| Quantity | Description            | Model Number                         | Finish | Mfr |
|----------|------------------------|--------------------------------------|--------|-----|
| 1-1/2    | PR HINGE               | TO MATCH EXISTING STYLE AND TYPE     |        |     |
| 1        | EA DOOR CORD           | 798C-18                              |        | SCE |
| 1        | EA PANIC HARDWARE      | EL98NL 3'                            | 626    | VON |
| 1        | EA SFIC CONST CORE     | 80-035                               | GRN    | SCH |
| 1        | EA SFIC EV B CORE ONLY | 80-037                               | 626    | SCH |
| 1        | EA RIM CYLINDER        | 80-129                               | 626    | SCH |
| 1        | EA SURFACE CLOSER      | 4111 SCUSH                           | 689    | LCN |
| 1        | EA KICK PLATE          | 8400 8" X 1-1/2" LDW                 | 630    | IVE |
| 1        | EA DOOR SWEEP          | C627A 36"                            | CL     | NGP |
| 1        | EA THRESHOLD           | 425 SIA 36"                          | NS     | NGP |
| 1        | EA POWER SUPPLY        | PS914-2RS                            | GRY    | VON |
| 1        | SET ELEVATION DIAGRAMS | ELEVATION DIAGRAMS                   |        |     |
| 1        | EA CARD READER         | FURNISHED BY THE SECURITY CONTRACTOR |        | B/O |
| 1        | SET WIRING DIAGRAMS    | POINT TO POINT DIAGRAM               |        |     |

**OPERATIONAL DESCRIPTION:**

- 1.) THE DOORS SHALL BE NORMALLY CLOSED AND LOCKED.
- 2.) FREE EGRESS SHALL BE POSSIBLE AT ALL TIMES.
- 3.) THE CARD READER SHALL CONTROL THE LOCKING AND UNLOCKING OF THE OPENING.
- 4.) WHEN A VALID CARD IS PRESENTED TO THE CARD READER, THE LATCHBOLT ON THE EXIT DEVICE WILL RETRACT, UNLOCKING THE DOOR TO ALLOW ACCESS.
- 5.) WHEN THE STRIKE TIME ON THE CARD READER ELAPSES, POWER TO THE EXIT DEVICE WILL BE REMOVED, CAUSING THE LATCHBOLT TO EXTEND AND RESECURE THE OPENING.
- 6.) THE DOORS SHALL REMAIN LOCKED UPON LOSS OF POWER.

**Hardware Group No. 04**

**For use on door(s):**

BACK DOOR

**Provide each SGL door(s) with the following:**

| Quantity | Description             | Model Number         | Finish | Mfr |
|----------|-------------------------|----------------------|--------|-----|
| 1        | EA CONTINUOUS HINGE     | 224HD 79" EPT        | 628    | IVE |
| 1        | EA POWER TRANSFER       | EPT-10               | 689    | VON |
| 1        | EA PANIC HARDWARE       | EL LX-LC98NL 264 3'  | 626    | VON |
| 1        | EA SFIC CONST CORE      | 80-035               | GRN    | SCH |
| 1        | EA SFIC EV B CORE ONLY  | 80-037               | 626    | SCH |
| 1        | EA RIM CYLINDER         | 80-129               | 626    | SCH |
| 1        | EA AUTO-EQUALIZER       | 4642 REG             | 689    | LCN |
| 1        | EA OVERHEAD STOP        | 904S                 | 630    | GLY |
| 1        | EA KICK PLATE           | 8400 8" X 1-1/2" LDW | 630    | IVE |
| 1        | SET SEALS               | 700SA 1/36" 2/84"    | CL     | NGP |
| 1        | EA KNOCKER/VIEWER       | U771 X U698          | 626    | IVE |
| 1        | EA DRIP CAP             | 16A 40"              | CL     | NGP |
| 1        | EA DOOR SWEEP           | C627A 36"            | CL     | NGP |
| 1        | EA THRESHOLD            | 425 SIA 36"          | NS     | NGP |
| 1        | EA POWER SUPPLY         | PS914-2RS            | GRY    | VON |
| 1        | EA WEATHER RING         | 8310-801             |        | LCN |
| 2        | EA ACTUATOR, WALL MOUNT | 8310-853T            |        | LCN |

|   |     |                    |                                      |     |
|---|-----|--------------------|--------------------------------------|-----|
| 1 | EA  | BOLLARD POST       | 8310-866                             | LCN |
| 1 | EA  | SURFACE MOUNT BOX  | 8310-867S                            | LCN |
| 1 | SET | ELEVATION DIAGRAMS | ELEVATION DIAGRAMS                   |     |
| 1 | EA  | CARD READER        | FURNISHED BY THE SECURITY CONTRACTOR | B/O |
| 1 | SET | WIRING DIAGRAMS    | POINT TO POINT DIAGRAM               |     |

**NOTES:**

- 1.) THE 'LX-LC' SWITCH INSIDE THE EXIT DEVICE SHALL BE WIRED IN SERIES WITH THE EXTERIOR WALL ACTUATOR.
- 2.) THE INTERIOR WALL ACTUATOR SHALL ALWAYS BE ENABLED.

**OPERATIONAL DESCRIPTION:**

- 1.) THE DOOR SHALL BE NORMALLY CLOSED AND LOCKED.
- 2.) FREE EGRESS SHALL BE POSSIBLE AT ALL TIMES.
- 3.) THE CARD READER SHALL CONTROL THE LOCKING AND UNLOCKING OF THE OPENING.
- 4.) WHEN THE CARD READER GOES INTO AN UNLOCKED MODE, THE FOLLOWING SIMULTANEOUS ACTIONS WILL OCCUR:
  - A.) THE LATCHBOLT ON THE EXIT DEVICE WILL RETRACT, UNLOCKING THE DOOR.
  - B.) THE EXTERIOR WALL ACTUATOR WILL BE ENABLED.
- 5.) IN THIS UNLOCKED MODE, THE EXTERIOR WALL ACTUATOR CAN BE PUSHED TO ACTIVATE THE AUTOMATIC OPERATOR AND OPEN THE DOOR.
- 6.) WHEN THE CARD READER RETURNSE TO A LOCKED MODE, THE FOLLOWING ACTIONS WILL OCCUR:
  - A.) POWER TO THE EXIT DEVICE WILL BE REMOVED, CAUSING THE LATCHBOLT TO EXTEND AND RESECURE THE OPENING.
  - B.) THE EXTERIOR WALL ACTUATOR WILL BE DISABLED.
- 7.) IN THIS LOCKED MODE, THE INTERIOR WALL ACTUATOR CAN BE PUSHED TO RETRACT THE LATCHBOLT ON THE EXIT DEVICE AND ACTIVATE THE AUTOMATIC OPERATOR.

**Hardware Group No. 05**

**For use on door(s):**

Bathrooms

**Provide each SGL door(s) with the following:**

| Quantity | Description    | Model Number   | Finish | Mfr |
|----------|----------------|----------------|--------|-----|
| 3        | EA HINGE       | 5BB1 4.5 X 4.5 | 652    | IVE |
| 1        | EA CORE        | 80-037         |        | SCH |
| 1        | EA PRIVACY SET | B301           | 626    | SCH |
| 1        | EA WALL STOP   | WS402CCV       | 626    | IVE |
| 3        | EA SILENCER    | SR65           | GRY    | IVE |

**Hardware Group No. 06**

**For use on door(s):**

ADA Closets

**Provide each PR door(s) with the following:**

| Quantity | Description       | Model Number | Finish | Mfr |
|----------|-------------------|--------------|--------|-----|
| 6        | EA HINGE          | 5PB1 4.5 X 4 | 652    | IVE |
| 2        | EA SGL DUMMY TRIM | B12          | 626    | SCH |

2 EA ROLLER LATCH RL32 (TOP MOUNT) 626 IVE

**Hardware Group No. 07**

**For use on door(s):**

Closets

**Provide each SGL door(s) with the following:**

| Quantity | Description    | Model Number   | Finish | Mfr |
|----------|----------------|----------------|--------|-----|
| 3        | EA HINGE       | 5BB1 4.5 X 4.5 | 652    | IVE |
| 1        | EA PASSAGE SET | B101           | 626    | SCH |
| 1        | EA CORE        | 80-037         |        | SCH |
| 1        | EA WALL STOP   | WS402CCV       | 626    | IVE |
| 3        | EA SILENCER    | SR65           | GRY    | IVE |

**Hardware Group No. 08**

**For use on door(s):**

Laundry Room Janitor Closet

**Provide each SGL door(s) with the following:**

| Quantity | Description       | Model Number                 | Finish | Mfr |
|----------|-------------------|------------------------------|--------|-----|
| 1        | EA STOREROOM LOCK | B581                         | 626    | SCH |
| 1        | EA CORE           | 80-037                       |        | SCH |
|          |                   | BALANCE OF HARDWARE EXISTING |        | EXI |

**Hardware Group No. 09**

**For use on door(s):**

Office Computer Room

**Provide each SGL door(s) with the following:**

| Quantity | Description       | Model Number                 | Finish | Mfr |
|----------|-------------------|------------------------------|--------|-----|
| 1        | EA STOREROOM LOCK | B511                         | 626    | SCH |
| 1        | EA CORE           | 80-037                       |        | SCH |
|          |                   | BALANCE OF HARDWARE EXISTING |        | EXI |

**Hardware Group No. 10**

**For use on door(s):**

Basement

**Provide each SGL door(s) with the following:**

| Quantity | Description       | Model Number       | Finish | Mfr |
|----------|-------------------|--------------------|--------|-----|
| 3        | EA HINGE          | 5BB1 4.5 X 4.5 NRP | 652    | IVE |
| 1        | EA PANIC HARDWARE | LD-99L-2 996L 3'   | 626    | VON |
| 1        | EA RIM CYLINDER   | 80-129             | 626    | SCH |
| 1        | EA CORE           | 80-037             |        | SCH |
| 1        | EA SURFACE CLOSER | 1461 ST-1974       | 689    | LCN |
| 1        | EA MOUNTING PLATE | 1460-18            | 689    | LCN |

|   |     |               |                   |     |     |
|---|-----|---------------|-------------------|-----|-----|
| 1 | EA  | OVERHEAD STOP | 104S              | 630 | GLY |
| 1 | EA  | KICK PLATE    | 8400 8" X 34-1/2" | 630 | IVE |
| 1 | SET | SEALS         | 160S 1/36" 2/84"  | AL  | NGP |
| 1 | EA  | DOOR BOTTOM   | 36EV 36"          | AL  | NGP |
| 1 | EA  | THRESHOLD     | 513 36"           | AL  | NGP |

**Hardware Group No. 11**

**For use on door(s):**

Lift

**Provide each SGL door(s) with the following:**

| <b>Quantity</b> | <b>Description</b> | <b>Model Number</b>          | <b>Finish</b> | <b>Mfr</b> |
|-----------------|--------------------|------------------------------|---------------|------------|
| 1               | EA STOREROOM LOCK  | B511                         | 626           | SCH        |
|                 |                    | BALANCE OF HARDWARE EXISTING |               | EXI        |

**END OF SECTION 087100**

## **ADDENDUM NO. 02 – MECHANICAL, ELECTRICAL AND PLUMBING**

**DATE:** **August 9, 2011**

**PROJECT:** **Burton Apartments**  
821 N. Pennsylvania Street  
Indianapolis, Indiana 46202

**JOCEI PROJECT NUMBER:** **11061**

**ARCHITECT:** **Axis Architecture & Interiors**  
618 E. Market Street  
Indianapolis, Indiana 46202  
Phone: (317) 264-8162, Fax: (317) 264-8165

**MECHANICAL, ELECTRICAL  
PLUMBING ENGINEER:** **John Oberlies Consulting Engineers, Inc.**  
10 S. New Jersey Street, Suite 320  
Indianapolis, Indiana 46204  
Phone: (317) 636-3941, Fax: (317) 636-3963

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This Addendum issued in accordance with the provisions of The Project Manual for Construction, dated July 29, 2011, and becomes a part of the Contract Documents as provided therein. The information contained herein modifies the original Bidding Documents dated July 29, 2011 and all prior Addenda as applicable. Requirements of the original Bidding Documents and previous Addenda remain in effect except as modified by this Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

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### **DRAWINGS:**

1. Sheet E101 –Electrical Plans
  - a. Contractor shall add power for handicap door operators and push plates to the back door of the apartment building. Refer to the Architectural drawings for exact locations. Connect to House panel HP-12.
  - b. Omit boxed notes Apartment Door Entry System and the Existing doorbell system.
  - c. Add new boxed note: “Provide rough-in only for Apartment Door Entry System and Security System in locations as indicated on the drawings. Actual devices and wiring by Owners Contractor.”
  
2. Sheet E102 –Electrical Plans
  - a. Omit boxed notes Apartment Door Entry System and the Existing doorbell system.
  - b. Add new boxed note: “Provide rough-in only for Apartment Door Entry System and Security System in locations as indicated on the drawings. Actual devices and wiring by Owners Contractor.”

END OF MEP ADDENDUM NO. 02