

**ADDENDUM No. 1**  
  
**FOR**  
  
**LINK – Multi-Use Development**  
  
**BID PACKAGE – All Trades**

**April 11, 2023**

**ADDENDUM No. 1**

**FOR**

**LINK – Multi-Use Development**

**BID PACKAGE – All Trades**

Date of Issue: April 11, 2023

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**This Addendum is issued before bid date to inform the Bidders of revisions and/or clarifications to the Project Bid 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 issued for bidding 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 on your bid proposal. Failure to do so may subject bidder to disqualification.**

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**To: ALL BIDDERS – The following specifications have been added to the Bidding Documents.**

- ITEM-1 ADD SPECIFICATION SECTION 087100 – DOOR HARDWARE – DOOR INDEX**
  - ITEM-2 ADD SPECIFICATION SECTION 087100 – DOOR HARWARE**
  - ITEM-3 ADD SPECIFICATION SECTION 088000 – GLAZING**
  - ITEM-4 ADD SPECIFICATION SECTION 088300 – MIRRORS**
  - ITEM-5 ADD SPECIFICATION SECTION 088813 – FIRE-RESISTANT GLAZING**
  - ITEM-6 ADD SPECIFICATION SECTION 089119 – FIXED LOUVERS**
  - ITEM-7 REPLACE PREVIOUSLY ISSUED ATTACHMENT 07 WITH UPDATED ATTACHMENT 07 DATED 04-11-2023**
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23050 – LINK  
Gershman Partners  
Addendum No. 1

**ATTACHMENTS:**

- A.** Specification Section 087100 – Door Hardware – Door Index
- B.** Specification Section 087100 – Door Hardware
- C.** Specification Section 088000 – Glazing
- D.** Specification Section 088300 – Mirrors
- E.** Specification Section 088813 – Fire-Resistant Glazing
- F.** Specification Section 089119 – Fixed Louvers
- G.** Attachment 07 – Contract Documents Log (Drawings & Specifications)

**END OF ADDENDUM NO. 1**

Door#	HwSet#
002	32
100-1	41
101	05
102	39
102A	39
102B	39
103	17
103A	41
104	08
104M	24
105	42
106	41
107	36
107A	07
108	35
108M	21
109	13
109A	41
110	39
110A	40
111	39
111A	40
112	30
113	18
114	39
114A	01
116	22
118	12
119	16
120	02
121	10
122	28
123	24
124	39
124A	40
124B	NOTFOUND
125M	24
126M	24
126M	08
127M	23
128M	23
129M	23
130M	23
131M	23
132M	23
133M	23

Door#	HwSet#
135M	08
136M	14
137M	15
138M	09
139M	27
140M	03
141M	25
142M	24
143M	24
144M	30
145M	20
150	08
151	25
205	33
207	04
209	33
210	33
211	33
212	19
213	11
214	26
215	12
216	24
217	24
219	04
220	24
221	26
222	11
223	12
224	28
225	12
226	26
227	14
228	24
229	24
230	31
231	23
232	23
233	23
234	23
235	23
236	23
237	23
238	23
239	23
240	23

Door#	HwSet#
241	23
242	23
243	23
244	23
245	15
246	24
247	24
249	29
250	24
305	33
308	33
312	11
313	24
314	24
315	14
316	24
317	24
318	31
319	15
320	24
405	33
408	33
411	11
412	24
413	14
414	24
415	24
416	31
417	15
418	24
505	33
508	33
511	11
512	24
513	14
514	24
515	24
516	31
517	15
518	24
A	U02
B	U02
C	U03
D	U05
E	U03
F	U03

Door#	HwSet#
G	U03
H	U03
J	U03
K	U04
MISC	MISC
P	U07
P2	U06
ST-10	37
ST-11	34
ST-11A	37
ST-12	36
ST-13	36
ST-14	36
ST-15	36
ST-21	34
ST-21M	35
ST-22	36
ST-23	36
ST-24	36
ST-25	36
ST-30	35
ST-31	36
ST-31A	38
ST-31M	36
ST-32	36
ST-33	36
ST-34	36
ST-35	36
ST-36	NOTFOUND
ST-41	36
ST-41A	06
ST-41M	36
ST-42	36
ST-43	36
ST-44	36
ST-45	36
U101	U01
U102	U01
U103	U01
U104	U01
U105	U01
U106	U01
U107	U01
U108	U01
U109	U01
U110	U01

Door#	HwSet#
U111	U01
U112	U01
U113	U01
U114	U01
U115	U01
U116	U01
U117	U01
U118	U01
U119	U01
U120	U01
U121	U01
U122	U01
U123	U01
U124	U01
U201	U01
U201A	U06
U202	U01
U202A	U06
U203	U01
U203A	U06
U204	U01
U204A	U06
U206	U01
U208	U01
U210	U01
U211	U01
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U217	U01
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U233	U01
U234	U01

Door#	HwSet#
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U240	U01
U241	U01
U242	U01
U243	U01
U244	U01
U245	U01
U246	U01
U248	U01
U248A	U06
U301	U01
U301A	U06
U302	U01
U302A	U06
U303	U01
U303A	U06
U304	U01
U304A	U06
U305	U01
U306	U01
U307	U01
U308	U01
U309	U01
U310	U01
U311	U01
U312	U01
U313	U01
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U323	U01
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U325	U01
U326	U01
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U328	U01
U329	U01
U330	U01
U331	U01
U332	U01

Door#	HwSet#
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U334	U01
U335	U01
U336	U01
U338	U01
U340	U01
U341	U01
U342	U01
U343	U01
U344	U01
U345	U01
U346	U01
U347	U01
U348	U01
U348A	U06
U349	U01
U349A	U06
U401	U01
U401A	U06
U402	U01
U402A	U06
U403	U01
U403A	U06
U404	U01
U404A	U06
U405	U01
U406	U01
U407	U01
U408	U01
U409	U01
U410	U01
U411	U01
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U416	U01
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U418	U01
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U422	U01
U423	U01
U424	U01
U425	U01

Door#	HwSet#
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U427	U01
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U429	U01
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U431	U01
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U439	U01
U440	U01
U441	U01
U442	U01
U443	U01
U444	U01
U445	U01
U446	U01
U447	U01
U448	U01
U448A	U06
U449	U01
U449A	U06
U501	U01
U501A	U06
U502	U01
U502A	U06
U503	U01
U503A	U06
U504	U01
U504A	U06
U505	U01
U506	U01
U507	U01
U508	U01
U509	U01
U510	U01
U511	U01
U512	U01
U513	U01
U514	U01
U515	U01
U516	U01

Door#	HwSet#
U517	U01
U518	U01
U519	U01
U520	U01
U521	U01
U522	U01
U523	U01
U524	U01
U525	U01
U526	U01
U527	U01
U528	U01
U529	U01
U530	U01
U531	U01
U532	U01
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U539	U01
U540	U01
U541	U01
U542	U01
U543	U01
U544	U01
U545	U01
U546	U01
U547	U01
U548	U01
U548A	U06
U549	U01
U549A	U06



## **SECTION 08 71 00 – DOOR HARDWARE**

### **PART 1 - GENERAL**

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes:

- 1. Mechanical and electrified door hardware for:
  - a. Swinging doors.
- 2. Electronic access control system components, including:
  - a. Electronic access control devices.
- 3. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

- B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:

- 1. Windows
- 2. Cabinets (casework), including locks in cabinets
- 3. Signage
- 4. Toilet accessories
- 5. Overhead doors

- C. Related Sections:

- 1. Division 01 Section "Alternates" for alternates affecting this section.
- 2. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
- 3. Division 26 sections for connections to electrical power system and for low-voltage wiring.
- 4. Division 28 sections for coordination with other components of electronic safety and security systems.



### 1.03 REFERENCES

A. UL - Underwriters Laboratories

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Key Systems and Nomenclature

C. ANSI - American National Standards Institute

1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

### 1.04 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, "EXAMINATION" article, herein.

B. Action Submittals:

1. Product Data: Technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
  - a. Wiring Diagrams: For power, signal, and control wiring and including:
    - 1) Details of interface of electrified door hardware and building safety and security systems.
    - 2) Schematic diagram of systems that interface with electrified door hardware.
    - 3) Point-to-point wiring.
    - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated, and tagged with full description for coordination with schedule.





- a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
  - a. Door Index; include door number, heading number, and Architects hardware set number.
  - b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
  - c. Quantity, type, style, function, size, and finish of each hardware item.
  - d. Name and manufacturer of each item.
  - e. Fastenings and other pertinent information.
  - f. Location of each hardware set cross-referenced to indications on Drawings.
  - g. Explanation of all abbreviations, symbols, and codes contained in schedule.
  - h. Mounting locations for hardware.
  - i. Door and frame sizes and materials.
  - j. Name and phone number for local manufacturer's representative for each product.
  - k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include operational descriptions for: egress, ingress (access), and fire/smoke alarm connections.
  - l. Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.
5. Key Schedule:
  - a. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
  - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
  - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
  - d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
  - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.
    - 1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
  - f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.



6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory or shop prepared for door hardware installation.

C. Informational Submittals:

1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
2. Product data for electrified door hardware:
  - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
3. Certificates of Compliance:
  - a. UL listings for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
  - b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in "QUALITY ASSURANCE" article, herein.
  - c. Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in "QUALITY ASSURANCE" article, herein.
4. Warranty: Special warranty specified in this Section.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
  - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
  - b. Catalog pages for each product.
  - c. Factory order acknowledgement numbers (for warranty and service)
  - d. Name, address, and phone number of local representative for each manufacturer.
  - e. Parts list for each product.
  - f. Final approved hardware schedule, edited to reflect conditions as-installed.
  - g. Final keying schedule
  - h. Copies of floor plans with keying nomenclature
  - i. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
  - j. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

## 1.05 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. Supplier:**

**1. Mechanical Hardware**

- a. Shall be an established firm dealing in contract builders' hardware. Distributor 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).
- b. Door Hardware distributor/supplier listed on the Bid Form shall be a factory authorized distributor for the hardware specified. This requirement will not be allowed to be met by a non-factory authorized dealer subcontracting to a factory authorized dealer. Any submitted bid that attempts to circumvent this requirement will be considered non-response and will be removed from consideration.

**2. Electrified Hardware:**

- a. Shall be an experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials. The supplier must be a factory-authorized distributor for all materials required.
- b. Shall prepare data for electrified door hardware, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this project.
- c. Shall have experience in providing consulting services for electrified door hardware installations.

**C. Installer Qualifications:**

1. Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.

**D. Architectural Hardware Consultant Qualifications:** Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:



1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
  2. Can provide installation and technical data to Architect and other related subcontractors.
  3. Can inspect and verify components are in working order upon completion of installation.
  4. Capable of producing wiring diagrams.
  5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
- E. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
- F. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- G. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- H. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
- I. Keying Conference
1. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
    - a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
    - b. Preliminary key system schematic diagram.
    - c. Requirements for key control system.
    - d. Requirements for access control.
    - e. Address for delivery of keys.
  2. Attendees of Keying Conference: Owner, Contractor, Architect, Installer, Owner's security consultant and Supplier's Architectural Hardware Consultant.
- J. Pre-installation Conference
1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  2. Inspect and discuss preparatory work performed by other trades.
  3. Inspect and discuss electrical roughing-in for electrified door hardware.
  4. Review sequence of operation for each type of electrified door hardware.
  5. Review required testing, inspecting, and certifying procedures.
- K. Coordination Conferences:



1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
  1. Deliver each article of hardware in manufacturer's original packaging.
- C. Project Conditions:
  1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
  2. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- D. Protection and Damage:
  1. Promptly replace products damaged during shipping.
  2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
  3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- E. Deliver keys and permanent cores to Owner's Representative by registered mail or overnight package service.

#### 1.07 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.



- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

#### 1.08 WARRANTY

- A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Beginning from date of Substantial Completion, for durations indicated.
    - a. Closers:
      - 1) Mechanical: 10 year
    - b. Exit Devices:
      - 1) Mechanical: 10 years.
      - 2) Electrified: 1 year.
    - c. Locksets:
      - 1) Mechanical: 10 year.
      - 2) Electrified: 1 year.
    - d. Continuous Hinges: Lifetime warranty.
    - e. Key Blanks: Lifetime
  - 2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

#### 1.09 MAINTENANCE

- A. Maintenance Tools: Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

### **PART 2 - PRODUCTS**

#### 2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to insure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
  - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.



- B. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

## 2.02 MATERIALS

### A. Fasteners

- 1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
  - 2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
  - 3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.
  - 4. Install hardware with fasteners provided by hardware manufacturer.
- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
    - 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

## 2.03 HINGES

### A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Ives 5BB series.
- 2. Acceptable Manufacturers and Products: Hager BB series, McKinney TA/T4A series, Stanley FBB Series.

### B. Requirements:

- 1. Provide hinges conforming to ANSI/BHMA A156.1.
- 2. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
  - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high



- b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
- 3. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
  - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
  - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 4. 2 inches or thicker doors:
  - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
  - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 5. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
- 6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
  - a. Steel Hinges: Steel pins
  - b. Non-Ferrous Hinges: Stainless steel pins
  - c. Out-Swinging Exterior Doors: Non-removable pins
  - d. Out-Swinging Interior Lockable Doors: Non-removable pins
  - e. Interior Non-lockable Doors: Non-rising pins
- 7. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.

## 2.04 SPRING HINGES

### A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Ives 3SP1 series
- 2. Acceptable Manufacturers and Products: Best 2060 series, Hager 1250 series, McKinney 1502 series.

### B. Requirements:

- 1. Provide hinges conforming to ANSI/BHMA A156.1.
- 2. Provide 3 knuckle, steel based, spring full mortise hinges.
- 3. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
- 4. Provide two spring hinges and one bearing hinge per door leaf for doors 90 inches (2286 mm) or less in height.
- 5. Door over 90 inches in height require hinges to be listed for the scheduled door size. Provide one additional hinge for each 30 inches of additional door height of the type required by the spring hinge listing.
- 6. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.





## 2.05 ELECTRIC POWER TRANSFER

- A. Manufacturers:
  - a. Scheduled Manufacturer: Von Duprin EPT-10.
  - b. Acceptable Manufacturers: ABH PT1000, Securitron CEPT-10.
- B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.
- C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

## 2.06 PIVOT SETS

- A. Manufacturers:
  - 1. Scheduled Manufacturer: Ives.
  - 2. Acceptable Manufacturers: Dorma, Rixson.
- B. Requirements:
  - 1. Provide pivot sets complete with oil-impregnated top pivot, unless indicated otherwise.
  - 2. Where offset pivots are specified, Provide one intermediate pivot for doors less than 91 inches (2311 mm) high and one additional intermediate pivot per leaf for each additional 30 inches (762 mm) in height or fraction thereof. Intermediate pivots spaced equally not less than 25 inches (635 mm) or not more than 35 inches (889 mm) on center, for doors over 121 inches (3073 mm) high.
  - 3. Provide appropriate model where pivot sets are scheduled at fire rated openings.

## 2.07 FLUSH BOLTS

- A. Manufacturers:
  - 1. Scheduled Manufacturer: Ives.
  - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
  - 1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

**2.08 COORDINATORS****A. Manufacturers:**

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

**B. Requirements:**

1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

**2.09 ELECTRONIC PROGRAMMABLE****A. Manufacturers and Products:**

1. Scheduled Manufacturer and Product: Schlage.
2. Acceptable Manufacturers and Products: No Substitute.

**B. Product: Schlage BE467F electronic deadbolt.**

1. Provide a programmable stand-alone Electronic Deadbolt that is computer managed. Deadbolt to conform to ANSI A156.5-2000 grade 2 and ANSI/BHMA certified.
2. Provide programmable electronic with the following:
  - a. Time and Date controlled access.
  - b. Up to 500 user.
  - c. 1000 event Audit Trail report.
  - d. 8 time zone capability
  - e. Compatible with STRATIS Energy & Access Management & Control System.
3. Provide deadbolts with standard 2-3/4 inches (70 mm) backset. Provide 2-3/8 inches (60 mm) where noted or if door or frame detail requires. Provide deadbolt with full 1 inch (25 mm) throw, constructed of steel alloy.
4. Provide entry by a Keyfob that supports aptiQ MIFARE classic, aptiQ DESFire EV1 and aptiQmobile credentials.
5. Provide power by four (4) AA batteries (included) where if loss of battery power occurs, a 9V battery can be used to jump start the lock and provide access with an assigned credential. Battery life of 2 years in OFF-LINE MODE.

**C. Requirements**

1. Provide programmable electronic deadbolts with the following:
  - a. Time and Date controlled access.



- b. Up to 500 user.
  - c. 1000 event Audit Trail report.
  - d. 8 time zone capability
  - e. Compatible with STRATIS Energy & Access Management & Control System.
- 2. Provide entry by a Keyfob that supports aptiQ MIFARE classic, aptiQ DESFire EV1 and aptiQmobile credentials.
  - 3. Provide power by four (4) AA batteries (included), where if loss of battery power occurs, a 9V battery can be used to jump start the lock and provide access with an assigned credential. Battery life of 2 years in OFF-LINE MODE.

#### D. Components

- 1. Keyfob, 13.56 MHz and 26-bit Combination Smart and Proximity Credential
  - a. Manufacturer and Product:
    - 1) Schlage 9691T Combo Keyfob
  - b. Requirements:
    - 1) Provide access key fobs used with access readers to gain entry to access control portals (e.g. doors, gates, turnstiles) and to hold information specific to the user.
    - 2) Provide fobs with 26-bit proximity capability.
    - 3) Provide fobs functioning at ISO 14443A standards. Smart Credentials operate on a 13.56 MHz frequency and utilize high security encrypted data.
    - 4) Provide fobs supporting MIFARE or MIFARE DESFire EV1 technology.
    - 5) Presentation to the access control reader at any angle within a minimum distance of one (1) inch shall result in an accurate reading of the fob.
    - 6) Provide fobs composed of polycarbonate material.
- 2. Keyfob Construction
  - a. Manufacturer and Product:
    - 1) Schlage 9651 (CT8X4248) Keyfob
  - b. Requirements:
    - 1) Smart credential Keyfob as above but pre-configured for construction to work with locks out of the box.
- 3. Credential Enrollment Reader
  - a. Manufacturer and Product:
    - 1) Schlage aptiQ MT20W
  - b. Requirements:
    - 1) Unit provides simplified credential enrollment via computer connect. USB connection is for power only, enrollment uses Wi-Fi connection.
    - 2) Multi-technology enrollment reader is designed to simplify the enrollment of proximity and smart credentials. The reader is powered by a USB cable via computer's USB



port and utilizes a Wi-Fi connection for certain scenarios (enrolling no-tour credentials).

- 3) The unit is compatible with smart credentials (MIFARE Classic and FIFARE DESFire EV1), aptiQmobile credentials, PIV credentials and most proximity credentials up to 37-bits. The unit supports no-tour (with supported locks) via aptiQ MIFARE Classic or MIFARE DESFire EV1 credentials.

## 2.10 CYLINDRICAL LOCKS – GRADE 1 AT EXTERIOR

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon T series.
2. Acceptable Manufacturers and Products: BEST 9K series, Sargent 10-Line.

### B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3 hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
  - a. Lever Design: Falcon Longitude

## 2.11 CYLINDRICAL LOCKS – GRADE 2 AT INTERIOR COMMON AREAS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon W series.
2. Acceptable Manufacturers and Products: Best 73KC series, Sargent 6500 series.

### B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2, and UL Listed for 3 hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.



6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
  - a. Lever Design: Falcon Longitude

## 2.12 TUBULAR LOCKS – GRADE 2 AT UNITS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage F series.
2. Acceptable Manufacturers and Products: Sargent DL series, Yale YH collection.

### B. Requirements:

1. Provide tubular locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2, Grade 2 and ANSI/BHMA A156.39 Residential Grade AAA, and UL Listed for 3 hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/8 inches (60 mm) adjustable to 2-3/4 inches (70 mm) backset with 1/2 inch (13 mm) latch throw. Provide 2-3/4 inches (70 mm) backset, unless 2-3/8 inches (60 mm) is required by door or frame detail, or noted otherwise.
4. Provide locksets that fit standard 2-1/8 inches (54 mm) diameter bore without use of thru-bolts.
5. Door Thickness: Locksets adjustable to fit in 1-3/8 inches (35 mm) or 1-3/4 inches (44 mm) door thickness.
6. Provide standard T-strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
  - a. Lever Design: Schlage Latitude

## 2.13 TUBULAR LOCKS – GRADE 3 AT UNITS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage J series.
2. Acceptable Manufacturers and Products: Hager 3300 series, PDQ Industries SM series.

### B. Requirements:

1. Provide tubular locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 3, and UL Listed for 3 hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/8 inches (60 mm) adjustable to 2-3/4 inches (70 mm) backset with 1/2 inch (13 mm) latch throw. Provide 2-3/4 inch (70 mm) backset, unless 2-3/8 inches (60 mm) is required by door or frame detail, or noted otherwise.
4. Provide locksets that fit standard 2-1/8 inches (54 mm) diameter bore without the use of thru-bolts.
5. Locksets adjustable to fit in 1-3/8 inches (35 mm) or 1-3/4 inches (44 mm) door thickness.



6. Provide standard T-strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
  - a. Lever Design: Schlage Solstice

## 2.14 AUXILIARY LOCKS

### A. Deadbolts:

1. Manufacturers and Products:
  - a. Scheduled Manufacturer and Product: Schlage B60 Series.
  - b. Acceptable Manufacturers and Products: Best T Series, Falcon D100 Series, Sargent 480 Series.
2. Requirements:
  - a. Provide deadbolt series conforming to ANSI/BHMA A156 and function as specified.
  - b. Cylinders: Refer to "KEYING" article, herein.
  - c. Provide deadbolts with standard 2-3/4 inches (70 mm) backset. Provide 2-3/8 inches (60 mm) where noted or if door or frame detail requires. Provide deadbolt with full 1 inch (25 mm) throw, constructed of steel alloy.
  - d. Provide manufacturer's standard strike.

### B. Aluminum Door Deadbolt - Narrow Style:

1. Manufacturers and Products:
  - a. Scheduled Manufacturer and Product: Adams Rite MS1850 Series.
  - b. Acceptable Manufacturers and Products: No Substitute.
2. Requirements:
  - a. Provide narrow style aluminum door deadbolts as specified.
  - b. Cylinders: Refer to "KEYING" article, herein.
  - c. Provide deadbolts with necessary backset with full 1-13/32 inches (36 mm) throw deadbolt.
  - d. Provide manufacturer's standard strikes unless extended lip strikes are necessary to protect trim.

## 2.15 EXIT DEVICES

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon 24/25 series.
2. Acceptable Manufacturers and Products: Sargent 19-43-GL-80 series, Precision Apex series.

### B. Requirements:



1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide flush end caps for exit devices.
7. Provide exit devices with manufacturer's approved strikes.
8. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
9. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
10. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
11. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
13. Provide electrified options as scheduled.
14. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

## 2.16 ELECTRONIC ACCESS CONTROL LOCKSETS AND EXIT DEVICE TRIM

### A. Manufacturers:

1. Scheduled Manufacturer and Product: Schlage CO Series.
2. Acceptable Manufacturers and Products: No Substitute.

### B. Product: Schlage CO-100-CY standalone bored-type electronic lockset.

1. Provide bored cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, non-handed, field-reversible.
2. Backset: [2-3/4-inch (70 mm)] [2-3/8-inch (60 mm)] [3-3/4-inch (95 mm)] [5-inch (127 mm)].
3. Latchbolt Throw: 1/2-inch (13 mm) unless noted otherwise. Provide 3/4-inch (19 mm) throw for UL listing at pairs.
4. Chassis: Standard 161 cylindrical lock prep for 1-3/4-inch (44 mm) doors <

### C. Requirements:

1. Provide offline electronic access control products that comply with the following requirements:



- a. Listed, UL 294 - The Standard of Safety for Access Control System Units.
  - b. Compliant with ANSI/BHMA A156.25 Grade 1 Operation and Security.
  - c. Certified to UL10C, FCC Part15, Florida Building Code Standards TAS 201 large missile impact, TAS 202 and TAS 203.
  - d. Compliant with ASTM E330 for door assemblies.
  - e. Compliant with ICC / ANSI A117.1, NFPA 101, NFPA 80, and Industry Canada RSS-210.
2. Functions: Provide functions as scheduled that are field configurable without taking the offline electronic product off the door.
3. Emergency Override: Provide mechanical key override; cylinders: Refer to "KEYING" article, herein.
4. Levers:
  - a. Vandal Resistance: Exterior (secure side) lever rotates freely while door remains locked, preventing damage to internal lock components from vandalism by excessive force.
  - b. Provide non-handed lever trim that operates independently of non-locking levers.
  - c. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.
5. Power Supply: 4 AA batteries
  - a. Provide electronic access control locks and/or exit device trim with the ability to communicate battery status.
6. Features:
  - a. Visual tri-colored LED indicators that indicate activation, operational systems status, system error conditions and low power conditions.
  - b. Visual bi-colored LED indicator on interior that is capable of indicating secured/unsecured status of device to occupants on interior.
  - c. Audible feedback that can be enabled or disabled.
  - d. Onboard processor with memory capacity of 2,000 users, 2,000 event audit history, up to 16 time zones and up to 32 calendar events.
  - e. Tamper-Resistant Screws: Tamper torx screws on inside escutcheon for increased security.
7. Switches:
  - a. Mechanical Key Override
8. Credential Reader:
  - a. Credential Reader Configurations:
    - 1) Keypad.
  - b. Credential Reader Capabilities: Provide credential readers capable of operating with the following integrated software partners.
    - 1) 12 button keypad with backlit buttons.
9. Operation:





- a. Provide electronic access control locks and/or exit device trim with the ability to be configured at door by handheld programming device the length of time device is unlocked upon access grant.
- b. Provide electronic access control locks and/or exit device trim with the ability to communicate identifying information such as firmware versions, hardware versions, serial numbers, and manufacturing dates by handheld programming device.

**D. Components**

1. Product: Schlage HHD series with Utility Software.

**2.17 OFFLINE CONTROLLER**

**A. Manufacturer and Product:**

1. Scheduled Manufacturer and Product: Schlage CTE Engage Controller.
2. Acceptable Manufacturers and Products: No Substitute.

**B. Requirements:**

1. Provide an offline single opening controller UL 294 listed and compatible with the Schlage Engage Application.
2. Provide offline controller with the following power options:
  - a. Power Over Ethernet (POE)
    - 1) .5A at 12 VDC for up to 500 feet.
    - 2) 1.5A at 24 VDC for up to 500 feet.
  - b. 12 VDC in 2A at 12 VDC for up to 500 feet.
  - c. 24 VDC in 2A at 24 VDC for up to 500 feet.
3. Provide offline controller with the following communication standards:
  - a. Bluetooth low energy version 4.2.
  - b. 2.4 GHz Wi-Fi (IEEE 802.11b/g/n).
  - c. WPA2, WPA, WEP, 802.1x (PEAP).
  - d. Transport Layer Security (TLS) version 12.
  - e. Advanced Encryption Standard (AES) 256-bit.
4. Provide offline controller with the following signal inputs:
  - a. One Schlage MT11-485 or MT15-485 reader.
  - b. Request to Enter (REN).
  - c. Request to Exit (REX).
  - d. Remote Release – hardwired.
  - e. Door Position Switch (DPS).
  - f. Reader tamper (TAMP).
5. Provide offline controller with the following signal outputs:



- a. Card Reader 0.3A at 12 VDC for up to 500 feet.
  - b. Locking mechanism: 2A at 30 VDC max.
  - c. Auxiliary: 2A at 30 VDC max.
  - d. Alarm: 2A at 30 VDC max.
6. Provide offline controller with the following with operating temperatures between -31 F (-35 C) to 151 F (66 C).
7. Provide offline controller with the following on board database:
- a. up to 5,000 users
  - b. up to 2,000 audits (FIFO)
  - c. up to 16 Time Zones
  - d. up to 32 Holiday Schedules
  - e. up to 16 Schedules (lock & unlock)
8. Provide offline controller with the following connectivity options:
- a. Apple or Droid smart phone – Bluetooth updates to CTE.
  - b. Wi-Fi access point – automatic daily updates (one time per day) if connected to Wi-Fi.
- C. Provide offline controller with “No-Tour” with MT20W enrollment reader and Schlage 1K smart credentials (13.56 MHz).

## 2.18 ACCESS CONTROL PLATFORM

### A. Manufacturers and Products:

- 1. Scheduled Manufacturer: Schlage Engage.
- 2. Acceptable Manufacturers and Products: No Substitute.

### B. Requirements:

- 1. Provide a cloud-based platform capable of managing users, credentials, access rights, schedules, and audits.
- 2. All locks are supplied in construction mode.
- 3. Provide a platform that supports a mobile application (app). Mobile application must allow for:
  - a. Commissioning and configuring devices
  - b. Immediately updating door files
  - c. Retrieving audit information
  - d. Performing firmware updates
- 4. Provide software set up on the owner’s work station and Mobile Device which includes:
  - a. Creation of the Owner’s Account
  - b. Creation of the Project Site
  - c. Creation of the Team as directed by the Owner
  - d. Addition of five users



- e. Set up of MT20W and update firmware
  - f. Create unique credentials and verify proper commissioning of ten locks
5. Provide, at the owner's request, the following on-site training prior to the expiration of the service agreement:
- a. Completing the following with ENGAGE software:
    - 1) Modifying the Team
    - 2) Move in/move out procedure including
      - a) Adding and Deleting Users
      - b) Adding and Deleting Doors
    - 3) Adding, assigning and programming credentials for access
    - 4) Replacing or deleting lost credentials.
    - 5) Retrieving and viewing of audit information
    - 6) Assigning temporary access
  - b. Commissioning and verifying proper functioning between locks and credentials.
  - c. Updating firmware on the locks.
6. Must include a service agreement ending a year after Substantial Completion. This service agreement includes being on-site up to 16 hours for set-up and training, as listed above.

## 2.19 ELECTRIC STRIKES AT RIM PANICS

### A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Locknetics RS Series.
- 2. Acceptable Manufacturers and Products: Folger Adam 300 Series, HES9400/ 9600 Series.

### B. Requirements:

- 1. Provide electric strikes designed for use with type of locks shown at each opening.
- 2. Provide electric strikes UL Listed as burglary-resistant.
- 3. Where required, provide electric strikes UL Listed for fire doors and frames.
- 4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

## 2.20 ELECTRIC STRIKES AT LOCKSETS

### A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Locknetics CS Series.
- 2. Acceptable Manufacturers and Products: Folger Adam 300 Series, HES 5000 Series.

### B. Requirements:

- 1. Provide electric strikes designed for use with type of locks shown at each opening.
- 2. Provide electric strikes UL Listed as burglary-resistant.



3. Where required, provide electric strikes UL Listed for fire doors and frames.
4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

## 2.21 POWER SUPPLIES

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage or Von Duprin PS900 series.
2. Acceptable Manufacturers and Products: Falcon PS900 series, Precision ELR series, Sargent 3500 series.

### B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
  - a. 12/24 VDC Output, field selectable.
  - b. Class 2 Rated power limited output.
  - c. Universal 120-240 VAC input.
  - d. Low voltage DC, regulated and filtered.
  - e. Polarized connector for distribution boards.
  - f. Fused primary input.
  - g. AC input and DC output monitoring circuit w/LED indicators.
  - h. Cover mounted AC Input indication.
  - i. Tested and certified to meet UL294.
  - j. NEMA 1 enclosure.
  - k. Hinged cover w/lock down screws.
  - l. High voltage protective cover.

## 2.22 ROLLER LATCHES

### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

### B. Requirements:

1. Provide roller latches with 4-7/8 inches (124 mm) strike at single doors to fit ANSI frame prep. If dummy levers are used in conjunction with roller latch mount roller latch at a height as to not interfere with proper mounting and height of dummy lever.



2. Provide roller latches with 2-1/4 inches (57 mm) full lip strike at pair doors. Mount roller in top rail of each leaf per manufacturer's template.

## 2.23 CYLINDERS

### A. Manufacturers:

1. Scheduled Manufacturer: Falcon
2. Acceptable Manufacturers: Best, Corbin-Russwin, Schlage

### B. Requirements:

1. Provide cylinders/cores, from the same manufacturer of locksets, compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
  - a. Cylinder/Core Type at common areas: Small Format Interchangeable Core (SFIC).
  - b. Cylinder/Core Type at units: Key-in-lever.
  - c. Keyway/Security Type: Standard open.
3. Nickel silver bottom pins.
4. Temporary Construction Cylinder Keying at units.
  - a. Provide construction cores that permit voiding construction keys without cylinder removal, furnished in accordance with the following requirements.
    - 1) Split Key Construction Keying System.
    - 2) 3 "split" construction control keys and extractor tool.
    - 3) 12 construction change (day) keys.
  - b. Owner's Representative will void operation of temporary construction keys.
5. Replaceable Construction Cores.
  - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
    - 1) 2 construction control keys.
    - 2) 12 construction change (day) keys.
  - b. Owner's Representative will replace construction cores.

## 2.24 KEYING

- A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.



**B. Requirements:**

1. Provide keying system capable of multiplex masterkeying.
2. Permanent cylinders/cores keyed by the manufacturer according to the following key system.
  - a. Keying system as directed by the Owner.
  - b. Grand Master Key System: Cylinders/cores operated by change (day) keys and subsequent masters (including grand/great grand) keys.
3. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements shall be cause for replacement of cylinders/cores involved at no additional cost to Owner.
4. Provide keys with the following features:
  - a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm).
5. Identification:
  - a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Blind code marks shall not include actual key cuts.
  - b. Identification stamping provisions must be approved by the Architect and Owner.
  - c. Stamp keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE".
  - d. Failure to comply with stamping requirements shall be cause for replacement of keys involved at no additional cost to Owner.
  - e. Permanent cylinders/cores and/or keys are to be shipped directly to Owner's Representative.
6. Quantity: Furnish in the following quantities.
  - a. Change (Day) Keys: 3 per cylinder/core.
  - b. Permanent Control Keys: 3
  - c. Master Keys: 6 per master.
  - d. Unused balance of key blanks shall be furnished to Owner with the cut keys.

## 2.25 KEY CONTROL SYSTEM

**A. Manufacturers:**

1. Scheduled Manufacturer: Telkee.
2. Acceptable Manufacturers: HPC, Lund.

**B. Requirements:**

1. Provide 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% of number of locks required for Project.



- a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
- b. Provide hinged-panel type cabinet for wall mounting.

## 2.26 DOOR CLOSERS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon SC70A series.
2. Acceptable Manufacturers and Products: LCN 4050 series, Norton 7500 series, Sargent 351 series.

### B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-1/2 inch (38 mm) diameter with 5/8 inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

## 2.27 DOOR CLOSERS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon SC80A series.
2. Acceptable Manufacturers and Products: LCN 1450 series, Norton 8000 series, Sargent 1331 series.

### B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-1/4 inch (32 mm) diameter, with 5/8 inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.



5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

## 2.28 DOOR CLOSERS

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon SC60A series.
2. Acceptable Manufacturers and Products: LCN 1250 series, Norton 1600 series, Sargent 1131 series.

### B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-3/8 inch (35 mm) diameter with 5/8 inch (16 mm) diameter pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C.
5. Pressure Relief Valve (PRV) Technology: Not permitted.
6. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

## 2.29 DOOR TRIM

### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Hiawatha.

### B. Requirements:

1. Provide push plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick and beveled 4 edges. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of sufficient length to span from center to center of each stile. Where required, mount back to back with pull.
3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.





6. Provide pull plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

## 2.30 PROTECTION PLATES

### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Hiawatha.

### B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:
  - a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
  - b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
  - c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

## 2.31 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

### A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson.
2. Acceptable Manufacturers: Rixson, Sargent.

### B. Requirements:

1. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
2. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
3. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
4. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.



## 2.32 DOOR STOPS AND HOLDERS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Hiawatha.

### B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

## 2.33 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

### A. Manufacturers:

1. Scheduled Manufacturer: Zero International.
2. Acceptable Manufacturers: National Guard, Reese.

### B. Requirements:

1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Size of thresholds:
  - a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width
  - b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width
4. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

## 2.34 SILENCERS

### A. Manufacturers:

1. Scheduled Manufacturer: Steelcraft.
2. Acceptable Manufacturers: Ives, Rockwood.

### B. Requirements:



1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

### 2.35 MAGNETIC HOLDERS

#### A. Manufacturers:

1. Scheduled Manufacturer: LCN.
2. Acceptable Manufacturers: Rixson, Sargent.

#### B. Requirements:

1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force.
2. Coordinate projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open.
3. Connect magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.
4. Coordinate voltage requirements for magnetic holders with fire control panel.

### 2.36 DOOR POSITION SWITCHES

#### A. Manufacturers:

1. Scheduled Manufacturer: Schlage.
2. Acceptable Manufacturers: GE-Interlogix, Sargent.

#### B. Requirements:

1. Provide recessed or surface mounted type door position switches as specified.
2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

### 2.37 DOOR VIEWERS

#### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

- #### B.
- Provide appropriate door viewer for door type and rating with minimum of 180-degree view area.



## 2.38 LATCH PROTECTORS

- A. Manufacturers:
  - 1. Scheduled Manufacturer: Ives.
  - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Provide stainless steel latch protectors of type required to function with specified lock.

## 2.39 COAT HOOKS

- A. Manufacturers:
  - 1. Scheduled Manufacturer: Ives.
  - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Provide coat hooks as specified.

## 2.40 FINISHES

- A. As specified in hardware sets.

# **PART 3 - EXECUTION**

## 3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
  - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
  - 2. Custom Steel Doors and Frames: HMMA 831.
  - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."



- B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- H. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches (750 mm) of door height greater than 90 inches (2286 mm).
- I. Lock Cylinders: Install construction cores to secure building and areas during construction period.
  - 1. Replace construction cores with permanent cores as indicated in keying section.
  - 2. Furnish permanent cores to Owner Representative for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL sections for:
  - 1. Conduit, junction boxes and wire pulls.
  - 2. Connections to and from power supplies to electrified hardware.
  - 3. Connections to fire/smoke alarm system and smoke evacuation system.
  - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
  - 5. Testing and labeling wires with Architect's opening number.
  - 6. Connections to panel interface modules, controllers and gateways
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.



- M. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- S. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

### 3.03 FIELD QUALITY CONTROL

- A. Architectural Hardware Consultant: Engage qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
  - 1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

### 3.04 FIELD INSPECTIONS:

- A. Fire Door Assembly Inspection and Testing: Provide functional testing and inspection of fire door assemblies in accordance with NFPA 80-2007/2010. Inspections shall be performed by individuals certified by Intertek as a Fire Door Assembly Inspector, using reporting forms provided by the Door and Hardware Institute (DHI). Alternatively, inspections may be performed by individuals acceptable to the Architect, who have knowledge and understanding of the operating components of the applicable door type, and who have experience in preparing written reports of testing and inspection results.
  - 1. Schedule fire door assembly inspection within 90 days of Substantial Completion of the Project.
  - 2. Submit a signed, written final report as specified in Paragraph 1.4: Submittals.
  - 3. Contractor shall correct all deficiencies and schedule a reinspection of fire door assemblies which were noted as deficient on the inspection report.
  - 4. Inspector shall reinspect fire door assemblies after repairs are made.
  - 5. Additional reinspections which are required due to incomplete repairs will be performed by the inspector at the expense of the Contractor.



- B. Provide inspection of required egress door assemblies by a qualified person in accordance with NFPA 101.
  - 1. Schedule egress door assembly inspection within 90 days of Substantial Completion of the Project for the required openings.
  - 2. Submit a signed, written final report as specified in Paragraph 1.03.E.2.
  - 3. Correct all deficiencies and schedule a reinspection of egress door assemblies noted as deficient on the inspection report.
  - 4. Inspector to reinspect required egress door assemblies after repairs are made.

### 3.05 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
  - 1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 30 degrees.
  - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
  - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, Installer's Architectural Hardware Consultant must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

### 3.06 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

### 3.07 DOOR HARDWARE SCHEDULE

- A. Hardware items are referenced in the following hardware. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.
- B. Hardware Sets:



88718 OPT0317039 Version 2

HARDWARE GROUP NO. 01

For use on Door #(s):

114A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
2	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	PUSH/PULL BAR	9190EZHD-12"-NS	619	IVE
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	MOUNTING PLATE	SC80A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC80A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC80A-61 AS REQ'D	689	FAL
1	EA	WALL STOP	WS406/407CVX	619	IVE





## HARDWARE GROUP NO. 02

For use on Door #(s):

120

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
2	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	PANIC HARDWARE	LD-24-R-NL-OP	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	90 DEG OFFSET PULL	8190HD 12" O	619	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	MOUNTING PLATE	SC70A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC70A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC70A-61 AS REQ'D	689	FAL
	SET	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	INTERCOM	BY ACCESS CONTROL PROVIDER		
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-4RL [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY . FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 03

For use on Door #(s):

140M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-NL	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 04

For use on Door #(s):

207

219

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
1	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	PANIC HARDWARE	24-R-NL-OP	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SFIC CONST. CORE	C607CCA	622	FAL
1	EA	90 DEG OFFSET PULL	8190HD 12" O	619	IVE
1	EA	SURFACE CLOSER	SC71A RW/PA [MOUNT ON PULL SIDE OF DOOR]	689	FAL
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	RAIN DRIP	142AA [MOUNT ON PUSH SIDE OF DOOR]	AA	ZER
1	SET	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	65A	A	ZER

NOTE: DOORS REQUIRE SPECIAL 3/8" INCH UNDERCUT FOR ADA TYPE THRESHOLD.



## HARDWARE GROUP NO. 05

For use on Door #(s):

101

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
2	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	PANIC HARDWARE	LD-24-R-NL-OP	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	90 DEG OFFSET PULL	8190HD 12" O	619	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	MOUNTING PLATE	SC70A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC70A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC70A-61 AS REQ'D	689	FAL
	SET	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 06

For use on Door #(s):

ST-41A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-EO	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	DOOR PULL	VR810 NL	630	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	GASKETING	429AA-S	AA	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 07

For use on Door #(s):

107A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-EO	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	DOOR PULL	VR810 NL	630	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	GASKETING	429AA-S	AA	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER



## HARDWARE GROUP NO. 08

For use on Door #(s):

104                      126M                      135M                      150

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-NL	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 09

For use on Door #(s):

138M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	PANIC HARDWARE	LD-25-R-NL	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



**HARDWARE GROUP NO. 10**

For use on Door #(s):

121

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-NL	619	FAL
1	EA	SFIC CYLINDER	C953-7CCA	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	RS300	630	LOC
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-8P [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.

**HARDWARE GROUP NO. 11**

For use on Door #(s):

213

222

312

411

511

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	PASSAGE SET	W101S LON	619	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 12**

For use on Door #(s):

118                      215                      223                      225

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	PRIVACY LOCK	W301S LON	619	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CCV	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 13**

For use on Door #(s):

109

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	CLASSROOM LOCK	W561BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR BOTTOM	355AA	AA	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 14**

For use on Door #(s):

136M                      227                      315                      413                      513

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	CLASSROOM LOCK	W561BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR BOTTOM	355AA	AA	ZER

**HARDWARE GROUP NO. 15**

For use on Door #(s):

137M                      245                      319                      417                      517

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	AUTO FLUSH BOLT	FB31T/FB41T AS REQ'D	630	IVE
1	EA	STOREROOM LOCK	T581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB [AS REQ'D]	689	IVE
2	EA	SURFACE CLOSER	SC81A SS	689	FAL
2	EA	KICK PLATE	8400 8" X 1" LDW B-CS	619	IVE
2	SET	MEETING STILE	328AA-S	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 16**

For use on Door #(s):

119

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	CLASSROOM LOCK	W561BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	WALL STOP	WS406/407CVX	619	IVE
3	EA	SILENCER	Q146		STE

**HARDWARE GROUP NO. 17**

For use on Door #(s):

103

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	CLASSROOM LOCK	W561BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR BOTTOM	355AA	AA	ZER

**HARDWARE GROUP NO. 18**

For use on Door #(s):

113

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
2	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	ENTRY / OFFICE LOCK	W511BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	MOUNTING PLATE	SC80A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC80A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC80A-61 AS REQ'D	689	FAL

**HARDWARE GROUP NO. 19**

For use on Door #(s):

212

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
1	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	CLASSROOM LOCK	W561BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	MOUNTING PLATE	SC70A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC70A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC70A-61 AS REQ'D	689	FAL
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 20**

For use on Door #(s):

145M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	AUTO FLUSH BOLT	FB31T/FB41T AS REQ'D	630	IVE
1	EA	STOREROOM LOCK	T581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB [AS REQ'D]	689	IVE
2	EA	SURF OH STOP	450S	652	GLY
2	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
2	EA	KICK PLATE	8400 8" X 1" LDW B-CS	619	IVE
2	SET	MEETING STILE	328AA-S	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 21**

For use on Door #(s):

108M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	AUTO FLUSH BOLT	FB31T/FB41T AS REQ'D	630	IVE
1	EA	STOREROOM LOCK	T581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB [AS REQ'D]	689	IVE
2	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
2	EA	KICK PLATE	8400 8" X 1" LDW B-CS	619	IVE
2	EA	WALL STOP	WS406/407CVX	619	IVE
2	SET	MEETING STILE	328AA-S	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 22**

For use on Door #(s):

116

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	ELEC CLASSROOM LOCK	CO-100-CY-70-KP-LON-B 4B	619	SCE
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
3	EA	SILENCER	Q146		STE

OPERATION: DOOR NORMALLY CLOSED AND LOCKED. VALID CODE MOMENTARILY UNLOCKS DOOR ALLOWING ENTRY. DOOR REMAINS LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.

**HARDWARE GROUP NO. 23**

For use on Door #(s):

127M	128M	129M	130M	131M	132M
133M	231	232	233	234	235
236	237	238	239	240	241
242	243	244			

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC61A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 24**

For use on Door #(s):

104M	123	125M	126M	142M	143M
216	217	220	228	229	246
247	250	313	314	316	317
320	412	414	415	418	512
514	515	518			

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER



## HARDWARE GROUP NO. 25

For use on Door #(s):

141M                151

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.





## HARDWARE GROUP NO. 26

For use on Door #(s):

214                      221                      226

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
1	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 27

For use on Door #(s):

139M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR BOTTOM	355AA	AA	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.



## HARDWARE GROUP NO. 28

For use on Door #(s):

122

224

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.

**HARDWARE GROUP NO. 29**

For use on Door #(s):

249

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURF OH STOP	450S	652	GLY
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.

**HARDWARE GROUP NO. 30**

For use on Door #(s):

112                      144M

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURF OH STOP	450S	652	GLY
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 31**

For use on Door #(s):

230                      318                      416                      516

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 32**

For use on Door #(s):

002

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 33**

For use on Door #(s):

205	209	210	211	305	308
405	408	505	508		

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
2	EA	FIRE EXIT HARDWARE	F-25-V-EO-LBR	619	FAL
2	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
2	EA	KICK PLATE	8400 8" X 1" LDW B-CS	619	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7800 SERIES AS REQ'D	689	LCN
2	SET	MEETING STILE	328AA-S	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER

OPERATION: FIRE ALARM RELEASES HOLD OPENS ALLOWING DOOR TO CLOSE AND LATCH. FREE EGRESS AT ALL TIMES.

**HARDWARE GROUP NO. 34**

For use on Door #(s):

ST-11	ST-21
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Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LON	619	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 35**

For use on Door #(s):

108                      ST-21M                      ST-30

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LON	619	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 36**

For use on Door #(s):

107	ST-12	ST-13	ST-14	ST-15	ST-22
ST-23	ST-24	ST-25	ST-31	ST-31M	ST-32
ST-33	ST-34	ST-35	ST-41	ST-41M	ST-42
ST-43	ST-44	ST-45			

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGES	5BB1 4.5 X 4.5 [PER 08 71 00]	646	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LON	619	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	WALL STOP	WS406/407CVX	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

**HARDWARE GROUP NO. 37**

For use on Door #(s):

ST-10                      ST-11A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LON	619	FAL
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	SC81A RW/PA	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 38**

For use on Door #(s):

ST-31A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1 4.5 X 4.5 NRP [PER 08 71 00]	619	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LON	619	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER



**HARDWARE GROUP NO. 39**

For use on Door #(s):

102                      102A                      102B                      110                      111                      114  
124

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7212 SET	619	IVE
2	EA	INTERMEDIATE PIVOT	7212 INT	619	IVE
1	EA	DEADLOCK	MS1850S X 4089	628	ADA
2	EA	MORTISE CYLINDER	20-061 ICX TRIM CYLINDER	626	SCH
2	EA	SFIC CORE	C607	626	FAL
1	EA	PUSH/PULL BAR	9190HD-12"-NS	619	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	MOUNTING PLATE	SC70A-18PA AS REQ'D	689	FAL
1	EA	CUSH SHOE SUPPORT	SC70A-30 AS REQ'D	689	FAL
1	EA	BLADE STOP SPACER	SC70A-61 AS REQ'D	689	FAL
1	SET	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

**HARDWARE GROUP NO. 40**

For use on Door #(s):

110A                      111A                      124A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	VIEWER	U698 X COVER	626	IVE
[PROVIDE 2 @ ACCESSIBLE UNITS]					



## HARDWARE GROUP NO. 41

For use on Door #(s):

100-1          103A          106          109A

Provide each OPENING with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
EA	NOTE	ALL HARDWARE BY DOOR SUPPLIER		

## HARDWARE GROUP NO. 42

For use on Door #(s):

105

Provide each OPENING with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR	
1	SET	HINGE	5BB1HW 4.5 X 4.5 [PER 08 71 00]	619	IVE
1	EA	STOREROOM LOCK	W581BDC LON	619	FAL
1	EA	SFIC CORE	C607	626	FAL
1	EA	ELECTRIC STRIKE	CS750	630	LOC
1	EA	SURFACE CLOSER	SC81A SS	689	FAL
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	619	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	CONTROLLER	CTE-MT11/MT15-485-B	B	SCE
1	EA	DOOR CONTACT	BY ACCESS CONTROL PROVIDER	628	SCE
1	EA	MOTION SENSOR	BY ACCESS CONTROL PROVIDER	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-4R [COORDINATE WITH ACCESS CONTROL PROVIDER]	LGR	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

OPERATION: VALID CREDENTIAL RELEASES ELECTRIC STRIKE ALLOWING ENTRY. FREE EGRESS AT ALL TIMES.

DOOR CAN ALSO BE UNLOCKED VIA KEY.



## HARDWARE GROUP NO. MISC

For use on Door #(s):

MISC

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	MULTITECH READER	MT20W	BLK	SCE
25	EA	CONSTRUCTION FOBS	9651 (CT8X4248)	BLK	SCE
	EA	CREDENTIAL	9691T (3 PER UNIT + 20)	BLK	SCE

## HARDWARE GROUP NO. NOTFOUND

For use on Door #(s):

124B ST-36

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
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NOTE: OPENING NOT FOUND ON FLOOR PLANS

**HARDWARE GROUP NO. U01**

For use on Door #(s):

U101	U102	U103	U104	U105	U106
U107	U108	U109	U110	U111	U112
U113	U114	U115	U116	U117	U118
U119	U120	U121	U122	U123	U124
U201	U202	U203	U204	U206	U208
U210	U211	U212	U214	U217	U218
U219	U220	U221	U222	U223	U224
U225	U226	U227	U228	U229	U230
U231	U232	U233	U234	U235	U240
U241	U242	U243	U244	U245	U246
U248	U301	U302	U303	U304	U305
U306	U307	U308	U309	U310	U311
U312	U313	U314	U315	U316	U317
U318	U319	U320	U321	U322	U323
U324	U325	U326	U327	U328	U329
U330	U331	U332	U333	U334	U335
U336	U338	U340	U341	U342	U343
U344	U345	U346	U347	U348	U349
U401	U402	U403	U404	U405	U406
U407	U408	U409	U410	U411	U412
U413	U414	U415	U416	U417	U418
U419	U420	U421	U422	U423	U424
U425	U426	U427	U428	U429	U430
U431	U432	U433	U434	U435	U436
U437	U438	U439	U440	U441	U442
U443	U444	U445	U446	U447	U448
U449	U501	U502	U503	U504	U505
U506	U507	U508	U509	U510	U511
U512	U513	U514	U515	U516	U517
U518	U519	U520	U521	U522	U523
U524	U525	U526	U527	U528	U529
U530	U531	U532	U533	U534	U535
U536	U537	U538	U539	U540	U541
U542	U543	U544	U545	U546	U547
U548	U549				

Provide each OPENING with the following:

**WC GDP FOUNTAIN SQUARE, LLC**

LINK

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	SPRING HINGE	3SP1 4 X 4	FBLK/6	IVE
				31	
1	EA	HINGE	5BB1 4 X 4	FBLK/6	IVE
				31	
1	EA	DEADBOLT	BE467F-B GRW/ADD	622	SCH
1	EA	PASSAGE SET	W101S LON	622	FAL
1	EA	DOOR STOP	060 OR 70 AS REQ'D	FBLK/6	IVE
				31	
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	253A	A	ZER
1	EA	THRESHOLD	544A	A	ZER
1	EA	VIEWER	U700 [PROVIDE 2 @ ACCESSIBLE	622	IVE
			UNITS]		

OPERATION: VALID CREDENTIAL ALLOWS DEADBOLT TO BE RETRACTED OR THROWN WITH THUMB TURN.

## HARDWARE GROUP NO. U02

For use on Door #(s):

A B

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	1011 3.5 X 3.5	F622E	IVE
1	EA	PRIVACY LOCK	F40 LAT	622	SCH
1	EA	DOOR STOP	060 OR 70 AS REQ'D	FBLK/6	IVE
				31	
1	EA	COAT AND HAT HOOK	582 [PROVIDE ONLY @ BATHROOM]	622	IVE

## HARDWARE GROUP NO. U03

For use on Door #(s):

C E F G H J

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	1011 3.5 X 3.5	F622E	IVE
1	EA	PASSAGE SET	J10 SOL	622	SCH
1	EA	DOOR STOP	060 OR 70 AS REQ'D	FBLK/6	IVE
				31	

**HARDWARE GROUP NO. U04**

For use on Door #(s):

K

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	1011 3.5 X 3.5	F622E	IVE
2	EA	BALL CATCH	349	622	IVE
2	EA	SINGLE DUMMY TRIM	J170 SOL	622	SCH
2	EA	DOOR STOP	060 OR 70 AS REQ'D	FBLK/6 31	IVE

**HARDWARE GROUP NO. U05**

For use on Door #(s):

D

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	1011 3.5 X 3.5	F622E	IVE
1	EA	PASSAGE SET	J10 SOL	622	SCH
1	EA	SGL CYL DEADBOLT	JD60	622	SCH

**HARDWARE GROUP NO. U06**

For use on Door #(s):

P2	U201A	U202A	U203A	U204A	U248A
U301A	U302A	U303A	U304A	U348A	U349A
U401A	U402A	U403A	U404A	U448A	U449A
U501A	U502A	U503A	U504A	U548A	U549A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	SET	HINGE	5PB1 4 X 4 [PER 08 71 00]	622	IVE
1	EA	DEADBOLT	BE467F-B GRW/ADD [@ GROUND FLOOR ONLY]	622	SCH
1	EA	PASSAGE SET	W101S LON	622	FAL
1	EA	ONE-SIDED DEADBOLT	B80 [@ ABOVE GROUND FLOOR]	622	SCH
1	EA	DOOR STOP	060 OR 70 AS REQ'D	FBLK/6 31	IVE
1	EA	DOOR SWEEP	153BK (UNLESS FURNISHED BY PRE-HUNG DOOR MFR)	BK	ZER
1	EA	GASKETING	370A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

OPERATION: VALID CREDENTIAL ALLOWS DEADBOLT TO BE RETRACTED OR THROWN WITH THUMB TURN.

**HARDWARE GROUP NO. U07**

For use on Door #(s):

P

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
	EA	ALL HARDWARE	BY SLIDING BALCONY DR MFG		B/O

END OF SECTION



## **SECTION 088000 - GLAZING**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

**A. Section includes:**

1. Glass for windows, doors, sidelites, interior borrowed lites, and storefront framing.
2. Glazing sealants and accessories.

#### **1.2 COORDINATION**

- A.** Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

#### **1.3 ACTION SUBMITTALS**

- A.** Product Data: For each type of product.
- B.** Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.
- C.** Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.
- D.** Delegated-Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### **1.4 INFORMATIONAL SUBMITTALS**

- A.** Preconstruction adhesion and compatibility test report.

#### **1.5 QUALITY ASSURANCE**

- A.** Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C1021 to conduct the testing indicated.





1.6 PRECONSTRUCTION TESTING

- A. Preconstruction Adhesion and Compatibility Testing: Test each glass product, tape sealant, gasket, glazing accessory, and glass-framing member for adhesion to and compatibility with elastomeric glazing sealants.
  - 1. Testing is not required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.

1.7 WARRANTY

- A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.
  - 1. Warranty Period: 10 years from date of Substantial Completion.
- B. Manufacturer's Special Warranty for Laminated Glass: Manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.
  - 1. Warranty Period: 10 years from date of Substantial Completion.
- C. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.
  - 1. Warranty Period: 10 years from date of Substantial Completion.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. Guardian Glass; SunGuard.
  - 2. Oldcastle BuildingEnvelope™.
  - 3. Pilkington North America.



4. Schott North America, Inc.
5. Trulite Glass & Aluminum Solutions, LLC.
6. Viracon, Inc.

## 2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazing.
- B. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined according to the International Building Code and ASTM E1300.
  1. Design Wind Pressures: As indicated on Drawings.
  2. Differential Shading: Design glass to resist thermal stresses induced by differential shading within individual glass lites.
- C. Windborne-Debris Impact Resistance: Exterior glazing shall pass ASTM E1886 missile-impact and cyclic-pressure tests in accordance with ASTM E1996 for Wind Zone 1 for basic protection.
  1. Large-Missile Test: For glazing located within 30 feet (9.1 m) of grade.
  2. Small-Missile Test: For glazing located between 30 feet (9.1 m) and 60 feet (18.3 m) above grade.
- D. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.
- E. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
  1. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F.
  2. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
  3. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

## 2.3 GLASS PRODUCTS, GENERAL

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.
  1. GANA Publications: "Laminated Glazing Reference Manual" and "Glazing Manual."
  2. AAMA Publications: AAMA GDSG-1, "Glass Design for Sloped Glazing," and AAMA TIR A7, "Sloped Glazing Guidelines."
  3. IGMA Publication for Sloped Glazing: IGMA TB-3001, "Guidelines for Sloped Glazing."
  4. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."



- B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
- C. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.
- D. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than the thickness indicated.
- E. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where fully tempered float glass is indicated, provide fully tempered float glass.

## 2.4 GLASS PRODUCTS

- A. Clear Annealed Float Glass: ASTM C1036, Type I, Class 1 (clear), Quality-Q3.
- B. Tinted Annealed Float Glass: ASTM C1036, Type I, Class 2 (tinted), Quality-Q3.
- C. Fully Tempered Float Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
- D. Heat-Strengthened Float Glass: ASTM C1048, Kind HS (heat strengthened), Type I, Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
- E. Ceramic-Coated Vision Glass: ASTM C1048, Condition C, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3; and complying with Specification No. 95-1-31 in GANA's "Engineering Standards Manual."
- F. Reflective-Coated Vision Glass: ASTM C1376.
- G. Ceramic-Coated Spandrel Glass: ASTM C1048, Type I, Condition B, Quality-Q3.
- H. Reflective-Coated Spandrel Glass: ASTM C1376, Kind CS.

## 2.5 LAMINATED GLASS

- A. Laminated Glass: ASTM C1172. Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation.
  - 1. Construction: Laminate glass with polyvinyl butyral interlayer to comply with interlayer manufacturer's written instructions.



2. Interlayer Thickness: Provide thickness not less than that indicated and as needed to comply with requirements.
  3. Interlayer Color: Clear unless otherwise indicated.
- B. Windborne-Debris-Impact-Resistant Laminated Glass: Comply with requirements specified above for laminated glass except laminate glass with the following to comply with interlayer manufacturer's written instructions:
1. Polyvinyl butyral interlayer.
  2. Polyvinyl butyral interlayers reinforced with polyethylene terephthalate film.
  3. Cast-in-place and cured-transparent-resin interlayer.
  4. Cast-in-place and cured-transparent-resin interlayer reinforced with polyethylene terephthalate film.

## 2.6 INSULATING GLASS

- A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E2190.
1. Sealing System: Dual seals.
  2. Perimeter Spacer: Manufacturer's standard spacer material and construction.

## 2.7 GLAZING SEALANTS

- A. General:
1. Compatibility: Compatible with one another and with other materials they contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
  2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
  3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.
- B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 25, Use NT.

## 2.8 GLAZING TAPES

- A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:



1. AAMA 804.3 tape, where indicated.
  2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
  3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.
- B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
  2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

## 2.9 MISCELLANEOUS GLAZING MATERIALS

- A. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- B. Setting Blocks:
1. EPDM, Silicone, or Neoprene with a Shore A durometer hardness of 85, plus or minus 5.
  2. Type recommended by sealant or glass manufacturer.
- C. Spacers:
1. Neoprene blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
  2. Type recommended by sealant or glass manufacturer.
- D. Edge Blocks:
1. EPDM, Silicone, or Neoprene with a Shore A durometer hardness per manufacturer's written instructions.
  2. Type recommended by sealant or glass manufacturer.
- E. Cylindrical Glazing Sealant Backing: ASTM C1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

## **PART 3 - EXECUTION**

### 3.1 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge damage



or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.

- C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- F. Provide spacers for glass lites where length plus width is larger than 50 inches.
- G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

### 3.2 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Apply heel bead of elastomeric sealant.
- F. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
- G. Apply cap bead of elastomeric sealant over exposed edge of tape.

### 3.3 GASKET GLAZING (DRY)

- A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.



- C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
- D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
- E. Install gaskets so they protrude past face of glazing stops.

### 3.4 SEALANT GLAZING (WET)

- A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
- B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
- C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

### 3.5 CLEANING AND PROTECTION

- A. Immediately after installation remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
  - 1. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.
- C. Remove and replace glass that is damaged during construction period.



### 3.6 MONOLITHIC GLASS SCHEDULE

A. Glass Type **GL-1**: Clear fully tempered float glass.

1. Minimum Thickness: 6 mm.
2. Safety glazing required.

### 3.7 INSULATING GLASS SCHEDULE

A. Glass Type **GL-2**: Low-E-coated, clear insulating safety glass.

1. Overall Unit Thickness: 1 inch.
2. Minimum Thickness of Each Glass Lite: 6 mm.
3. Outdoor Lite: Fully tempered float glass.
4. Interspace Content: Air.
5. Indoor Lite: Fully tempered float glass.
6. Low-E Coating: Pyrolytic or sputtered on second or third surface.
7. Winter Nighttime U-Factor: 0.29 maximum.
8. Summer Daytime U-Factor: 0.28 maximum.
9. Visible Light Transmittance: 68 percent minimum.
10. Solar Heat Gain Coefficient: 0.38 maximum.
11. Safety glazing required.

B. Glass Type **GL-3**: Low-E-coated, clear insulating safety glass for storefront doors.

1. Overall Unit Thickness: 5/8 inch.
2. Minimum Thickness of Each Glass Lite: 3 mm.
3. Outdoor Lite: Fully tempered float glass.
4. Interspace Content: Air.
5. Indoor Lite: Fully tempered float glass.
6. Low-E Coating: Pyrolytic or sputtered on second or third surface.
7. Safety glazing required.

### 3.8 FIRE-RESISTANT GLASS SCHEDULE

A. Glass Type **GL-4**: Clear fully tempered fire-resistant glass.

1. Minimum Thickness: 6 mm.
2. Safety glazing required.
3. Refer to 'Section 088813 – Fire Resistant Glazing' for other properties and additional information.

## END OF SECTION 088000





## **SECTION 088300 - MIRRORS**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section includes the following types of silvered flat glass mirrors:

1. Annealed monolithic glass mirrors.
2. Tempered glass mirrors qualifying as safety glazing.

#### **1.2 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
- B. Shop Drawings: Include mirror elevations, edge details, mirror hardware, and attachment details.
- C. Samples: For each type of the following:
1. Mirrors: 12 inches square, including edge treatment on two adjoining edges.
  2. Mirror Clips: Full size.
  3. Mirror Trim: 12 inches long.

#### **1.3 INFORMATIONAL SUBMITTALS**

- A. Preconstruction test report.
- B. Sample Warranty: For special warranty.

#### **1.4 CLOSEOUT SUBMITTALS**

- A. Maintenance Data: For mirrors to include in maintenance manuals.

#### **1.5 PRECONSTRUCTION TESTING**

- A. Preconstruction Mirror Mastic Compatibility Test: Submit mirror mastic products to mirror manufacturer for testing to determine compatibility of mastic with mirror backing.

#### **1.6 WARRANTY**

- A. Special Warranty: Manufacturer agrees to replace mirrors that deteriorate within specified warranty period. Deterioration of mirrors is defined as defects developed from normal use that are not



attributed to mirror breakage or to maintaining and cleaning mirrors contrary to manufacturer's written instructions. Defects include discoloration, black spots, and clouding of the silver film.

1. Warranty Period: Five years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 SILVERED FLAT GLASS MIRRORS**

- A. Mirrors, General: ASTM C1503; manufactured using copper-free, low-lead mirror coating process.
- B. Annealed Monolithic Glass Mirrors: Mirror Quality, clear (low-iron) float glass with a minimum 91 percent visible light transmission.
  1. Nominal Thickness: 6.0 mm.
- C. Tempered Glass Mirrors: Mirror Glazing Quality for blemish requirements and complying with ASTM C1048 for Kind FT, Condition A, tempered float glass before silver coating is applied.
  1. Nominal Thickness: 6.0 mm.
- D. Safety Glazing Products: For film-backed, laminated, or tempered mirrors, provide products that comply with 16 CFR 1201, Category II.

### **2.2 MISCELLANEOUS MATERIALS**

- A. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
- B. Edge Sealer: Coating approved by mirror manufacturer.
- C. Mirror Mastic: An adhesive setting compound, asbestos-free, produced specifically for setting mirrors.
- D. Film Backing for Safety Mirrors: Film backing and pressure-sensitive adhesive; both compatible with mirror backing paint as certified by mirror manufacturer.

### **2.3 MIRROR HARDWARE**

- A. Aluminum J-Channels: Aluminum extrusions with returns deep enough to produce a glazing channel to accommodate mirrors of indicated thickness and in lengths required to cover edges in a single piece.
  1. Bottom Trim: J-channels formed with front leg and back leg not less than 3/8 and 7/8 inch in height, respectively, and a thickness of not less than 0.04 inch.



2. Top Trim: J-channels formed with front leg and back leg not less than 5/8 and 1 inch in height, respectively, and a thickness of not less than 0.04 inch.

3. Finish: Black Anodized.

- B. Fasteners: Fabricated of same basic metal and alloy as fastened metal and matching it in finished color and texture where fasteners are exposed.

## 2.4 FABRICATION

- A. Fabricate cutouts for notches and holes in mirrors without marring visible surfaces. Locate and size cutouts so they fit closely around penetrations in mirrors.
- B. Mirror Edge Treatment: Flat polished. Seal edges of mirrors with edge sealer.
- C. Film-Backed Safety Mirrors: Apply film backing with adhesive coating over mirror backing paint, as recommended in writing by film-backing manufacturer.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, over which mirrors are to be mounted, with Installer present, for compliance with installation tolerances, substrate preparation, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected and surfaces are dry.

### 3.2 PREPARATION

- A. Comply with mastic manufacturer's written installation instructions for preparation of substrates, including coating substrates with mastic manufacturer's special bond coating where applicable.

### 3.3 INSTALLATION

- A. General: Install mirrors to comply with mirror manufacturer's written instructions and with referenced GANA publications. Mount mirrors accurately in place in a manner that avoids distorting reflected images.
- B. Install mirrors with mastic and mirror hardware. Attach mirror hardware securely to mounting surfaces with mechanical fasteners installed with anchors or inserts as applicable. Install fasteners so heads do not impose point loads on backs of mirrors.



1. Apply mastic to comply with mastic manufacturer's written instructions for coverage and to allow air circulation between back of mirrors and face of mounting surface.
- C. Clean exposed surface of mirrors not more than four days before date scheduled for inspections that establish date of Substantial Completion. Clean mirrors as recommended in writing by manufacturer.

**END OF SECTION 088300**



## **SECTION 088813 - FIRE-RESISTANT GLAZING**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section Includes:
  - 1. Fire-protection-rated glazing.
  - 2. Fire-resistance-rated glazing.

#### **1.2 COORDINATION**

- A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

#### **1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
- B. Glass Samples: For each type of glass product; 12 inches square.
- C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

#### **1.4 WARRANTY**

- A. Manufacturer's Special Warranty on Laminated Glass: Manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.
  - 1. Warranty Period: Five years from date of Substantial Completion.
- B. Manufacturer's Special Warranty on Double Glazing Units with Clear Gel Fill: Manufacturer agrees to replace units that deteriorate within specified warranty period. Deterioration of double-glazing units with clear gel fill is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning glass contrary to manufacturer's written instructions. Evidence of failure is the leakage of gel fill from units, air bubbles within units, or obstruction of vision by contamination or deterioration of gel.



1. Warranty Period: 10 years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 GLASS PRODUCTS, GENERAL**

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organization below unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
  1. GANA Publications: "Laminated Glazing Reference Manual" and "Glazing Manual."
- B. Safety Glazing Labeling: Permanently mark glazing with certification label of the Safety Glazing Certification Council or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, glass thickness, and safety glazing standard with which glass complies.

### **2.2 GLASS PRODUCTS**

- A. Float Glass: ASTM C1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
- B. Tempered Float Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class I (clear) unless otherwise indicated, Quality-Q3.
- C. Laminated Glass: ASTM C1172. Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation.

### **2.3 FIRE-PROTECTION-RATED GLAZING**

- A. Fire-Protection-Rated Glazing: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on positive-pressure testing according to NFPA 257 or UL 9, including the hose-stream test, and shall comply with NFPA 80.
  1. Fire-protection-rated glazing required to have a fire-protection rating of 20 minutes shall be exempt from the hose-stream test.
- B. Fire-Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name; test standard; whether glazing is permitted to be used in doors or openings; if permitted in openings, whether or not glazing has passed the hose-stream test; whether or not glazing meets 450 deg F temperature-rise limitation; and the fire-resistance rating in minutes.
- C. Fire-Protection-Rated Tempered Glass: 6-mm thickness, fire-protection-rated tempered glass; and complying with 16 CFR 1201, Category II.



1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - a. AGC Glass Company North America, Inc.
  - b. SAFTI FIRST Fire Rated Glazing Solutions.
  - c. Technical Glass Products.
  - d. Vetrotech Saint-Gobain.
- D. Film-Faced Ceramic Glazing: Clear, ceramic flat glass; 5-mm thickness; faced on one surface with a clear glazing film; and complying with 16 CFR 1201, Category II.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. AGC Glass Company North America, Inc.
    - b. SAFTI FIRST Fire Rated Glazing Solutions.
    - c. Schott North America, Inc.
    - d. Technical Glass Products.
    - e. Vetrotech Saint-Gobain.
- E. Laminated Ceramic Glazing: Laminated glass made from two plies of clear, ceramic glass; 8-mm total thickness; and complying with 16 CFR 1201, Category II.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. AGC Glass Company North America, Inc.
    - b. SAFTI FIRST Fire Rated Glazing Solutions.
    - c. Schott North America, Inc.
    - d. Technical Glass Products.
    - e. Vetrotech Saint-Gobain.
- F. Laminated Glass with Intumescent Interlayers: Laminated glass made from multiple plies of uncoated, ultraclear float glass; with intumescent interlayers; and complying with 16 CFR 1201, Category II.

## 2.4 FIRE-RESISTANCE-RATED GLAZING

- A. Fire-Resistance-Rated Glazing: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-resistance ratings indicated, based on testing according to ASTM E119 or UL 263.
- B. Fire-Resistance-Rated Glazing Labeling: Permanently mark fire-resistance-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, test standard, that the glazing is approved for use in walls, and the fire-resistance rating in minutes.



- C. Laminated Glass with Intumescent Interlayers: Laminated glass made from multiple plies of uncoated, ultraclear float glass; with intumescent interlayers; and complying with 16 CFR 1201, Category II.

## 2.5 GLAZING ACCESSORIES

- A. Provide glazing gaskets, glazing sealants, glazing tapes, setting blocks, spacers, edge blocks, and other glazing accessories that are compatible with glazing products and each other and are approved by testing agencies that listed and labeled fire-resistant glazing products with which products are used for applications and fire-protection ratings indicated.
- B. Glazing Sealants for Fire-Rated Glazing Products: Neutral-curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 50, Use NT. Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated.
  - 1. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.

## **PART 3 - EXECUTION**

### 3.1 GLAZING

- A. Use methods approved by testing agencies that listed and labeled fire-resistant glazing products.
- B. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials unless more stringent requirements are indicated, including those in referenced glazing publications.
- C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.
- D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- G. Provide spacers for glass lites where length plus width is larger than 50 inches.
- H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.





### 3.2 CLEANING AND PROTECTION

- A. Immediately after installation, remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
  - 1. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.
- C. Remove and replace glass that is damaged during construction period.

### 3.3 FIRE-PROTECTION-RATED GLAZING SCHEDULE

- A. 20-minute fire-protection-rated glazing without hose-stream test; fire-protection-rated tempered glass, film-faced ceramic glazing, or laminated ceramic glazing.
- B. 20-minute fire-protection-rated glazing with hose-stream test; film-faced ceramic glazing, laminated ceramic glazing, or laminated glass with intumescent interlayers.
- C. 45-minute fire-protection-rated glazing; film-faced ceramic glazing, laminated ceramic glazing, or laminated glass with intumescent interlayers.

### 3.4 FIRE-RESISTANCE-RATED GLAZING SCHEDULE

- A. 90-minute fire-resistance-rated glazing with 450 deg F temperature-rise limitation; laminated glass with intumescent interlayers or double glazing units with clear gel fill.

**END OF SECTION 088813**



## **SECTION 089119 - FIXED LOUVERS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. Fixed, extruded-aluminum louvers.

#### **1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
  - 1. For louvers specified to bear AMCA seal, include printed catalog pages showing specified models with appropriate AMCA Certified Ratings Seals.
- B. Shop Drawings: For louvers and accessories. Include plans, elevations, sections, details, and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
- C. Samples: For each type of metal finish required.
- D. Delegated-Design Submittal: For louvers indicated to comply with structural and seismic performance requirements, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### **1.4 INFORMATIONAL SUBMITTALS**

- A. Product Test Reports: Based on evaluation of comprehensive tests performed according to AMCA 500-L by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for each type of louver and showing compliance with performance requirements specified.



## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Source Limitations: Obtain louvers from single source from a single manufacturer where indicated to be of same type, design, or factory-applied color finish.

### **2.2 PERFORMANCE REQUIREMENTS**

- A. Delegated Design: Design louvers, including comprehensive engineering analysis by a qualified professional engineer, using structural and seismic performance requirements and design criteria indicated.
- B. Structural Performance: Louvers shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver-blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures shall be considered to act normal to the face of the building.
  - 1. Wind Loads: Determine loads based on pressures as indicated on Drawings.
- C. Seismic Performance: Louvers, including attachments to other construction, shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- D. Louver Performance Ratings: Provide louvers complying with requirements specified, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width according to AMCA 500-L.

### **2.3 FIXED, EXTRUDED-ALUMINUM LOUVERS**

- A. Horizontal, Nondrainable-Blade Louver:
  - 1. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following
    - a. Airolite Company, LLC (The).
    - b. Construction Specialties, Inc.
  - 2. Louver Depth: 4 inches.
  - 3. Blade Profile: Plain blade without center baffle.
  - 4. Frame and Blade Nominal Thickness: Not less than 0.080 inch.
  - 5. Mullion Type: Exposed.
  - 6. Louver Performance Ratings:
    - a. Free Area: Not less than 7.5 sq. ft. for 48-inch-wide by 48-inch-high louver.
    - b. Point of Beginning Water Penetration: Not less than 700 fpm.
    - c. Air Performance: Not more than 0.10-inch wg static pressure drop at 700-fpm free-area exhaust velocity..
- B. Horizontal, Wind-Driven-Rain-Resistant Louver >:



1. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
  - a. Airolite Company, LLC (The).
  - b. Construction Specialties, Inc.
  - c. Ruskin Company; Tomkins PLC.
2. Louver Depth: 5 inches.
3. Frame and Blade Nominal Thickness: Not less than 0.060 inch for blades and 0.080 inch for frames.
4. Louver Performance Ratings:
  - a. Free Area: Not less than 50 percent.
  - b. Air Performance: Not more than 0.10-inch wg static pressure drop at 700-fpm free-area intake velocity.
  - c. Wind-Driven Rain Performance: Not less than 95 percent effectiveness when subjected to a rainfall rate of 8 inches per hour and a wind speed of 50 mph at a core-area intake velocity of 400 fpm.
5. AMCA Seal: Mark units with AMCA Certified Ratings Seal.

## 2.4 LOUVER SCREENS

- A. General: Provide screen at each exterior louver.
  1. Screen Location for Fixed Louvers: Interior face.
  2. Screening Type: Bird screening.
- B. Louver Screen Frames: Same type and form of metal as indicated for louver to which screens are attached.
- C. Louver Screening for Aluminum Louvers:
  1. Bird Screening: Aluminum, 1/2-inch-square mesh, 0.063-inch wire. Insert other screening materials as required, including bronze and glass fiber.

## 2.5 MATERIALS

- A. Aluminum Extrusions: ASTM B 221, Alloy 6063-T5, T-52, or T6.
- B. Aluminum Sheet: ASTM B 209, Alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish.
- C. Fasteners: Use types and sizes to suit unit installation conditions.
  1. Use Phillips flat-head screws for exposed fasteners unless otherwise indicated.
  2. For fastening aluminum, use aluminum or 300 series stainless-steel fasteners.
  3. For color-finished louvers, use fasteners with heads that match color of louvers.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.



**2.6 FABRICATION**

- A. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.
- B. Join frame members to each other and to fixed louver blades with fillet welds concealed from view unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

**2.7 ALUMINUM FINISHES**

- A. Finish louvers after assembly.
- B. Provide manufacturer color samples for Architect's selection.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

**3.2 INSTALLATION**

- A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- D. Protect unpainted galvanized and nonferrous-metal surfaces that are in contact with concrete, masonry, or dissimilar metals from corrosion and galvanic action by applying a heavy coating of bituminous paint or by separating surfaces with waterproof gaskets or nonmetallic flashing.

**3.3 ADJUSTING AND CLEANING**

- A. Clean exposed louver surfaces that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate during construction period.



- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Restore louvers damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.
  - 1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

**END OF SECTION 089119**



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 1 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

**Current Drawings**

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
<b>ARCHITECTURAL</b>					
A001	WALL TYPES & U.L. DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A002	WALL TYPES & U.L. DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A100	OVERALL BASEMENT FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A100A	AREA A - BASEMENT FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A100B	AREA B - BASEMENT FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101	OVERALL FIRST FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101.1	OVERALL MEZZANINE FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101.1A	AREA A - MEZZANINE FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101.1B	AREA B - MEZZANINE FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101A	AREA A - FIRST FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A101B	AREA B - FIRST FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A102	OVERALL SECOND FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A102A	AREA A - SECOND FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A102B	AREA B - SECOND FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A103	OVERALL THIRD FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A103A	AREA A - THIRD FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A103B	AREA B - THIRD FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A104	OVERALL FOURTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A104A	AREA A - FOURTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A104B	AREA B - FOURTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A105	OVERALL FIFTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A105A	AREA A - FIFTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A105B	AREA B - FIFTH FLOOR PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A106	OVERALL ROOF PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A107	ENLARGED ROOF PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A120	ENLARGED LOBBY AND LEASING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A121	ENLARGED AMENITY AND WASTE CHUTE ROOM PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A122	ENLARGED MULTIPURPOSE AND FITNESS PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A123	ENLARGED MEZZANINE LEVEL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A131	OVERALL FIRST FLOOR RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A131.1	OVERALL MEZZANINE RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A132	OVERALL SECOND FLOOR RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A133	OVERALL THIRD FLOOR RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 2 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
921 Virginia Avenue  
Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
A134	OVERALL FOURTH FLOOR RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A135	OVERALL FIFTH FLOOR RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A136	ENLARGED RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A137	ENLARGED RCP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A201	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A202	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A203	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A204	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A205	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A206	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A207	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A208	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A209	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A210	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A211	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A212	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A213	UNIT PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A301	EXTERIOR ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A302	EXTERIOR ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A303	EXTERIOR ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A304	EXTERIOR ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A305	PARKING GARAGE ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A401	BUILDING SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A402	BUILDING SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A410	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A411	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A412	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A413	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A414	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A415	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A416	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A417	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A418	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A419	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A420	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A421	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A422	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A423	WALL SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)





Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 3 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
A450	ENLARGED BALCONY RAILING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A501	STAIR 1 & ELEV. PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A502	STAIR 2 PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A503	STAIR 3 & ELEV. PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A504	STAIR 4 PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A510	STAIR & ELEV. SECTIONS AND DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A511	STAIR & ELEV. SECTIONS AND DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A520	STAIR & ELEVATOR DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A530	BUILDING RAMP PLANS & DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A531	BUILDING RAMP PLANS & DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A601	DOOR TYPES AND SCHEDULES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A602	DOOR SCHEDULE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A603	DOOR DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A604	STOREFRONT ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A605	STOREFRONT DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A606	WINDOW DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A610	BALCONY, RAILING & TYPICAL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A611	BALCONY, RAILING & TYPICAL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A612	COLUMN & MATERIAL TRANSITION TYPICAL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A700	GENERAL FINISH INFORMATION AND INTERIOR DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A701	FIRST FLOOR FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A701.1	MEZZANINE LEVEL FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A702	SECOND FLOOR FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A703	THIRD FLOOR FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A704	FOURTH FLOOR FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A705	FIFTH FLOOR OVERALL FINISH PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A801	UNIT INTERIOR ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A802	AMENITY INTERIOR ELEVATIONS - FIRST FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A803	AMENITY INTERIOR ELEVATIONS - 2ND FLOOR AMENITY LOUNGE AND	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
A804	AMENITY INTERIOR ELEVATIONS - 2ND FLOOR LOUNGE, FITNESS, BIKE ROOM,	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>CIVIL</b>					
ALTA 1 OF 2	ALTA/NSPS LAND TITLE SURVEY	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
ALTA 2 OF 2	ATLA/NSPS LAND TITLE SURVEY	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C101	SITE DEMOLITION PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C200	SITE LAYOUT PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C300	SITE GRADING AND DRAINAGE PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C500	SITE UTILITY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C600	MAINTENANCE OF TRAFFIC PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 4 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
C800	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C801	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C802	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C803	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C804	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C805	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C806	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C807	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C808	SITE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C900	TEMPORARY STORMWATER POLLUTION PREVENTION PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C901	PERMANENT STORMWATER POLLUTION PREVENTION PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C902	STORMWATER POLLUTION PREVENTION NOTES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
C903	STORMWATER POLLUTION PREVENTION DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
TOPO	TOPOGRAPHIC SURVEY	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>ELECTRICAL</b>					
E001	ELECTRICAL NOTES, SCHEDULES AND SYMBOLS LEGEND	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E100A	AREA A - BASEMENT ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E100B	AREA B - BASEMENT ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E101.1A	AREA A - MEZZANINE ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E101.1B	AREA B - MEZZANINE ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E101A	AREA A - FIRST FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E101B	AREA B - FIRST FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E102A	AREA A - SECOND FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E102B	AREA B - FIRST FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E103A	AREA A - THIRD FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E103B	AREA B - THIRD FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E104A	AREA A - FOURTH FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E104B	AREA B - FOURTH FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E105A	AREA A - FIFTH FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E105B	AREA B - FIFTH FLOOR ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E106A	AREA A - ROOF ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E106B	AREA B - ROOF ELECTRICAL PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E201	UNIT TYPES '0A', '0B', '0C', '0D', '0E' AND '0F' ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E202	UNIT TYPES '0G', '0H', '0J', '1A', '1B' AND '1C' ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E203	UNIT TYPES '1D', '1E', '1F', '1G', '1H' AND '1J' ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E204	UNIT TYPES '1K', '1L', '1M', '1N', '2A' AND '2B' ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E205	UNIT TYPES '2C', '2D', '2E', '2F' AND '2G' ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E501	FIRST FLOOR LOBBIES AND AMENITY AREAS - ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 5 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
E502	SECOND FLOOR AMENITY AREAS - ELECTRICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E601	ELECTRICAL PANEL SCHEDULES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E602	ELECTRICAL LOAD CALCULATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
E901	ELECTRICAL METER CENTER DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>FIRE PROTECTION</b>					
FP-01	DETAILS AND SPECS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
FP-02	BASEMENT FIRE PROTECTION	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
FP-03	1ST FLOOR FIRE PROTECTION	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
FP-04	MEZZANINE FIRE PROTECTION	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
FP-05	2ND FLOOR FIRE PROTECTION	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>GENERAL</b>					
G000	COVER SHEET	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G001	GENERAL NOTES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G002	MOUNTING LOCATIONS & CLEARANCES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G003	FAIR HOUSING ACT INFORMATION	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G004	TYPICAL SIGN TYPES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G101	LIFE SAFETY AND CODE REVIEW	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G102	LIFE SAFETY BUILDING SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G103	LIFE SAFETY BUILDING SECTIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G200	BASEMENT LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G201	FIRST FLOOR LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G201.1	MEZZANINE LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G202	SECOND FLOOR LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G203	THIRD FLOOR LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G204	FOURTH FLOOR LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
G205	FIFTH FLOOR LIFE SAFETY PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>LANDSCAPE</b>					
L-101	HARDSCAPE PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-102	HARDSCAPE PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-201	LANDSCAPE PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-202	LANDSCAPE PLAN	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-301	HARDSCAPE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-302	HARDSCAPE DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-303	DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
L-401	PLANTING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>MECHANICAL</b>					
M001	MECHANICAL NOTES & SCHEDULES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M100	OVERALL MECHANICAL PLANS - BASEMENT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 6 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
M101	OVERALL MECHANICAL PLANS - FIRST FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M101.1	OVERALL MECHANICAL PLANS - MEZZANINE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M102	OVERALL MECHANICAL PLANS - SECOND FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M103	OVERALL MECHANICAL PLANS - THIRD FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M104	OVERALL MECHANICAL PLANS - FOURTH FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M105	OVERALL MECHANICAL PLANS - FIFTH FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M106	OVERALL MECHANICAL PLANS - ROOF	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M120	LOBBY LEASING AND MAINTENANCE ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M121	MAIN AMENITY ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M122	MULTI PURPOSE ROOM AND FITNESS ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M123	BIKE ROOM PET WASH AND SECONDARY LOBBY ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M201	UNIT 0A, 0B, 0C MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M202	UNIT 0D, 0E, 0F MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M203	UNIT 0G, 0H, 0J MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M204	UNIT 1A, 1B MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M205	UNIT 1C, 1D, 1E MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M206	UNIT 1F, 1G MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M207	UNIT 1H, 1J MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M208	UNIT 1K, 1L MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M209	UNIT 1M, 1N MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M210	UNIT 2A, 2B MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M211	UNIT 2C, 2D MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M212	UNIT 2E, 2F MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M213	UNIT 2G MECHANICAL PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M400	MECHANICAL SHAFT ISO'S	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M501	MECHANICAL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
M502	MECHANICAL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>PLUMBING</b>					
P001	PLUMBING NOTES & SCHEDULES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P100	OVERALL PLUMBING PLAN - UNDERSLAB	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P100.1	OVERALL PLUMBING PLAN - BASEMENT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P101	OVERALL PLUMBING PLAN - FIRST FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P101.1	OVERALL PLUMBING PLAN - MEZZANINE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P102	OVERALL PLUMBING PLAN - SECOND FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P103	OVERALL PLUMBING PLAN - THIRD FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P104	OVERALL PLUMBING PLAN - FOURTH FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P105	OVERALL PLUMBING PLAN - FIFTH FLOOR	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P106	OVERALL PLUMBING PLAN - ROOF	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 7 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
P201	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P202	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P203	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P204	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P205	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P206	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P207	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P208	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P209	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P210	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P211	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P212	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P213	ENLARGED PLUMBING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P300	WATER ROOM DETAIL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P400	PLUMBING DWV ISOMETRICS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P401	PLUMBING WATER ISOMETRICS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P403	OVERALL STORM ISOMETRIC	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P404	OVERALL WATER ISOMETRIC	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P405	OVERALL GAS ISOMETRIC	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P500	PLUMBING DETAILS - FIRESTOPPING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P501	PLUMBING DETAILS - FIRESTOPPING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P502	PLUMBING DETAILS - FIRESTOPPING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P503	PLUMBING DETAILS - FIRESTOPPING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P504	PLUMBING DETAILS - DWV	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
P505	PLUMBING DETAILS - WATER & GAS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
<b>STRUCTURAL</b>					
S001	GENERAL STRUCTURAL NOTES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S002	GENERAL STRUCTURAL NOTES	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S100	BASEMENT PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S100A	BASEMENT PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S100B	BASEMENT PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101	FIRST FLOOR PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1	MEZZANINE FRAMING PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1A	MEZZANINE FRAMING PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1B	MEZZANINE FRAMING PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1P	MEZZANINE FRAMING PLAN - POST TENSION LAYOUT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1RB	MEZZANINE FRAMING PLAN - MILD REINFORCING STEEL LAYOUT - BOTT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101.1RT	MEZZANINE FRAMING PLAN - MILD REINFORCING STEEL LAYOUT - TOP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 8 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
S101A	FIRST FLOOR PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101B	FIRST FLOOR PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101P	FIRST FLOOR PLAN - POST TENSION LAYOUT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101RB	FIRST FLOOR PLAN - MILD REINFORCING STEEL LAYOUT - BOTTOM	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S101RT	FIRST FLOOR PLAN - MILD REINFORCING STEEL LAYOUT - TOP	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102	SECOND FLOOR PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102A	SECOND FLOOR PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102B	SECOND FLOOR PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102PA	SECOND FLOOR PLAN - POST TENSION LAYOUT - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102PB	SECOND FLOOR PLAN - POST TENSION LAYOUT - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102RA	SECOND FLOOR PLAN - MILD REINFORCING STEEL LAYOUT - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102RB	SECOND FLOOR PLAN - MILD REINFORCING STEEL LAYOUT - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102WA	SECOND FLOOR WALLS - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S102WB	SECOND FLOOR WALLS - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103	THIRD FLOOR PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103A	THIRD FLOOR PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103B	THIRD FLOOR PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103P	THIRD FLOOR PLAN - POST TENSION - MILD REINFORCING LAYOUT	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103WA	THIRD FLOOR WALLS - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S103WB	THIRD FLOOR WALLS - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S104	FOURTH FLOOR PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S104A	FOURTH FLOOR PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S104B	FOURTH FLOOR PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S104WA	FOURTH FLOOR WALLS - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S104WB	FOURTH FLOOR WALLS - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S105	FIFTH FLOOR PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S105A	FIFTH FLOOR PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S105B	FIFTH FLOOR PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S105WA	FIFTH FLOOR WALLS - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S105WB	FIFTH FLOOR WALLS - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S106	ROOF PLAN - OVERALL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S106A	ROOF PLAN - AREA A	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S106B	ROOF PLAN - AREA B	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S107	SCREENWALL PLAN AND DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S110	STAIR #1 - ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S111	STAIR #2 - ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S112	STAIR #3 - ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S113	STAIR #4 - ENLARGED PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 9 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
S115	ENLARGED FRAMING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S150	UNIT FRAMING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S151	UNIT FRAMING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S152	UNIT FRAMING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S153	UNIT FRAMING PLANS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S201	BUILDING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S202	BUILDING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S203	BUILDING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S204	BUILDING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S205	BUILDING ELEVATIONS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S301	TYPICAL FOUNDATION DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S302	FOUNDATION DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S303	CONCRETE FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S306	CONCRETE SHEARWALL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S307	CONCRETE SHEARWALL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S310	POST TENSION DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S311	POST TENSION DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S313	POST TENSION DETAILS - PARKING GARAGE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S314	POST TENSION DETAILS - PARKING GARAGE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S315	VEHICLE CABLE BARRIER DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S320	CONCRETE COLUMN SCHEDULE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S321	CONCRETE BEAM SCHEDULE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S350	RETAINING WALL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S351	RETAINING WALL DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S360	UNDERGROUND DETENTION TANK DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S361	UNDERGROUND DETENTION TANK DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S362	UNDERGROUND DETENTION TANK DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S401	TYPICAL MASONRY DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S501	TYPICAL STEEL FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S505	SUPPLEMENTAL STEEL FRAMING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S506	SUPPLEMENTAL STEEL FRAMING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S507	SUPPLEMENTARY STEEL FRAMING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S508	SUPPLEMENTARY STEEL FRAMING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S509	SUPPLEMENTAL STEEL FRAMING	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S601	WOOD FRAMING DETAILS - TYPICAL	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S602	TYPICAL WOOD FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S603	TYPICAL WOOD FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S604	TYPICAL ROOF FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 10 of 14**

Printed on Tue Apr 11, 2023 at 11:34 am EDT

Job #: 23050 LINK  
921 Virginia Avenue  
Indianapolis, Indiana 46203

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
S605	ROOF FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S610	SHEARWALL SCHEDULE	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S611	STAIR FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)
S615	BALCONY FRAMING DETAILS	0	04/04/2023	04/04/2023	100% CDs (04/04/23)





Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 11 of 14**

Printed on Tue Apr 11, 2023 at 11:30 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

**Current Specifications**

Number	Description	Revision	Issued Date	Received Date	Set
<b>00 - Procurement and Contracting Requirements</b>					
000000	COVER PAGE	0	04/04/23	04/04/23	100% CDs
000101	PROJECT TITLE PAGE	0	04/04/23	04/04/23	100% CDs
000110	TABLE OF CONTENTS	0	04/04/23	04/04/23	100% CDs
003132	GEOTECHNICAL DATA	0	04/04/23	04/04/23	100% CDs
006000	PROJECT FORMS	0	04/04/23	04/04/23	100% CDs
<b>01 - General Requirements</b>					
012500	SUBSTITUTION PROCEDURES	0	04/04/23	04/04/23	100% CDs
013300	SUBMITTAL PROCEDURES	0	04/04/23	04/04/23	100% CDs
014000	QUALITY REQUIREMENTS	0	04/04/23	04/04/23	100% CDs
014200	REFERENCES	0	04/04/23	04/04/23	100% CDs
016000	PRODUCT REQUIREMENTS	0	04/04/23	04/04/23	100% CDs
017700	CLOSEOUT PROCEDURES	0	04/04/23	04/04/23	100% CDs
017823	OPERATION AND MAINTENANCE DATA	0	04/04/23	04/04/23	100% CDs
017839	PROJECT RECORD DOCUMENTS	0	04/04/23	04/04/23	100% CDs
017900	DEMONSTRATION AND TRAINING	0	04/04/23	04/04/23	100% CDs
<b>03 - Concrete</b>					
031000	CONCRETE FORMING AND ACCESSORIES	0	04/04/23	04/04/23	100% CDs
032000	CONCRETE REINFORCING	0	04/04/23	04/04/23	100% CDs
033000	CAST-IN-PLACE CONCRETE	0	04/04/23	04/04/23	100% CDs
033543	POLISHED CONCRETE FINISHING	0	04/04/23	04/04/23	100% CDs
033816	UNBONDED POST-TENSIONED CONCRETE	0	04/04/23	04/04/23	100% CDs
035413	GYP SUM CEMENT UNDERLAYMENT	0	04/04/23	04/04/23	100% CDs
<b>04 - Masonry</b>					
042200	UNIT MASONRY	0	04/04/23	04/04/23	100% CDs
042613	MASONRY VENEER	0	04/04/23	04/04/23	100% CDs
047200	CAST STONE MASONRY	0	04/04/23	04/04/23	100% CDs
<b>05 - Metals</b>					
051200	STRUCTURAL STEEL FRAMING	0	04/04/23	04/04/23	100% CDs
053100	STEEL DECKING	0	04/04/23	04/04/23	100% CDs
054000	COLD-FORMED METAL FRAMING	0	04/04/23	04/04/23	100% CDs
055000	METAL FABRICATIONS	0	04/04/23	04/04/23	100% CDs
055113	METAL PAN STAIRS	0	04/04/23	04/04/23	100% CDs



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 12 of 14**

Printed on Tue Apr 11, 2023 at 11:30 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Number	Description	Revision	Issued Date	Received Date	Set
055213	PIPE AND TUBE RAILINGS	0	04/04/23	04/04/23	100% CDs
057000	DECORATIVE METAL	0	04/04/23	04/04/23	100% CDs
057300	DECORATIVE METAL RAILING	0	04/04/23	04/04/23	100% CDs
<b>06 - Wood, Plastics, and Composites</b>					
061000	ROUGH CARPENTRY	0	04/04/23	04/04/23	100% CDs
061063	EXTERIOR ROUGH CARPENTRY	0	04/04/23	04/04/23	100% CDs
061533	WOOD PATIO DECKING	0	04/04/23	04/04/23	100% CDs
061600	SHEATHING	0	04/04/23	04/04/23	100% CDs
061643	GYPSUM SHEATHING	0	04/04/23	04/04/23	100% CDs
061715	ENGINEERED STRUCTURAL WOOD	0	04/04/23	04/04/23	100% CDs
061753	SHOP FABRICATED WOOD TRUSSES	0	04/04/23	04/04/23	100% CDs
061800	GLUE-LAMINATED CONSTRUCTION	0	04/04/23	04/04/23	100% CDs
062023	INTERIOR FINISH CARPENTRY	0	04/04/23	04/04/23	100% CDs
064023	INTERIOR ARCHITECTURAL WOODWORK	0	04/04/23	04/04/23	100% CDs
<b>07 - Thermal and Moisture Protection</b>					
071113	BITUMINOUS DAMPPROOFING	0	04/04/23	04/04/23	100% CDs
071326	SELF-ADHERING SHEET WATERPROOFING	0	04/04/23	04/04/23	100% CDs
071700	BENTONITE GEOTEXTILE WATERPROOFING SYSTEM	0	04/04/23	04/04/23	100% CDs
071800	PEDESTRIAN COATINGS	0	04/04/23	04/04/23	100% CDs
072100	THERMAL INSULATION	0	04/04/23	04/04/23	100% CDs
072119	FORMED-IN-PLACE INSULATION	0	04/04/23	04/04/23	100% CDs
072500	WEATHER BARRIERS	0	04/04/23	04/04/23	100% CDs
072600	VAPOR RETARDERS	0	04/04/23	04/04/23	100% CDs
074213	WOODGRAIN ALUMINUM SIDING	0	04/04/23	04/04/23	100% CDs
074213.16	METAL PLATE WALL PANELS	0	04/04/23	04/04/23	100% CDs
074213.23	METAL COMPOSITE MATERIAL WALL PANELS	0	04/04/23	04/04/23	100% CDs
074646	FIBER-CEMENT SIDING	0	04/04/23	04/04/23	100% CDs
075323	ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING	0	04/04/23	04/04/23	100% CDs
075423	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING	0	04/04/23	04/04/23	100% CDs
076200	SHEET METAL FLASHING AND TRIM	0	04/04/23	04/04/23	100% CDs
077100	ROOF SPECIALTIES	0	04/04/23	04/04/23	100% CDs
077200	ROOF ACCESSORIES	0	04/04/23	04/04/23	100% CDs
078100	APPLIED FIREPROOFING	0	04/04/23	04/04/23	100% CDs
078413	PENETRATION FIRESTOPPING	0	04/04/23	04/04/23	100% CDs
078443	JOINT FIRESTOPPING	0	04/04/23	04/04/23	100% CDs
079200	JOINT SEALANTS	0	04/04/23	04/04/23	100% CDs
<b>08 - Openings</b>					



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 13 of 14**

Printed on Tue Apr 11, 2023 at 11:30 am EDT

Job #: 23050 LINK  
 921 Virginia Avenue  
 Indianapolis, Indiana 46203

Number	Description	Revision	Issued Date	Received Date	Set
081113	HOLLOW METAL DOORS AND FRAMES	0	04/04/23	04/04/23	100% CDs
081416	FLUSH WOOD DOORS	0	04/04/23	04/04/23	100% CDs
081433	STILE AND RAIL WOOD DOORS	0	04/04/23	04/04/23	100% CDs
081613	FIBERGLASS DOORS	0	04/04/23	04/04/23	100% CDs
083113	ACCESS DOORS AND FRAMES	0	04/04/23	04/04/23	100% CDs
083323	OVERHEAD COILING DOORS	0	04/04/23	04/04/23	100% CDs
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS	0	04/04/23	04/04/23	100% CDs
085313	VINYL WINDOWS	0	04/04/23	04/04/23	100% CDs
087100	Door Hardware	0	04/11/23	04/11/23	Addendum 01
087100.1	Door Hardware - Door Index	0	04/11/23	04/11/23	Addendum 01
088000	Glazing	0	04/11/23	04/11/23	Addendum 01
088300	Mirrors	0	04/11/23	04/11/23	Addendum 01
088813	Fire-Resistant Glazing	0	04/11/23	04/11/23	Addendum 01
089119	Fixed Louvers	0	04/11/23	04/11/23	Addendum 01
<b>09 - Finishes</b>					
092116.23	GYPSUM BOARD SHAFT WALL ASSEMBLIES	0	04/04/23	04/04/23	100% CDs
092216	NON-STRUCTURAL METAL FRAMING	0	04/04/23	04/04/23	100% CDs
092900	GYPSUM BOARD	0	04/04/23	04/04/23	100% CDs
093013	CERAMIC TILING	0	04/04/23	04/04/23	100% CDs
095113	ACOUSTICAL PANEL CEILINGS	0	04/04/23	04/04/23	100% CDs
096513	RESILIENT BASE AND ACCESSORIES	0	04/04/23	04/04/23	100% CDs
096519	RESILIENT TILE FLOORING	0	04/04/23	04/04/23	100% CDs
096813	TILE CARPETING	0	04/04/23	04/04/23	100% CDs
096816	SHEET CARPETING	0	04/04/23	04/04/23	100% CDs
097200	WALL COVERINGS	0	04/04/23	04/04/23	100% CDs
098400	ACOUSTIC WALL PANELS	0	04/04/23	04/04/23	100% CDs
099113	EXTERIOR PAINTING	0	04/04/23	04/04/23	100% CDs
099123	INTERIOR PAINTING	0	04/04/23	04/04/23	100% CDs
099300	STAINING AND TRANSPARENT FINISHING	0	04/04/23	04/04/23	100% CDs
<b>10 - Specialties</b>					
101423	ROOM-IDENTIFICATION PANEL SIGNAGE	0	04/04/23	04/04/23	100% CDs
102800	TOILET, BATH, AND LAUNDRY ACCESSORIES	0	04/04/23	04/04/23	100% CDs
104413	FIRE PROTECTION CABINETS	0	04/04/23	04/04/23	100% CDs
104416	FIRE EXTINGUISHERS	0	04/04/23	04/04/23	100% CDs
<b>12 - Furnishings</b>					
123640	STONE COUNTERTOPS	0	04/04/23	04/04/23	100% CDs
123661.19	QUARTZ AGGLOMERATE COUNTERTOPS	0	04/04/23	04/04/23	100% CDs



Shiel Sexton Company, Inc.

**07 - Contract Documents Log**  
**Addendum 01 - 04/11/2023**  
**Page 14 of 14**

Printed on Tue Apr 11, 2023 at 11:30 am EDT

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Number	Description	Revision	Issued Date	Received Date	Set
129300	SITE FURNISHINGS	0	04/04/23	04/04/23	100% CDs
<b>14 - Conveying Equipment</b>					
142123.16	MACHINE ROOM-LESS TRACTION PASSENGER ELEVATORS	0	04/04/23	04/04/23	100% CDs
149182	TRASH CHUTES	0	04/04/23	04/04/23	100% CDs
<b>31 - Earthwork</b>					
311100	SITE CLEARING	0	04/04/23	04/04/23	100% CDs
312000	EARTH MOVING	0	04/04/23	04/04/23	100% CDs
312500	EROSION CONTROL	0	04/04/23	04/04/23	100% CDs
316100	RAMMED AGGREGATE PIER SYSTEMS	0	04/04/23	04/04/23	100% CDs
<b>32 - Exterior Improvements</b>					
321123	AGGREGATE BASE COURSE	0	04/04/23	04/04/23	100% CDs
321216	ASPHALT PAVING	0	04/04/23	04/04/23	100% CDs
321313	CONCRETE PAVING	0	04/04/23	04/04/23	100% CDs
321373	CONCRETE PAVING JOINT SEALANTS	0	04/04/23	04/04/23	100% CDs
321400	UNIT PAVING	0	04/04/23	04/04/23	100% CDs
321713	PARKING BUMPERS	0	04/04/23	04/04/23	100% CDs
321723	PAVEMENT MARKINGS	0	04/04/23	04/04/23	100% CDs
329113	SOIL PREPARATION	0	04/04/23	04/04/23	100% CDs
329200	TURF AND GRASSES	0	04/04/23	04/04/23	100% CDs
329300	PLANTS	0	04/04/23	04/04/23	100% CDs
329400	STONE AND DECORATIVE AGGREGATE	0	04/04/23	04/04/23	100% CDs
329700	VEGETATED ROOF ASSEMBLIES	0	04/04/23	04/04/23	100% CDs
329710	SYNTHETIC TURF TRAY SYSTEM	0	04/04/23	04/04/23	100% CDs
329720	WOOD DECK TILE SYSTEM	0	04/04/23	04/04/23	100% CDs
329730	ROOF PAVER SYSTEM	0	04/04/23	04/04/23	100% CDs