GOVERNMENT OF THE DISTRICT OF COLUMBIA DEPARTMENT OF GENERAL SERVICES







Addendum No. 05 To Invitation for Bid ("IFB") No. DCAM-20-CS-IFB-0004

MPD Blue Plains Impound Lot Modernization

Issued: July 6, 2020

This Addendum No. 05 is issued on July 6, 2020. Except as modified hereby, the Invitation for Bid ("IFB") remains unmodified.

<u>Item No. 01</u>: Clarifications on Door Hardware and additional questions and answers are attached as <u>Exhibit 1</u>.

Date: 7.6.2020

<u>Item No. 02</u>: The Specifications for Door Hardware are attached as <u>Exhibit 2</u>.

By: Manklin Gustin
Franklin Austin, CPPB, CPM

Contracting Officer

- End of Addendum No. 05

Exhibit 1

Clarifications on Door Hardware And Additional Questions & Answers (See following page)

Invitation for Bids ("IFB") No. DCAM-20-CS-IFB-0004

Blue Plains Impound Lot Modernization

Clarifications on Door Hardware And Additional Questions & Answers

RFI No.	Questions	Department Responses
60	Please provide us with a door / hardware schedule, the specifications for door hardware does not identify hardware types/ sets.	It seems that the specification section 087100 was missing the pages on the components in the sets. See attached the complete specification section as <u>Exhibit 2</u> . The door schedule is on A602 it indicates the hardware sets.
61	What is the extent of work for the existing security camera and infrastructure (conduit)? Amendment 3 - Item 52 identifies work by OCTO, please confirm.	Bidders are responsible for all conduit in drawings, TRICORE and OCTO are under separate contract for this project.
62	Please provide a HAZMAT report for Question No. 8 (No. Amendment 03).	No HAZMAT report for this project, the main building only; bidder will need to pay for abatement services.
63	Can we request an allowance be put in towards PEPCO charges to relocate their poles on the property? It will not be possible to obtain a proposal from PEPCO for these charges by the bid submission date?	No Allowance for Pepco. It is relocating 3 existing Pepco poles on site.

Exhibit 2

Specifications for Door Hardware (See following page)

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SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Finish Hardware for door openings, except as otherwise specified herein.
 - 1. Door hardware for steel (hollow metal) doors.
 - 2. Door hardware for aluminum doors.
 - Door hardware for wood doors.
 - 4. Door hardware for other doors indicated.
 - 5. Keyed cylinders as indicated.
- B. Related Sections:
 - 1. Division 6: Rough Carpentry.
 - 2. Division 8: Aluminum Doors and Frames
 - 3. Division 8: Hollow Metal Doors and Frames.
 - 4. Division 8: Wood Doors.
 - 5. Division 26 Electrical
 - 6. Division 28: Electronic Security
- C. References: Comply with applicable requirements of the following standards. Where these standards conflict with other specific requirements, the most restrictive shall govern.
 - 1. Builders Hardware Manufacturing Association (BHMA)
 - 2. NFPA 101 Life Safety Code
 - 3. NFPA 80 Fire Doors and Windows
 - 4. ANSI A156.1 Butts and Hinges
 - 5. ANSI A156.2 Bored and Preassembled Locks and Latches
 - 6. ANSI A156.3 Exit Devices
 - 7. ANSI A156.4 Door Controls Closers
 - 8. ANSI A156.5 Cylinders and Input Devices for Locks
 - 9. ANSI A156.6 Architectural Door Trim
 - 10. ANSI A156.7 Template Hinge Dimensions
 - 11. ANSI A156.8 Door Controls Overhead Stops and Holders
 - 12. ANSI A156.13 Mortise Locks & Latches
 - 13. ANSI A156.16 Auxiliary Hardware
 - 14. ANSI A156.18 Materials and Finishes
 - 15. ANSI A156.19 Power Assist and Low Energy Power Operated Doors
 - 16. ANSI A156.21 Thresholds
 - 17. ANSI A156.22 Door Gasketing and Edge Seal Systems
 - 18. ANSI A156.25 Electrified Locking Devices
 - 19. ANSI A156.26 Continuous Hinges
 - 20. ANSI A156.28 Recommended Practices for Mechanical Keying Systems
 - 21. ANSI A156.30 High Security Cylinders
 - 22. ANSI A156.31 Electric Strikes and Frame Mounted Actuators
 - 23. UL10C Positive Pressure Fire Test of Door Assemblies
 - 24. ANSI-A117.1 Accessible and Usable Buildings and Facilities 2009
 - 25. DHI /ANSI A115.IG Installation Guide for Doors and Hardware

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E. Intent of Hardware Groups

- Should items of hardware not definitely specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
- Where items of hardware aren't definitely or correctly specified, are required for completion of the Work, a written statement of such omission, error, or other discrepancy to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.

F. Allowances

1. Refer to Division 1 for allowance amount and procedures.

G. Alternates

1. Refer to Division 1 for Alternates and procedures.

1.2 SUBSTITUTIONS:

A. Comply with Division 1.

1.3 SUBMITTALS:

- A. Comply with Division 1.
- B. Special Submittal Requirements: Combine submittals of this Section with Sections listed below to ensure the "design intent" of the system/assembly is understood and can be reviewed together.
- C. Product Data: Manufacturer's specifications and technical data including the following:
 - 1. Detailed specification of construction and fabrication.
 - 2. Manufacturer's installation instructions.
 - 3. Wiring diagrams for each electric product specified. Coordinate voltage with electrical before submitting.
 - 4. Submit 6 copies of catalog cuts with hardware schedule.
 - 5. Provide 9001-Quality Management and 14001-Environmental Management for products listed in Materials Section 2.2
- D. Shop Drawings Hardware Schedule: Submit 6 complete reproducible copy of detailed hardware schedule in a vertical format.
 - 1. List groups and suffixes in proper sequence.
 - 2. Completely describe door and list architectural door number.
 - 3. Manufacturer, product name, and catalog number.
 - 4. Function, type, and style.
 - 5. Size and finish of each item.
 - 6. Mounting heights.
 - 7. Explanation of abbreviations and symbols used within schedule.
 - 8. Detailed wiring diagrams, specially developed for each opening, indicating all electric hardware, security equipment and access control equipment, and door and frame rough-ins required for specific opening.

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- E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
 - 1. Templates, wiring diagrams and "reviewed Hardware Schedule" of electrical terms to electrical for coordination and verification of voltages and locations.
- F. Samples: (If requested by the Architect)
 - 1. 1 sample of Lever and Rose/Escutcheon design, (pair).
 - 2. 3 samples of metal finishes
- G. Contract Closeout Submittals: Comply with Division 1 including specific requirements indicated.
 - 1. Operating and maintenance manuals: Submit 3 sets containing the following.
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representative for each manufacturer.
 - d. Parts list for each product.
 - 2. Copy of final hardware schedule, edited to reflect, "As installed".
 - 3. Copy of final keying schedule
 - 4. As installed "Wiring Diagrams" for each piece of hardware connected to power, both low voltage and 110 volts.
 - 5. One set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

- A. Comply with Division 1.
 - 1. Statement of qualification for distributor and installers.
 - 2. Statement of compliance with regulatory requirements and single source responsibility.
 - 3. Distributor's Qualifications: Firm with 3 years experience in the distribution of commercial hardware.
 - a. Distributor to employ full time Architectural Hardware Consultants (AHC) for the purpose of scheduling and coordinating hardware and establishing keying schedule.
 - b. Hardware Schedule shall be prepared and signed by an AHC.
 - 4. Installer's Qualifications: Firm with 3 years experienced in installation of similar hardware to that required for this Project, including specific requirements indicated.
 - 5. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.
 - a. Provide UL listed hardware for labeled and 20 minute openings in conformance with requirements for class of opening scheduled.
 - b. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
 - 6. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.

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B. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping: Comply with Division 1.
 - 1. Deliver products in original unopened packaging with legible manufacturer's identification.
 - 2. Package hardware to prevent damage during transit and storage.
 - 3. Mark hardware to correspond with "reviewed hardware schedule".
 - 4. Deliver hardware to door and frame manufacturer upon request.
- B. Storage and Protection: Comply with manufacturer's recommendations.

1.6 PROJECT CONDITIONS:

- A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
- B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1.7 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:

1. Closers: Twenty-five years

2. Exit Devices: Five Years

3. Hinges and Locksets: Limited Lifetime

4. Cylinders: Three years

5. All other Hardware: One year

1.8 OWNER'S INSTRUCTION:

A. Instruct Owner's personnel in operation and maintenance of hardware units.

1.9 MAINTENANCE:

- A. Extra Service Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals Section.
 - 1. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
 - 2. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.
 - 3. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra service materials.

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B. Maintenance Service: Submit for Owner's consideration maintenance service agreement for electronic products installed.

PART 2 - PRODUCTS

MANUFACTURERS: 2.1

A. The following manufacturers are approved subject to compliance with requirements of the Contract Documents. Approval of manufacturers other than those listed shall be in accordance with Division 1.

Reese, K.N. Crowder

<u>Item</u> :	Manufacturer:	Approved:
Hinges	Stanley	Bommer, McKinney
Continuous Hinges	Stanley	Select, ABH
Locksets	Best	Sargent, Schlage
Cylinders	Best	Sargent, Schlage
Exit Devices	Precision	Von Duprin, Detex
Closers	Dorma	Norton, Sargent
Access Control System	By Owner's Security Int	egrator
Automatic Operators	Dorma	LCN, Horton
Protection Plates	Trimco	Burns, Rockwood
Door Stops	Trimco	Burns, Rockwood

National Guard

2.2 MATERIALS:

A. Hinges:

1. Template screw hole locations

Threshold & Gasketing

- 2. Minimum of 2 permanently lubricated non-detachable bearings
- 3. Equip with easily seated, non-rising pins
- 4. Sufficient size to allow 180-degree swing of door
- Furnish hinges with five knuckles and flush [concealed] bearings 5.
- 6. Provide hinge type as listed in schedule.
- 7. Furnish 3 hinges per leaf to 7 foot 6 inch height. Add one for each additional 30 inches in height or
- 8. Tested and approved by BHMA for all applicable ANSI Standards for type, size, function and finish
- 9. UL10C listed for Fire rated doors.

Geared Continuous Hinges: В.

- 1. Tested and approved by BHMA for ANSI A156.26-1996 Grade 1
- 2. Anti-spinning through fastener
- UL10C listed for 3 hour Fire rating 3.
- Non-handed 4.
- 5. Lifetime warranty

C. Mortise Type Locks and Latches:

- 1. Tested and approved by BHMA for ANSI A156.13, Series 1000, Operational Grade 1, Extra-Heavy Duty, Security Grade 2 and be UL10C.
- 2. Furnish UL or recognized independent laboratory certified mechanical operational testing to 4 million cycles minimum.

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- 3. Provide 9001-Quality Management and 14001-Environmental Management.
- 4. Fit ANSI A115.1 door preparation
- 5. Functions and design as indicated in the hardware groups
- Solid, one-piece, 3/4-inch (19mm) throw, anti-friction latchbolt made of self-lubricating stainless steel
- 7. Deadbolt functions shall have 1 inch (25mm) throw bolt made of hardened stainless steel
- 8. Latchbolt and Deadbolt are to extend into the case a minimum of 3/8 inch (9.5mm) when fully extended
- 9. Auxiliary deadlatch to be made of one piece stainless steel, permanently lubricated
- 10. Provide sufficient curved strike lip to protect door trim
- 11. Lever handles must be of forged or cast brass, bronze or stainless steel construction and conform to ANSI A117.1. Levers that contain a hollow cavity are not acceptable
- 12. Lock shall have self-aligning, thru-bolted trim
- 13. Levers to operate a roller bearing spindle hub mechanism
- 14. Mortise cylinders of lock shall have a concealed internal setscrew for securing the cylinder to the lockset. The internal setscrew will be accessible only by removing the core, with the control key, from the cylinder body.
- 15. Spindle to be designed to prevent forced entry from attacking of lever
- 16. Provide locksets with 7-pin removable and interchangeable core cylinders
- 17. Each lever to have independent spring mechanism controlling it
- 18. Core face must be the same finish as the lockset.

D. Exit Devices:

- 1. Exit devices to meet or exceed BHMA for ANSI 156.3, Grade 1.
- Exit devices to be tested and certified by UL or by a recognized independent laboratory for mechanical operational testing to 10 million cycles minimum with inspection confirming Grade 1 Loaded Forces have been maintained.
- 3. Exit devices chassis to be investment cast steel, zinc dichromate.
- 4. Exit devices to have stainless steel deadlocking ¾" through latch bolt.
- 5. Exit devices to be equipped with sound dampening on touchbar.
- 6. Non-fire rated exit devices to have cylinder dogging.
- 7. Non-fire rated exit devices to have ¼" minimum turn hex key dogging.
- 8. Touchpad to be "T" style constructed of architectural metal with matching metal end caps.
- 9. Touchbar assembly on wide style exit devices to have a ¼" clearance to allow for vision frames.
- 10. All exposed exit device components to be of architectural metals and "true" architectural finishes.
- 11. Provide strikes as required by application.
- 12. Fire exit hardware to conform to UL10C and UBC 7-2. UL tested for Accident Hazard.
- 13. The strike is to be black powder coated finish.
- 14. Exit devices to have field reversible handing.
- 15. Provide heavy duty vandal resistant lever trim with heavy duty investment cast stainless steel components and extra strength shock absorbing overload springs. Lever shall not require resetting. Lever design to match locksets and latchsets.
- 16. Provide 9001-Quality Management and 14001-Environmental Management.

E. Cylinders:

- 1. Provide the necessary cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
- 2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
- 3. Coordinate and provide as required for related sections.

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F. Door Closers shall:

- 1. Tested and approved by BHMA for ANSI 156.4, Grade 1
- 2. UL10C certified
- 3. Provide 9001-Quality Management and 14001-Environmental Management.
- 4. Conform to ANSI 117.1
- 5. Maximum 2 7/16 inch case projection with non-ferrous cover
- 6. Separate adjusting valves for closing and latching speed, and backcheck
- 7. Provide adapter plates, shim spacers and blade stop spacers as required by frame and door conditions
- 8. Full rack and pinion or cam and roller type closer with 1½" minimum bore as specified in Hardware
- 9. Mount closers on non-public side of door, unless otherwise noted in specification
- 10. Closers shall be non-handed, non-sized and multi-sized.

G. Automatic Operators shall:

- 1. Be listed under UL10C and UL325.
- 2. Be capable of functioning on doors weighing up to 350 lb.
- 3. Conform to ANSI A156.19 and be suitable for use in low energy applications.
- 4. Be non-handed.
- 5. Incorporate the following adjustment capabilities: opening force, closing force, open speed, close speed, and open check speed.
- 6. Incorporate a non-ferrous cover not exceeding 6 inches square in section.
- 7. Incorporate a separate On-Off-Hold Open switch.
- 8. Be microprocessor controlled and incorporate a position encoder.
- 9. Readily function with standard activation and safety sensors, provide activation devices as required.
- 10. Function as a manual door closer without power applied, and shall power open/ spring close with power applied.
- 11. Function with 115 VAC electrical service for operator and standard low voltage connections for activation.
- 12. Units must be FURNISHED and INSTALLED by AAADM Certified Installer
- H. Door Stops: Provide a dome floor or wall stop for every opening as listed in the hardware sets.
 - 1. Wall stop and floor stop shall be wrought bronze, brass or stainless steel.
 - 2. Provide fastener suitable for wall construction.
 - 3. Coordinate reinforcement of walls where wall stop is specified.
 - 4. Provide dome stops where wall stops are not practical. Provide spacers or carpet riser for floor conditions encountered
- I. Overhead Stops: Provide a Surface mounted or concealed overhead when a floor or wall stop cannot be used or when listed in the hardware set.
 - 1. Concealed overhead stops shall be heavy duty bronze or stainless steel.
 - 2. Surface overhead stops shall be heavy duty bronze or stainless steel.
- J. Kickplates: Provide with four beveled edges ANSI J102, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.

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- K. Mop plates: Provide with four beveled edges ANSI J103, 6 inches high by width less 1 inch on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- L. Power Supply: Provide power supply for Motorized Latch Retraction (MLR) exit devices
 - 1. UL Listed for Class II
 - 2. Include circuit breakers for protection of motherboard
 - 3. 115 or 230 Volt user selectable switch, with AC input= 115 Volt at 1 Amp
 - 4. Control module shall include Fire alarm terminal and Auxiliary contacts for remote signaling.
- M. Quick Connect Power Transfer: Power transfer device shall be a steel housing and flexible tube. Secure and inconspicuous channel is to bring power from the frame to the door.
 - 1. Precision EPT-12C
 - 2. Tube shall contain 12 Wire bundle with Stanley Quick Connect Connectors one 4 wire connector consisting of two 18AWG wires and 2 24AWG wires and one 8 wire connector with 8 24AWG wires.
- N. Electric Door Strike: Certified by ANSI/BHMA 156.31, Grade 1. and listed for Burglary Protection ANSI/UL1034 Grade 1.
 - 1. For General use provide fail-secure electric strike and with fire-rated device.
 - 2. Listed UL10C for Fire Door assemblies
 - 3. Latchbolt monitor switch option when specified in hardware sets.
 - 4. Provide the electric strike in the appropriate model that will accept a 5/8" or 3/4" latchbolt.
- O. Door Position Switch: Provide door position switch for door status monitoring as indicated in hardware sets.
 - 1. At all fired rated doors the door and frames, position switch preparation will be provided by the door and frame manufacturer or by an authorized label service agent.
- P. Quick Connect plug-in connectors: Stanley quick connect plug-in must be used with a combination of the following components to work as a complete plug and play system.
 - 1. Precision Exit Devices 2000 Series, DE, DS, TS, TDS, LDS, ELR
 - 2. To include Quick connectors to Precision Electric Exit device products Prefix "C" Example (**C** ELR 2108 x V4908A TS)
 - 3. Precision 12 Conductor Electric Power Transfer EPT-12C
- Q. Quick Connect Wire Harnesses: The Quick Connect wire harness shall have of one four wire connector and one eight wire connector. The four wire connector has two 18AWG and two 24AWG wires. The eight wire connector has eight 24AWG wires Stanley quick connect wire harnesses are available in various length's, 3" (76mm), 6" (152mm), 12" (304mm), 26" (660mm) 32" (812mm) 38" (965mm), 44" (1117mm), 50" (1270mm) and 192" (4876mm).
 - 1. Wire Harness that is terminated at both ends is specified as WH-size (Example WH-3).
 - 2. Wire Harness that is terminated at one end with exposed pin head at the other is specified as WH-size P (Example WH-3P).
 - 3. Wire Harness 6" (152mm) terminated at one end with bray leads on the other is specified as WH-6E.

Notes The Wire harnesses with suffix "E" has brae wire ends, is used to connect the quick connect harness to a hardwired connection.

Wire harnesses of different lengths may be combined to form a desired length

The maximum size hole needed to pass through the quick connect plug is 1" (25MM).

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- R. Weatherstripping: Provide at head and jambs only those units where resilient or flexible seal strip is easily replaceable. Where bar-type weatherstrip is used with parallel arm mounted closers install weatherstrip first.
 - 1. Weatherstrip shall be resilient seal of Neoprene, Polyurethane, Pile, Nylon Brush or Silicone as specified in Hardware Sets
 - 2. UL10C Positive Pressure rated seal set when required.
- S. Door Bottoms/Sweeps: Surface mounted or concealed door bottom where listed in the hardware sets.
 - 1. Door seal shall be resilient seal of Neoprene, Polyurethane, Nylon Brush or Silicone as specified in Hardware Sets
 - 2. UL10C Positive Pressure rated seal set when required.
- Thresholds: Thresholds shall be aluminum beveled type with maximum height of ½" for conformance with ADA requirements. Furnish as specified and per details. Provide fasteners and screws suitable for floor conditions.
- U. Provide one wall mounted Telkee, Lund or MMF series key cabinet complete with hooks, index and tags to accommodate 50% expansion. Coordinate mounting location with architect.
- V. Silencers: Furnish silencers on all interior frames, 3 for single doors, 2 for pairs. Omit where any type of seals occur.

2.3 FINISH:

- A. Designations used in Schedule of Finish Hardware 3.05, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
- B. Powder coat door closers to match other hardware, unless otherwise noted.
- C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

2.4 KEYS AND KEYING:

- A. Provide keyed brass construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the Owner's permanent keying system or furnished in the same keyway (or key section) as the Owner's permanent keying system. Permanent cores and keys (prepared according to the accepted keying schedule) will be furnished to the Owner.
- B. Cylinders, removable and interchangeable core system: Best CORMAX™ Patented 7-pin.
- C. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."
- D. Transmit Grand Masterkeys, Masterkeys and other Security keys to Owner by Registered Mail, return receipt requested.
- E. Furnish keys in the following quantities:

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- 1. 1 each Grand Masterkeys
- 2. 4 each Masterkeys
- 3. 2 each Change keys each keyed core
- 4. 15 each Construction masterkeys
- 5. 1 each Control keys
- F. The Owner, or the Owner's agent, will install permanent cores and return the construction cores to the Hardware Supplier. Construction cores and keys remain the property of the Hardware Supplier.
- G. Keying Schedule: Arrange for a keying meeting, and programming meeting with Architect Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying and programming complies with project requirements. Furnish 3 typed copies of keying and programming schedule to Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of conditions: Examine doors, frames, related items and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.

3.2 HARDWARE LOCATIONS:

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
 - 1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
 - 2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
 - 3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

3.3 INSTALLATION:

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.
- C. Install Conforming to ICC/ANSI A117.1 Accessible and Usable Building and Facilities.
 - 1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.
- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

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3.4 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.
 - 1. Check and adjust closers to ensure proper operation.
 - 2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
 - a. Verify levers are free from binding.
 - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
 - 3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.

3.5 SCHEDULE OF FINISH HARDWARE:

Option List

<u>Code</u>	<u>Description</u>
С	QUICK CONNECT WIRING OPTION
CS	CUSHION STOP
TS	TOUCHBAR MONITORING SWITCH
CSK	COUNTER SINKING OF KICK and MOP PLATES
MLR	MOTORIZED LATCH RETRACTION
NRP	NON REMOVEABLE PIN STD/HEAVY WT HINGE
VIN	VISUAL INDICATOR
EPT Prep	EPT Prep (full mortise)
B4E-HEAVY-KP	BEVELED 4 EDGES - KICK PLATES
1/4-20 SSMS/EA	STAINLESS MACHINE SCREWS/EXPANSION ANC.

Finish List

<u>Code</u>	<u>Description</u>
AL	Aluminum
32D	Satin Stainless Steel
626	Satin Chromium Plated
630	Satin Stainless Steel
689	Aluminum Painted
630W	Stainless Steel, Weatherized
GREY	Grey
US26D	Chromium Plated, Dull

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Hardware Sets

SET #1 - ACS ADA EXTER Entry (Doors: 100A, 104-C)

1Cont	inuous Hinge	661HD UL 86" EPT Prep	AL	ST
1	Power Transfer	EPT-12C	PR	
1	Exit Device	C MLR TS 2103 x 2003C	630	PR
1	Rim Cylinder	12E-72 PATD	626	BE
1	Operator	ED 100	689	DM
2	Touchless Actuator	946T HW - MO	32D	RC
1	Door Stop	1209	630	TR
1	Weatherstrip	BY DOOR MANUFACTURER	BY	
1	Saddle Threshold	425 36" 1/4-20 SSMS/EA	AL	NA
1	Door Position Switch	MC4M	DM	
1	Card Reader	BY OWNER'S SECURITY INTEGRATOR	BY	
1	Remote Release Button	BY OWNER'S SECURITY INTEGRATOR	BY	
1	Wire Harness	WH-6	ST	
1	Wire Harness	WH-192P	ST	
1	Power Supply	RPSMLR2	PR	
1	Wiring Diagram	BY HARDWARE SUPPLIER	BY	

NOTE: COORDINATION WITH ELECTRICAL AND SECURITY REQUIRED.

OPERATION DESCRIPTION: Door normally closed, latched and secure. Access by presenting valid credential to reader, programming by access control system (ACS), remote release or mechanical key. Coordinate ADA operator and actuators with ACS. With absence or loss of power door will remain locked on the outside. Immediate free egress at all times.

SET #2 - ACS ADA Reception (Doors: 104-A)

3	Hinges	CB168 4 1/2 X 4 1/2 NRP	US26D	ST
1	Lockset	45H-7UNR14H PATD	626	BE
1	Electric Strike	BES-F2164	BE	
1	Operator	ED 100	689	DM
2	Touchless Actuator	946T HW - MO	32D	RC
1	Kick Plate	K0050 10" x 34" B4E-HEAVY-KP CSK	630	TR
1	Wall Bumper	1270CX	626	TR
3	Door Silencers	1229A	GREY	TR
1	Door Position Switch	MC4	DM	
1	Card Reader	BY OWNER'S SECURITY INTEGRATOR	BY	
1	Wiring Diagram	BY HARDWARE SUPPLIER	BY	

NOTE: COORDINATION WITH ELECTRICAL AND SECURITY REQUIRED.

OPERATION DESCRIPTION: Door normally closed, latched and secure. Access by presenting valid credential to reader, programming by access control system (ACS) or mechanical key. Coordinate ADA operator and actuators with ACS. With absence or loss of power door will remain locked on the outside. Immediate free egress at all times.

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SET #3 - EXTER Mech – Utility (Doors: 102-A, 110-A)

3 1 1 1 1 1	Hinges Storeroom Lock Closer Door Stop Gasketing Sweep Saddle Threshold	CB199 4 1/2 X 4 1/2 NRP 45H-7D14H PATD 8916 S-DS 1209 110 NA 1 x 36" 2 x 84" 600 A 36" 425 36" 1/4-20 SSMS/EA	630W 626 689 630 NA NA	ST BE DM TR
SET #4	Office (Doors: 108-A)			
3 1 1 3	Hinges Office Lock Wall Bumper Door Silencers	CB179 4 1/2 X 4 1/2 45H-7AT14H PATD 1270CX 1229A	US26D 626 626 GREY	ST BE TR TR
SET #5	– File (Doors: 109-A)			
3 1 1 1 1 3	Hinges Office Lock w/ DB Closer Kick Plate Wall Bumper Door Silencers	CB179 4 1/2 X 4 1/2 45H-7AB14H PATD TS9315 T K0050 10" x 34" B4E-HEAVY-KP CSK 1270CX 1229A	US26D 626 689 630 626 GREY	ST BE DM TR TR TR
SET #6	– Locker (Doors: 105-A)			
3 1 1 1 1 3	Hinges Passage Set Closer Kick Plate Wall Bumper Door Silencers	CB168 4 1/2 X 4 1/2 45H-0N14H TS9315 SPT K0050 10" x 34" B4E-HEAVY-KP CSK 1270CX 1229A	US26D 626 689 630 626 GREY	ST BE DM TR TR TR
SET #7	- Water Closet (Doors: 101-A)			
3 1 1 1 1 1 1 3	Hinges Privacy Set Closer Kick Plate Mop Plate Floor Stop Coat Hook Door Silencers	CB191 4 1/2 X 4 1/2 45H-0LT14H TS9315 T K0050 10" x 34" B4E-HEAVY-KP CSK KM050 6" x 35" CSK 1211 3071-1 1229A	630W 626 689 630 630 630 630 GREY	ST BE DM TR TR TR TR TR

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SET #8 - Water Closet w/ Shower (Doors: 106-A)

3	Hinges	CB191 4 1/2 X 4 1/2	630W	ST
1	Dormitory Lock	45H-7TA14H PATD VIN	626	BE
1	Closer	TS9315 ST CS	689	DM
1	Kick Plate	K0050 10" x 34" B4E-HEAVY-KP CSK	630	TR
1	Mop Plate	KM050 6" x 35" CSK	630	TR
1	Roller Stop	1244	626	TR
1	Coat Hook	3071-1	630	TR
3	Door Silencers	1229A	GREY	TR
SET #9	- Janitor Closet (Doors: 106-B)			
3	Hinges	CB191 4 1/2 X 4 1/2	630W	ST
1	Passage Set	45H-0N14H	626	BE
1	Mop Plate	KM050 6" x 30" CSK	630	TR
1	Mop Plate	KM050 6" x 31" CSK	630	TR
3	Door Silencers	1229A	GREY	TR

SET #10 - Water Management Shed (Doors: 104-D, 104-I, 104-K)

1 Cylinder as Required 1E-74 PATD 626 BE

NOTE: Verify requirements - Specified cylinder is placeholder only

Opening List

Opening	Hdw Set	Opening Label	Door Type	Frame Type
100A	1	С		
101-A	7	В		
102-A	3	E		
104-A	2	В		
104-C	1	С		
104-D	10			
104-I	10			
104-K	10			
105-A	6	В		
106-A	8	В		
106-B	9	D		
108-A	4	С		
109-A	5	В		
110-A	3	E		