ADDENDUM
NO. 2

September 7, 2018

PORTER COUNTY NORTH ANNEX
BID PACKAGE NO. 2
3560 Willowcreek Rd.
Portage, IN 46368

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated August 20, 2018, by American Structurepoint, Inc. Acknowledge receipt of the Addendum in the space provided on the Proposal Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 2-1 through ADD 2-2, Guideline Schedule, and Sketch SL1, and attached Addendum No. 2 from American Structurepoint, Inc. dated September 6, 2018 consisting of 3 pages, and Specification Section 08 71 00 - Door Hardware.

A. SPECIFICATION SECTION 00 00 20 - TABLE OF CONTENTS

Add:

Section	08 71 00	Door Hardware

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

Under 3.03 Bid Categories make the following adjustments:

1. **BID CATEGORY NO. 1 - GENERAL TRADES**

   A. Add:

Section	08 71 00	Door Hardware

B. Revise:

Clarification No. 8:
Regarding Section 07 21 00 - Thermal Insulation; **Bid Category No. 3 Contractor** shall provide rock wool insulation behind phenolic panels. **Bid Category No. 2 Contractor** shall provide cavity wall insulation. **Bid Category No. 1 Contractor** shall provide remaining insulation required by this Section. Batt Insulation and Spray Foam insulation in exterior walls will be provided by future Bid Package.

2. **BID CATEGORY NO. 2 - MASONRY**

A. Revise:

Clarification No. 3:
Regarding Section 07 21 00 - Thermal Insulation; **Bid Category No. 3 Contractor** shall provide rock wool insulation behind phenolic panels. **Bid Category No. 2 Contractor** shall provide cavity wall insulation. **Bid Category No. 1 Contractor** shall provide remaining insulation required by this Section. Batt Insulation and Spray Foam insulation in exterior walls will be provided by future Bid Package.

Clarification No. 4:
Bid Category No. 3 Contractor shall provide and maintain temporary enclosures to allow for work continuance based on guideline schedule during bearing wall construction. This shall also include heaters/equipment. Cost of fuel will be paid by Owner.

3. **BID CATEGORY NO. 3 - ROOFING**

A. Revise:

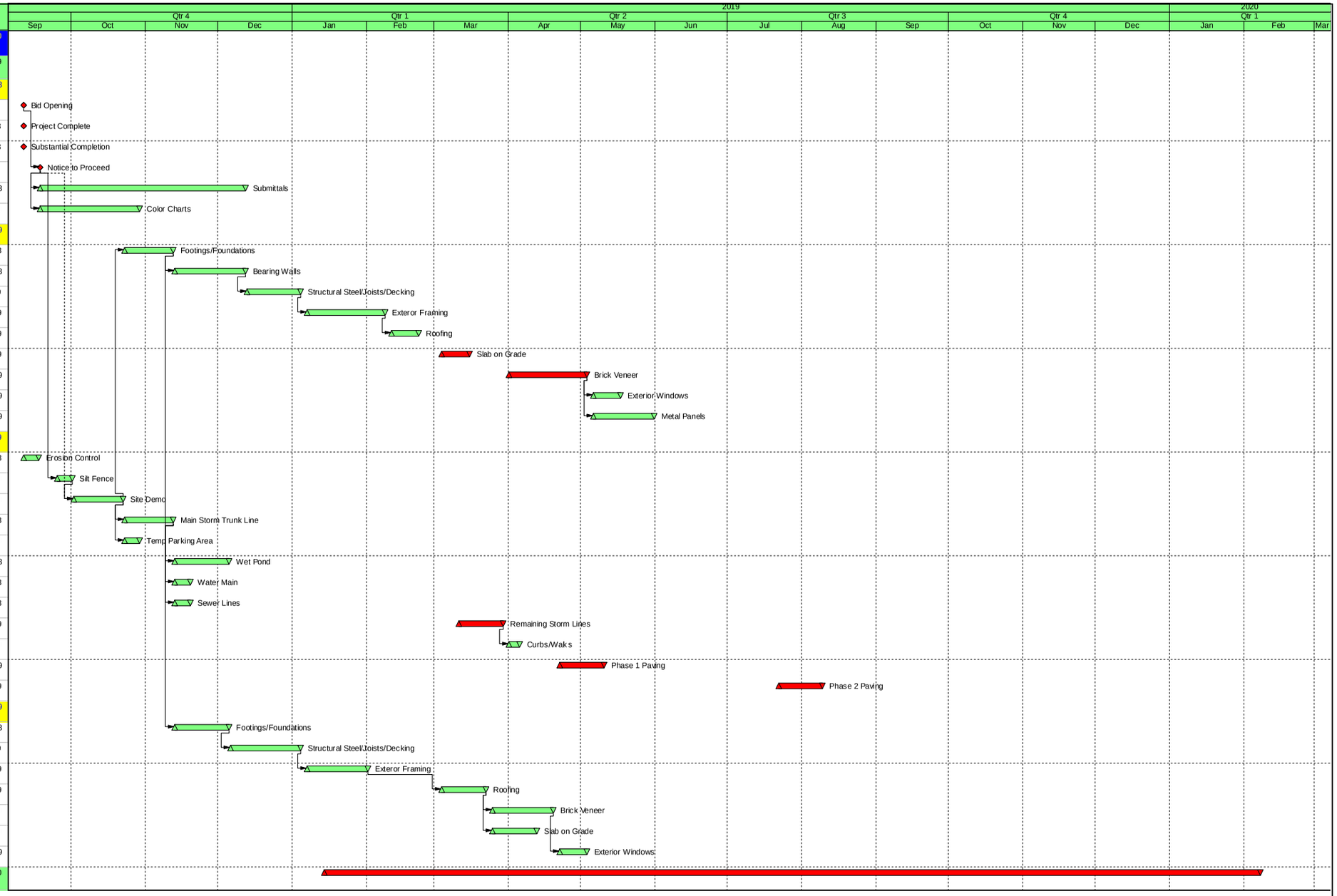
Clarification No. 4:
Regarding Section 07 21 00 - Thermal Insulation; **Bid Category No. 3 Contractor** shall provide rock wool insulation behind phenolic panels. **Bid Category No. 2 Contractor** shall provide cavity wall insulation. **Bid Category No. 1 Contractor** shall provide remaining insulation required by this Section. Batt Insulation and Spray Foam insulation in exterior walls will be provided by future Bid Package.

C. SPECIFICATION SECTION 01 32 00 - SCHEDULES AND REPORTS

Add:

Attached Guideline Schedule.

Activity Name	Original Duration	Start	Finish
Porter County North Annex	365	11-Sep-18	07-Feb-20
Bid Package #1	235	11-Sep-18	09-Aug-19
Administration	65	11-Sep-18	12-Dec-18
Bid Opening	0	11-Sep-18	
Project Complete	0		11-Sep-18
Substantial Completion	0		11-Sep-18
Notice to Proceed	0	18-Sep-18	
Submittals	60	18-Sep-18	12-Dec-18
Color Charts	30	18-Sep-18	29-Oct-18
North Annex	155	23-Oct-18	31-May-19
Footings/Foundations	15	23-Oct-18	12-Nov-18
Bearing Walls	20	13-Nov-18	12-Dec-18
Structural Steel/Joists/Decking	15	13-Dec-18	04-Jan-19
Exteror Framing	25	07-Jan-19	08-Feb-19
Roofing	10	11-Feb-19	22-Feb-19
Slab on Grade	10	04-Mar-19*	15-Mar-19
Brick Veneer	25	01-Apr-19*	03-May-19
Exterior Windows	10	06-May-19	17-May-19
Metal Panels	20	06-May-19	31-May-19
Sitework	235	11-Sep-18	09-Aug-19
Erosion Control	5	11-Sep-18	17-Sep-18
Silt Fence	5	25-Sep-18	01-Oct-18
Site Demo	15	02-Oct-18	22-Oct-18
Main Storm Trunk Line	15	23-Oct-18	12-Nov-18
Temp Parking Area	5	23-Oct-18	29-Oct-18
Wet Pond	15	13-Nov-18	05-Dec-18
Water Main	5	13-Nov-18	19-Nov-18
Sewer Lines	5	13-Nov-18	19-Nov-18
Remaining Storm Lines	15	11-Mar-19*	29-Mar-19
Curbs/Walks	5	01-Apr-19	05-Apr-19
Phase 1 Paving	15	22-Apr-19*	10-May-19
Phase 2 Paving	15	22-Jul-19*	09-Aug-19
Office Buildings	120	13-Nov-18	03-May-19
Footings/Foundations	15	13-Nov-18	05-Dec-18
Structural Steel/Joists/Decking	20	06-Dec-18	04-Jan-19
Exteror Framing	20	07-Jan-19	01-Feb-19
Roofing	15	04-Mar-19	22-Mar-19
Brick Veneer	20	25-Mar-19	19-Apr-19
Slab on Grade	15	25-Mar-19	12-Apr-19
Exterior Windows	10	22-Apr-19	03-May-19
Bid Package #2	280	14-Jan-19	07-Feb-20



Actual Work

Remaining Work

Critical Remaining Work

Milestone

Porter County North Annex

Guideline Schedule

SKILLMAN

AMERICAN STRUCTUREPOINT INC.

7260 Shadeland Station, Indianapolis, Indiana 46256
TEL 317.547.5580 FAX 317.543.0270

www.structurepoint.com

Addendum No. 2 (BP01)

Project Name: Porter County Annex and Office Building
Project Number: 2017.01279
Date: 09.06.2018

OWNER:
Porter County Board of Commissioners
155 Indiana Avenue, Suite 205
Valparaiso, IN 46383
ARCHITECT/STRUCTURAL/CIVIL
American Structurepoint, Inc.
7260 Shadeland Station
Indianapolis, Indiana 46256
317.547.5580
MECHANICAL / PLUMBING / ELECTRICAL ENGINEER
Applied Engineering Services, Inc
5975 Castle Creek Parkway N Drive, Suite 300
Indianapolis, IN 46250
CONSTRUCTION MANAGER - AGENT
The Skillman Corporation
8006 Aetna Street
Merrillville, IN 46410

This Addendum forms part of the Contract Documents for the Project and contains clarifications and revisions to the Contract Documents.

The information contained herein modifies the original Bidding Documents and all prior Addenda as applicable. Requirements of the original Bidding Documents and previous Addenda remain in effect except as modified by this Addendum.

Bidders must acknowledge receipt of this Addendum on the Bid form. Failure to acknowledge receipt of this Addendum may subject Bidder to disqualification.

The extent of this addendum is as follows:
QUESTIONS/CLARIFICATIONS

1. **Q**. Can the AISC Certification be waived on the steel fabricator?
    a. **A**: The AISC fabricator certification will be waived if the following are met:
        i. Fabricator shall submit references for at least 3 projects completed in the last 5 years of similar size and complexity.
        ii. All AISC quality requirements for the project must be met per the contract documents.
2. **Q**. Can we get a copy of the CAD file to perform our earthwork and demolition take-off?
    a. **A**: No CAD files will be provided during bidding. An electronic agreement with the contractor can be setup once bidding is complete.
3. **Q**: What are the dimensions of the water vault?
    a. **A**: See detail on sheet C612
4. **Q**. For the fire dept. connection head, are we to provide a single or double storz connection?
    a. **A**: The contractor will need to coordinate with the fire department on what is required.
5. **Q**. What type of DCDA are we to assume? Stainless Steel Ames 3000?
    a. **A**: This model is on the IAW DCDA approved list and can be used.
6. **Q**: Notes for the DCDA show an OS&Y valve on each side of the DCDA, wouldn't a standard flange valve be used on the downstream side of the DCDA if we are to mount a PIV to it?
    a. **A**: Contractor to follow detail provided by Indiana American Water. All changes/substitutions of IAW details will need to be submitted to IAW for review.
7. **Q**: How should the valve below the fire dept. connection operate, wheel, lever, etc, and what type of valve is it, check, gate, etc?
    a. **A**: Information on this can be found in the IDEM Cross Connection Control and Backflow Prevention Manual per the IAW detail.
8. **Q**: Is a drip valve below the fire dept. connection required to keep it from freezing after use?
    a. **A**: Information on this can be found in the IDEM Cross Connection Control and Backflow Prevention Manual per the IAW detail.
9. **Q**: Do you want to match the colored mortar?
    a. **A**: Yes, design intent is to color match mortar to the new brick
10. **Q**: Are we to match the existing bond? Existing is ½ bond because it's thru the wall brick and they are 16" long units. But typically 1/3 bond works better with utility brick.
    a. **A**: Design intent and specifications call for a half (running) bond.
11. **Q**: Can a detail be provide for how to build storm structure 700?
    a. **A**: Detail is on sheet C601
12. **Q**: Please refer to the East foundation wall on S101A, section view detail #13/S302. The new CMU wall shows a " Wall Veneer Tie, TYP" at what appears to be 16" O.C. vertically. Please clarify as to what tie Structural Engineer would like and does this tie go at 16" O.C. for the entire height of the wall? Also what horizontal spacing?
    a. **A**: Basis of design for this tie is H&B 213
        i. Spacing at 16" x 16"
13. **Q**: Please provide detail section of the site retaining wall.
    a. **A**: Detail provided on L200
14. **Q**: Details on S101B graphically shows 12" CMU and don't' match architectural details for CMU width.
    a. **A**: Detail 10/S302 is a typical detail showing the relationship of the wall to footing condition and general references to the architectural finishes. Wall types are called out

on S131.B that reference CMU wall and shear wall schedules, noting width required, on S401.

DOCUMENT MODIFICATIONS

PROJECT MANUAL

1. 04 2001 – Masonry Veneer
    a. Add H&B Thermal 2-Seal Wing Nut to approved anchors.
2. 08 7100 – Door Hardware
    a. Add this section in its entirety.

DRAWINGS

1. A411 & A412
    a. Basis of Design on Enclosure Gate: Basteel – Infinity Series

ATTACHMENTS

08 7100 – Door Hardware

END OF ADDENDUM

SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
3. Division 28 Section “Access Control”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. UL/ULC and CSA C22.2 – Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series

2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

a. Type, style, function, size, label, hand, and finish of each door hardware item.
b. Manufacturer of each item.
c. Fastenings and other pertinent information.
d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
e. Explanation of abbreviations, symbols, and codes contained in schedule.
f. Mounting locations for door hardware.
g. Door and frame sizes and materials.
h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
b. Complete (risers, point-to-point) access control system block wiring diagrams.
c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.
3. Twenty five years for manual surface door closer bodies.
4. Five years for motorized electric latch retraction exit devices.
5. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Bommer Industries (BO).
b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.3 POWER TRANSFER DEVICES

A. Electrified Quick Connect Continuous Geared Transfer Hinges: Provide electrified transfer continuous geared hinges with a 12" removable service panel cutout accessible without de-mounting door from the frame. Furnish with Molex™ standardized plug connectors with

sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

    a. Bommer Industries (BO) - SER-QC (# of wires) Option.
    b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - SER-QC (# wires) Option.
    c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE) - SER-QC (# wires) Option.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:
    a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
    b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) – QC-C Series.

2.4 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.

5. Manufacturers:

    a. Door Controls International (DC).
    b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

c. Trimco (TC).

B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.

1. Manufacturers:

a. Door Controls International (DC).
b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
c. Trimco (TC).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

C. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Manufacturer's Standard.

D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1, certified cylinders employing a utility patented and restricted keyway requiring the use of patented controlled keys. Provide bump resistant, fixed core cylinders as standard with solid recessed cylinder collars. Cylinders are to be factory keyed where permanent keying records will be established and maintained.

1. Provide a 6 pin multi-level master key system comprised of patented controlled keys and security and high security cylinders operated by one (1) key of the highest level. Geographical exclusivity to be provided for all security and high security cylinders and UL437 certification where specified.

a. Level 1 Cylinders: Provide utility patented controlled keyway cylinders that are furnished with patented keys available only from authorized distribution.
b. Level 2 Cylinders: Provide utility patented controlled keyway and side bar locking incorporating unique angled bottom pins for geographical exclusivity. Cylinders constructed to provide protection against bumping and picking.
c. Level 3 Cylinders: Provide utility patented controlled keyway and side bar locking incorporating unique angled bottom pins for geographical exclusivity. Cylinders to be UL437 certified and constructed to provide protection against bumping, picking, and drilling.

d. Refer to hardware sets for specified levels.

2. Manufacturers:
   a. Sargent Manufacturing (SA) - Degree Series.
   b. Corbin Russwin (RU) – Access 3 Series.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

G. Construction Keying: Provide construction master keyed cylinders.

H. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:

   a. Corbin Russwin Hardware (RU) – ML2000 Series.
   b. Sargent Manufacturing (SA) – 8200 Series.
   c. Stanley Best (BE) – 40H-UN Series.

2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.

2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.8 ELECTRIC STRIKES

A. Standard Electric Strikes: Heavy duty, cylindrical and mortise lock electric strikes conforming to ANSI/BHMA A156.31, Grade 1, UL listed for both Burglary Resistance and for use on fire rated door assemblies. Stainless steel construction with dual interlocking plunger design tested to exceed 3000 lbs. of static strength and 350 ft-lbs. of dynamic strength. Strikes tested for a minimum 1 million operating cycles. Provide strikes with 12 or 24 VDC capability and supplied standard as fail-secure unless otherwise specified. Provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike where specified.

1. Manufacturers:

a. Folger Adam EDC (FO).
b. HES (HS).
c. Security Door Controls (SD).

B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.9 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Electromechanical Options: Subject to same compliance standards and requirements as mechanical exit devices, electrified devices to be of type and design as specified in hardware sets. Include any specific controllers when conventional power supplies are not sufficient to provide the proper inrush current.

6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

10. Rail Sizing: Provide exit device rails factory sized for proper door width application.

11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
    b. Sargent Manufacturing (SA) - 80 Series.
    c. Von Duprin (VD) - 35A/98 XP Series.

C. Tube Steel Removable Mullions: ANSI/BHMA A156.3 removable steel mullions with malleable-iron top and bottom retainers and a primed paint finish.

1. Provide keyed removable feature where specified in the Hardware Sets.

2. Provide stabilizers and mounting brackets as required.

3. Provide electrical quick connection wiring options as specified in the hardware sets.

4. Manufacturers:

   a. Corbin Russwin Hardware (RU) - 700/900 Series.
   b. Sargent Manufacturing (SA) - 980S Series.
   c. Von Duprin (VD) - 9954 Series.

2.10 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Manufacturers:

   a. Corbin Russwin Hardware (RU) – DC6000 Series.
   b. LCN Closers (LC) - 4040 Series.

c. Sargent Manufacturing (SA) - 351 Series.
d. Norton Door Controls (NO) - 7500 Series.

2.11 ELECTROHYDRAULIC DOOR OPERATORS

A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Standard: Certified ANSI/BHMA A156.19.

C. Performance Requirements:

1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. LCN Closers (LC) - 4640 Series.
2. Norton Door Controls (NO) - 6000 Series.

2.12 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

a. Burns Manufacturing (BU).
b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
c. Trimco (TC).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

a. Architectural Builders Hardware (AH).
b. Rixson Door Controls (RF).
c. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.13 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. National Guard Products (NG).
2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
3. Reese Enterprises, Inc. (RE).

2.14 ELECTRONIC ACCESSORIES

A. Networked Contactless Smart Card Readers: Contactless smart cards reader to securely read access control data from 13.56 MHz contactless smart cards. The contactless smart card reader is designed for use in access control applications by providing:

1. Secure access control data exchange between the smart card and the reader utilizing key diversification and mutual authentication routines.
2. Contactless smart card reader to be designed for low current operation to enable migration from most legacy proximity applications without the need to replace existing access control panels and/or power supplies. Operating voltage: 5-16 VDC. Current requirements: 55 mA Avg, 116 mA Peak at 12 VDC.
3. Universal compatibility with most access control systems and backwards compatibility with legacy 125 KHz proximity access control formats.
4. Product construction suitable for both indoor and outdoor applications.
5. Customizable behavior for indicator lights and audible tones.

6. Manufacturers (13.56 MHz iClass):

a. Corbin Russwin Hardware (RU) - 744F709/744F719 Series.
b. HID Global (HD) - R10/R40 Series.
c. Sargent Manufacturing (SA) - 6100/6120 Series.

B. Key Switches: Key switches furnished standard with stainless steel single gang face plate with a 12/24VDC bi-color LED indicator. Integral backing bracket permits integration with any 1 1/4" or 1 1/2" mortise type cylinder. Key switches available as momentary or maintained action and in narrow face plate options.

1. Manufacturers:

a. Security Door Controls (SD) - 800 Series.
b. Securitron (SU) - MK Series.

C. Push-Button Switches: Industrial grade momentary or alternate contact, back-lighted push buttons with stainless-steel switch enclosures. 12/24 VDC bi-color illumination suitable for either flush or surface mounting.

1. Manufacturers:

    a. Security Door Controls (SD) - 400 Series.
    b. Securitron (SU) - PB Series.

D. Power Supplies: Provide Nationally Recognized Testing Laboratory Listed 12VDC or 24VDC (field selectable) filtered and regulated power supplies. Include battery backup option with integral battery charging capability in addition to operating the DC load in event of line voltage failure. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU) - BPS Series.
    b. Sargent Manufacturing (SA) - 3500 Series.
    c. Security Door Controls (SD) - 630 Series.
    d. Securitron (SU) - BPS Series.
    e. Von Duprin (VD) - PS.

2.15 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.16 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 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.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

B. The supplier is responsible for handing and sizing all products as listed in the door hardware sets. Quantities listed are for each pair of doors, or for each single door.

C. Manufacturer’s Abbreviations:

1. MK - McKinney

2. RO - Rockwood
3. SA - Sargent
4. HS - HES
5. RF - Rixson
6. NO - Norton
7. PE - Pemko
8. SU - Securitron

Hardware Sets

Set: 1.0

Doors:
Office: 104A
Annex: 177A, 177B, 183A, 183B
Description: Cylinder Only

1	Cylinder	DG1 63 41 / 34 (typ as applicable) (for mullion and/or key switch)	US32D	SA

Notes: * Balance of hardware by door manufacturer.

Set: 2.0

Doors:
Annex: 183C
Description: Exterior - Card Reader / Exit Device (storeroom) / Closer w.stop

1	Continuous Hinge	MCK-12HD	CL	MK	
1	Storeroom Lock	DG163 8204 LNNJ	US26D	SA	
1	ElectroLynx Adaptor	2004M		HS	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	⚡
1	Electric Strike	1600-CS	630	HS	⚡
1	Door Closer w/stop	351 CPS	EN	SA	
1	Threshold	2009APK FHSL14		PE	
1	Rain Guard	346C		PE	
1	Gasketing	2891APK		PE	
1	Sweep	3452AV		PE	
1	ElectroLynx Harness	QC-C3000P		MK	⚡
1	Card Reader	WR03-X (type as required for existing system) (supplied by 28 13 00)		SA	⚡
1	Wiring Diagram	WD-SYSPK			

1 Power Supply	BPS-24-1	SU	⚡

Notes: * Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation: When the correct credential is presented to the card reader the electric strike will release and allow entry. Manual egress is allowed at all times.

Set: 3.0

Doors:
Office: 109
Annex: 184A

Description: Exterior -Pair / Storeroom Lock / Closer w.stop

2 Continuous Hinge	MCK-12HD	CL	MK
1 Flush Bolt (self-latching)	2845 / 2945 (type as applicable)	US32D	RO
1 Storeroom Lock	DG163 8204 LNNJ	US26D	SA
1 Coordinator	26XX (size as applicable) x includes FB-1 filler bar	US28	RO
2 Mounting Bracket	2601AB / 2601C (type as needed)	US28	RO
2 Door Closer w/stop	351 CPS	EN	SA
1 Threshold	2009APK FHSL14		PE
1 Rain Guard	346C		PE
1 Gasketing	2891APK		PE
2 Sweep	3452AV		PE
1 Astragal	357SP		PE

Notes: * Install coordinator prior to door closers.
* Install astragal on pull side of active leaf.

Set: 4.0

Doors:
Office: 116

Description: Exterior -Storeroom Lock / Closer w.stop

1 Continuous Hinge	MCK-12HD	CL	MK
1 Storeroom Lock	DG163 8204 LNNJ	US26D	SA
1 Door Closer w/stop	351 CPS	EN	SA
1 Threshold	2009APK FHSL14		PE
1 Rain Guard	346C		PE
1 Gasketing	2891APK		PE

1	Sweep	3452AV		PE

Notes:

Set: 5.0

Doors:
Annex: 165
Description: Exterior - Alum / Card Reader / ELR Exit Device (nightlatch) / Closers w.stop / Buzzer

1	Continuous Hinge	MCK-12HD SER-12	CL	MK ⚡
1	Rim Exit Device (ELR, nightlatch)	DG163 56 8804 x less pull	US32D	SA ⚡
1	Pull	RM201 Mtg-Type 12XHD	US32D	RO
1	Blade Stop Spacer	581-2 / 1 (type as applicable)	EN	SA
1	Door Closer w/stop	351 CPS	EN	SA
1	Threshold	2009APK FHSL14		PE
1	Sweep	3452AV		PE
1	ElectroLynx Harness	QC-C**** (length / type as required)		MK ⚡
1	ElectroLynx Harness	QC-C3000P		MK ⚡
1	Card Reader	WR03-X (type as required for existing system) (supplied by 28 13 00)		SA ⚡
1	Wiring Diagram	WD-SYSPK		
1	Push Button	PB2		SU ⚡
1	Power Supply	BPS-24-1		SU ⚡
1	Relay	All required relays needed to meet mode of operation		00

Notes: * Weatherstrip supplied with aluminum frame & door.
* Coordinate all wiring & conduit with the electrical contractor.
* Push button to be located near control station in room 178. Location to be finalized with architect and owner.
* Mode of Operation: When the correct credential is presented to the card reader or when the push button is pressed the exit device latch on the active leaf retracts and allows entry. Authorized mechanical key entry is allowed at all times. Manual egress is allowed at all times.

Set: 6.0

Doors:
Annex: 103
Description: Exterior - Alum / Pair / Card Reader / ELR Exit Device (nightlatch) / Rem Mullion / Closers w.stops

1	Continuous Hinge	MCK-12HD	CL	MK

1	Continuous Hinge	MCK-12HD SER-12	CL	MK ⚡
1	Removable Mullion	L980S	PC	SA
1	Rim Exit Device (ELR, nightlatch)	DG163 56 8804 x less pull	US32D	SA ⚡
1	Rim Exit Device (dummy pull)	DG163 16 8810	US32D	SA
1	Cylinder	DG1 63 41 / 34 (typ as applicable) (for mullion and/or key switch)	US32D	SA
2	Pull	RM201 Mtg-Type 12XHD	US32D	RO
2	Blade Stop Spacer	581-2 / 1 (type as applicable)	EN	SA
2	Door Closer w/stop	351 CPS	EN	SA
1	Threshold	2009APK FHSL14		PE
1	Gasketing (for mullion)	5110BL		PE
2	Sweep	3452AV		PE
1	ElectroLynx Harness	QC-C**** (length / type as required)		MK ⚡
1	ElectroLynx Harness	QC-C3000P		MK ⚡
1	Card Reader	WR03-X (type as required for existing system) (supplied by 28 13 00)		SA ⚡
1	Wiring Diagram	WD-SYSPK		
1	Power Supply	BPS-24-1		SU ⚡
1	Relay	All required relays needed to meet mode of operation		00

Notes: * Weatherstrip supplied with aluminum frame & door.
* Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation: When the correct credential is presented to the card reader the exit device latch on the active leaf retracts and allows entry. Authorized mechanical key entry is allowed at all times. Manual egress is allowed at all times.

Set: 7.0

Doors:
Office: 123, 173
Annex: 101A
Description: Exterior - Alum / Exit Device (nightlatch) / Auto Operator / Ovhd Stop

1	Continuous Hinge	MCK-12HD	CL	MK
2	Continuous Hinge	MCK-12HD SER-12	CL	MK ⚡
1	Removable Mullion	L980S	PC	SA
1	Rim Exit Device (ELR, nightlatch)	DG163 56 8804 x less pull	US32D	SA ⚡
1	Rim Exit Device (ELR, dummy pull)	56 8810	US32D	SA ⚡
1	Rim Exit Device (nightlatch)	DG163 16 8804 863	US32D	SA
2	Cylinder	DG1 63 41 / 34 (typ as applicable) (for mullion and/or key switch)	US32D	SA
1	Pull	RM201 Mtg-Type 12XHD	US32D	RO

1	Conc Overhead Stop	1-X36	630	RF
1	Door Operator	6030 D	689	NO ⚡
1	Threshold	2009APK FHSL14		PE
1	Gasketing (for mullion)	5110BL		PE
1	Sweep	3452AV		PE
2	ElectroLynx Harness	QC-C**** (length / type as required)		MK ⚡
2	ElectroLynx Harness	QC-C3000P		MK ⚡
1	Wiring Diagram	WD-SYSPK		
2	Door Switch Actuator	505		NO ⚡
1	Keyswitch	MKAN2		SU ⚡
1	Power Supply	BPS-24-2		SU ⚡
1	Relay	All required relays needed to meet mode of operation		00

Notes: * Weatherstrip supplied with aluminum frame & door.
* Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation:
Day / Unlocked Mode - Exit device is mechanically dog down (push/pull mode) and the automatic operator is turned on. Doors can be manually pulled or pushed open. When either door switch actuator is pressed the automatic operators will open both doors.
Night / Locked Mode - Exit device is mechanically undogged and automatic operator turned off. Entry is allowed by authorized mechanical key at all times. Manual egress is allowed at all times.

Set: 8.0

Doors:
Office: 130
Description: Exterior - Alum / Exit Device (nightlatch) / Auto Operator / Ovhd Stop

1	Continuous Hinge	MCK-12HD	CL	MK
1	Rim Exit Device (nightlatch)	DG163 16 8804 863	US32D	SA
1	Pull	RM201 Mtg-Type 12XHD	US32D	RO
1	Conc Overhead Stop	1-X36	630	RF
1	Door Operator	6030 D	689	NO ⚡
1	Threshold	2009APK FHSL14		PE
1	Sweep	3452AV		PE
2	Door Switch Actuator	505		NO ⚡

Notes: * Weatherstrip supplied with aluminum frame & door.
* Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation:
Day / Unlocked Mode - Exit device is mechanically dog down (push/pull mode) and the automatic

operator is turned on. Doors can be manually pulled or pushed open. When either door switch actuator is pressed the automatic operators will open both doors.
Night / Locked Mode - Exit device is mechanically undogged and automatic operator turned off. Entry is allowed by authorized mechanical key at all times. Manual egress is allowed at all times.

Set: 9.0

Doors:
Office: 104B, 121B, 129B, 132, 145
Description: Exterior - Exit Device (exit only) / Closer w.stop

1 Continuous Hinge	MCK-12HD	CL	MK
1 Rim Exit Device (exit only)	LD 8810	US32D	SA
1 Door Closer w/stop	351 CPS	EN	SA
1 Threshold	2009APK FHSL14		PE
1 Rain Guard	346C		PE
1 Gasketing	2891APK		PE
1 Sweep	3452AV		PE

Set: 10.0

Doors:
Annex: 101B
Description: Exterior - Pair / Alum / Exit Device (dummy pulls) / Rem Mullion / Closers w.stops

2 Continuous Hinge	MCK-12HD	CL	MK
1 Removable Mullion	L980S	PC	SA
2 Rim Exit Device (dummy pull)	DG163 16 8810	US32D	SA
1 Cylinder	DG1 63 41 / 34 (typ as applicable) (for mullion and/or key switch)	US32D	SA
2 Pull	RM201 Mtg-Type 12XHD	US32D	RO
2 Blade Stop Spacer	581-2 / 1 (type as applicable)	EN	SA
2 Door Closer w/stop	351 CPS	EN	SA
1 Threshold	2009APK FHSL14		PE
1 Gasketing (for mullion)	5110BL		PE
2 Sweep	3452AV		PE

Notes: * Weatherstrip supplied with aluminum frame & door.
* Mode of Operation: During open hours the exit devices are mechanically dogged down (push/pull mode).

Set: 11.0– Not Used

Description: Interior - Pair / Alum / Push.Pull Sets / Auto Oper / Ovhd Stops

2	Continuous Hinge	MCK-12HD	CL	MK
2	Push Pull	RM251 Mtg-Type 12XHD	US32D	RO
2	Conc Overhead Stop	1-X36	630	RF
2	Door Operator	6030 D	689	NO ⚡
2	Door Switch Actuator	505		NO ⚡

Notes: * Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation: When either door switch actuator is pressed the automatic operators open both doors. Manual entry or egress is allowed at all times.

Set: 12.0– Not Used

Description: Interior - Pair / Alum / Push.Pull Sets / Closers w.stops

2	Continuous Hinge	MCK-12HD	CL	MK
2	Push Pull	RM251 Mtg-Type 12XHD	US32D	RO
2	Door Closer w/stop	351 CPS	EN	SA

Notes:

Set: 13.0

Doors:
Annex: 164
Description: Interior - Card Reader / Exit Device (storeroom) / Closer w.stop

3	Hinge	TA2714 (size per spec) NRP (as applicable)	US26D	MK
1	Storeroom Lock	DG163 8204 LNNJ	US26D	SA
1	ElectroLynx Adaptor	2004M		HS ⚡
1	SMART Pac Bridge Rectifier	2005M3		HS ⚡
1	Electric Strike	1600-CS	630	HS ⚡
1	Door Closer w/stop	351 CPS	EN	SA
3	Silencer	608 / 609 (type as applicable)		RO
1	ElectroLynx Harness	QC-C3000P		MK ⚡
1	Card Reader	WR03-X (type as required for existing system) (supplied by 28 13 00)		SA ⚡
1	Wiring Diagram	WD-SYSPK		
1	Power Supply	BPS-24-1		SU ⚡

Notes: * Coordinate all wiring & conduit with the electrical contractor.
* Mode of Operation: When the correct credential is presented to the card reader the electric strike will release and allow entry. Manual egress is allowed at all times.

Set: 14.0

Doors:
Annex: 184B
Description: Interior - Storeroom Lock / Closer / Wall Stop

3	Hinge	TA2714 (size per spec) NRP (as applicable)	US26D	MK
1	Storeroom Lock	DG163 8204 LNNJ	US26D	SA
1	Door Closer	351 P10 / O (arm type as applicable)	EN	SA
1	Wall Stop	400 / 403 (type as applicable)	US26D	RO
3	Silencer	608 / 609 (type as applicable)		RO

END OF SECTION 087100