

**ADDENDUM NO. 2**

July 14, 2023

RE: **GS# 211-071**  
**Hayden Hall Renovations**  
Perkinston Campus  
Mississippi Gulf Coast Community College  
Perkinston, Mississippi  
A/E Project No. 22-050



FROM: Eley Guild Hardy Architects  
1091 Tommy Munro Drive  
Biloxi, MS 39532  
(228) 594-2323

TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated June 27, 2023. Acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject Bidder to disqualification.

**This Addendum consists of 2 pages and 40 pages of attachments.**

**GENERAL NOTES:**

This addendum adds Minutes from the Pre-Bid conference, adds comment responses, and **CHANGES THE DURATION OF THE PROJECT.**

**RFIs:**

**Q:** Section 064023 2.1.A.1: This specification section indicates that the Medium Density Fiberboard "MDF" be made with binder containing no urea formaldehyde. Due to availability/supply issue we can not obtain materials or pricing for any MDF products/materials or any other sheet goods with the "no urea formaldehyde" requirements. This has been an issue for some time and will continue to be an issue. Due to the continuing availability/supply issues we are requesting the formaldehyde-free requirements be waived/deleted.

**A:** The formaldehyde-free requirement will be waived. "Typical" MDF will be allowed. Particle board will NOT be allowed.

**Q:** Please specify the integral vanity sink that is required for the vanity tops (17,22/I401) that works with SSM-1 (Wilsonart Solid Surface: Antique White). We need the manufacturer, part number & color.

**A:** See addendum below for specification.

**Q:** The closets rods in the dorm rooms (2/I401) are specified (0640232.2.L) as a 1 1/2" diameter polished stainless steel closet rod. The standards for closet rods are chrome plated steel 1 1/16" diameter or 1 5/16" diameter. Is the standard 1 5/16" diameter chrome plated steel closet rod acceptable in lieu of the 1 1/2" diameter closet rod?

- A:** See addendum below for specification.
- Q.** Does the Owner or the Prime Contractor pay for materials testing and/or special inspections?  
**A.** Owner Pays for Code Required Special Inspections; Contractor pays for Material Testing.
- Q.** Will the Prime Contractor be responsible for paying for electrical and water usage during construction?  
**A.** The College will provide water and electrical for the project.
- Q.** What is the thickness of the sidewalk to be removed in the Base Bid and in Alternate #3?  
**A.** The sidewalk is 5" thick with turndown edges.

#### **CHANGES TO PROJECT MANUAL:**

1. **Section 00 4200 – Proposal Form:** Delete the Proposal Form in its entirety and replace with attached "00 4200R1 – Proposal Form" that has changed the duration by 30 days.
2. **Section 06 40 23 – Interior Architectural Woodwork:**
  - A. Paragraph 2.2.L: Add the following to the end of the first sentence, "1-5/16 diameter rod size is acceptable where length is under 4'."
  - B. Paragraph 2.2: Add the following subparagraph to the end, "P. Integral Sink Bowls: Basis of Design - Wilsonart Solid Surface Cast Sink, Oval Vanity Bowl AV1612, Clean White"
3. **Section 08 45 13 – Aluminum Framed Entrances & Storefronts:** Delete "HARDWARE SET: AL-01" at the end of Paragraph 3.7 and replace with Page "08 41 13-13" as attached in this addendum.
4. **Section 08 71 00 – Door Hardware:** Delete this section in its entirety and replace it with the attached Section, "08 71 00R1 – Door Hardware". Modify the Table of Contents accordingly.

#### **CHANGES TO DRAWINGS:**

1. **Sheet A400 Enlarged Lobby Plans:** Detail 3 Partition Types, Detail 6:
  - A. Change note from "1 LAYER 5/8" GYP BD" to "1 LAYER 5/8" TILE BACKER BOARD".
  - B. Change note from "1 LAYER 5/8" TILE BACKER BOARD" to "TILE".
2. **Sheet I600 Finish Schedule & Details:** Add the following lines to the Finish Key:  
**ACT-1 Acoustical Ceiling Tile      Armstrong Calla 2822      24x24x1"**

END OF ADDENDUM 2

**GS# 211-071 – Hayden Hall Renovation – Perkinston Campus  
Pre-Bid Conference Meeting Minutes**

Date: July 13<sup>th</sup>, 2023  
Time: 10:00 am  
Location: Hayden Hall, Perkinston Campus  
Project: GS# 211-071 Hayden Hall Renovation A/E Project No. 22-050

Architectural:

Eley Guild Hardy Architects  
Kyle Kish, AIA, LEED AP  
[kkish@egh.ms](mailto:kkish@egh.ms)  
Kaitlyn Breland  
[kbreland@egh.ms](mailto:kbreland@egh.ms)  
228.594.2323

Civil:

O’neal-Bond Engineering, Inc.  
Jacob Smith, PE  
[jacob@onealbondeng.com](mailto:jacob@onealbondeng.com)  
601.928.7390

Structural:

Simpkins & Costelli Consulting  
Madeline Costelli Pettry, PE  
[maddie@simpkins-costelli.com](mailto:maddie@simpkins-costelli.com)  
228.864.6289

Electrical:

WELCON Electrical Consultants  
Greg Wyrosdick, PE  
[greg@welconconsultants.com](mailto:greg@welconconsultants.com)  
228.822.8000

Mechanical:

Stephens Mechanical  
Lawrence Stephens, PE  
[les@stephensmecheng.com](mailto:les@stephensmecheng.com)  
228.207.3322

Commissioning Agent:

Singeri Consulting  
Ryan William, PA, CxA  
[rwilliams@sinergiconsulting.com](mailto:rwilliams@sinergiconsulting.com)  
601.668.8781

Agenda:

1. Introductions
2. Sign-In sheet and Bureau listed items attached.
3. Review of Bureau of Building Requirements - Ari Stamps
4. Bid Day: 2:00 P.M (14:00:00). Thursday, July 27, 2023.
  - a. Office of the Bureau of Building Grounds and Real Property Management\  
Online Bids Accepted via MAGIC
  - b. If using MAGIC, upload all information you can ahead of time, it will take longer then you think. There is space on the 14<sup>th</sup> floor to make phone calls for last minute bid numbers.
  - c. Bids to be Held for 45 Days

BILOXI OFFICE  
1091 Tommy Munro Drive  
Biloxi, MS 39532  
228.594.2323 P

JACKSON OFFICE  
329 East Capitol Street  
Jackson, MS 39201  
601.354.2572 P

5. Addenda:
  - a. There is currently 1 addendum already issued. Minutes of this meeting will be provided in the next addendum (Addendum #2) along with questions received.
6. Contractor/Subcontractor Question/Answer Period:
  - a. It is noted that questions will be received and answered on an official basis only. Binding answers to questions must be included in an official written addendum.
    - i. Contact Kyle Kish: [kkish@egh.ms](mailto:kkish@egh.ms)
  - b. Last addendum is **5:00 pm on Monday, July 24, 2023** – Please have all questions in by Monday morning the latest, if you want them responded to in the last Addendum.
7. Project Scope.
  - a. Demolition of Existing Conditions
  - b. Base Bid
    - i. Renovation of ±52,648 SF Hayden Hall (including balconies ,etc./ 25,689 SF Occupied).
      1. 100 dorm rooms, main lobby interior & courtyard.
      2. Suite Finishes
      3. Mechanical System (Insulation & Lobby Units)
      4. Lobby upgrades & addition of 2<sup>nd</sup> floor.
      5. Electrical Upgrades (Comm & fire Alarm)
      6. Exterior Improvements (Courtyards, Coatings, Gates, Painting)
      7. A Future addendum will address the USM Weather Station that will need to remain during the work.
      8. Comissioning will be required.
  - c. Alternate #1: Southwest side of the courtyard
    - i. ±3,500 SF of additional courtyard improvements
  - d. Alternate #2: All Upgrades to ±1,200 SF Apartment
    - i. All new finishes in the apartment.
  - e. Alternate #3: Dumpster Enclosures
    - i. Addition of two dumpster enclosures.
8. Schedule (all dates are subject to change):
  - a. Approved by Bureau: Early August (No PPRB approval required)
  - b. NTP: Beginning of September (Based on how fast the contractor can submit required data)
  - c. Work to be completed in ~~240 days (May 2024)~~ **270 days (June 2024) based on Addendum #2.**
9. Liquidated Damages: \$250 / day
10. Allowances:
  - a. Mech system controls (Base Bid): \$20,000
11. For additional access to campus after this meeting please contact:  
Lee Palermo, MGCCC College Architect  
[lee.palermo@mgccc.edu](mailto:lee.palermo@mgccc.edu)  
Cell: 228.341.2124
12. Site Review

Conference Walk-Through Ended @ 11:00 am



## SIGN IN SHEET AND AGENDA

### Bureau of Building, Grounds and Real Property Management

<b>DATE: 7/13/2023</b>			
<b>MEETING FOR:</b>	<b>GS: 211-071</b>	<b>PHASE: N/A</b>	<b>PROJECT NAME: Hayden Hall Renovations</b>
<b>REQUESTED BY:</b>	<input type="checkbox"/> <b>BoB</b>	<input type="checkbox"/> <b>Professional</b>	<input type="checkbox"/> <b>Using Agency</b>
<b>PURPOSE OF MEETING:</b>	<b>Pre-Bid Conference</b>		

NAME (Please Print)	COMPANY OR ORGANIZATION	WORK NO.	CELL NO.	EMAIL ADDRESS
Garry Stegall	BoB	601-359-3621	601-941-6066	Garry.stegall@dfa.ms.gov
Ari Stamps	BoB	601-359-3621	601-572-5666	ari.stamps@dfa.ms.gov
BOBBY GIBSON	BERNHARD	228-314-4539	SAME	bgibson@bernhard.com
CHRIS MINOR	Bernhard	504-421-1627	SAME	cmminor@bernhard.com
LAURIE BAUGHMAN	DRACE Const. Corp	228-244-000	228-265-0862	lbaughman@dracecorp.com
Wayne Jones	Smith painting	601-543-2800	same.	Wayne@smithpaintingcons.com
Richard Jones	Smith Painting & Co.	601-543-2033	601-543-2033	RRJ651@Comcast.net
Denny Freeman	cutting Edge	228-961-2649	---	denny@cuttingedgeus.com
Kay Brayton	" "	228-669-5572	---	kay@cuttingedgeus.com
Jeff Dixon Jr	Dixon Contracting	601 590 2068	601 215 4925	jeffdixonjr@dixoncontractingms.com
Wes Riley	ONE3 Electric	228-218-9002	same	Wes@one3electric.com
Tyler Quave	DNP Inc.	228-396-1440	228-282-4640	tquave@dnpinconstruction.com
Trey Trosclair	DNP Inc.	228-365-4697	---	trey.trosclair@hotmail.com
RANDY FLORIS	ECS	228-697-1347	-	rfloris@ECSLIMITED.COM
Devin Spear	Balius Surfaces	601-807-8856		devin@baliussurfaces.com
Kevin McDermitt	ALADDIN	228-392-4497	228-297-1459	kevin@ALADD.COM.COM
BRAD WALL	BALIUS SURFACES	228-762-8809	228-806-4759	brad@baliussurfaces.com
Tony Moran	Stephens mech		228-860-8764	tony@Stephensmecheng.com
BOBBY CARSON	WELCON		228-806-5663	Bobby@welconconsultants.com



# PRE-BID CONFERENCE for

GS# 211 - 071

STEM Facility,

Hayden Hall Renovation, Perkinson Campus

DATE: Thursday, July 13, 2023

TIME: 10:00 AM

1. The bid opening is on: Thursday, July 27, 2023, 2:00 PM  
In the Bureau of Building's Conference Room on the 14<sup>th</sup> Floor  
GS# on the Envelope
2. Parking & Security – please allow time for parking and check-in with building security.  
Be mindful on whether the legislature *is/is not* in session
3. there will not be Telephone or desk provided to the bidders
4. Bids are taken; until 2:00:00 PM (14:00:00) on the Bid Date. **The official time clock is located at the Receptionist Desk on the 14<sup>th</sup> Floor**
5. **Certificates of Responsibility. Or COR#. Please ensure that your company information is current and up to date, at the time of bid and throughout the length of the job. Bids over \$50,000, must show a COR# number on the bid and on the face of the envelope containing the bid information**
6. Business Name must be exact, as listed, with the MS Secretary of State's Office
7. In the proposal form, the written bid amounts supersede the numeric amounts
8. If you provide the Certified Checks, it will be held; until the bid is award
9. on the bid form, Make sure to acknowledge all addendum on bid documents
10. If applicable, provide Mechanical/Plumbing/Electrical Subcontractors information
11. Bidder has 24 hours to notify the Bureau regarding any mistakes with the Bid
12. All Bid Protests must be submitted to the Bureau within 24 hours
13. The bidder must hold the price for **45** days; as per specifications
14. Notice to proceed will occur approximately 4 to 5 weeks after bid award
15. Out of State Contractors must submit reciprocating construction law for their resident State
16. the Bureau is the Owner and the Contract will be between the Bureau and the Contractor.
17. If bid; is sent by UPS/ FEDX or USPS, it is the Bidders responsibility to make sure it is delivered and stamped in before 2:00:00 PM on the bid date

18. Bids that contain Landscaping and/or Pesticide Controls must complete the Mississippi Department of Agriculture & Commerce – Bureau of Plant Industry Section on the Proposal Form.
19. Electronic bid(s); are accepted for all Bureau projects. To submit an electronic bid; you must be registered in MAGIC. To ensure you can submit a bid electronically you must register prior to bid date; (the registration is required only one time).

If you register, you will start receiving auto notifications for the Bureau projects. This does not apply to reverse auction.

The Bureau of Building Memorandum form for electronic bid is available for use from the Architect

These are only partial information. The Bureau strongly recommends that all bidders read all the instructions. If you have any questions, please direct them to the architect.





STATE OF MISSISSIPPI  
GOVERNOR PHIL BRYANT

DEPARTMENT OF FINANCE AND ADMINISTRATION

Laura D. Jackson  
EXECUTIVE DIRECTOR

MEMORANDUM

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**TO:** Contractors, through the AGC, ABC, and MBOC

**FROM:** Calvin R. Sibley, Director  
Bureau of Building, Grounds and Real Property Management

**DATE:** February 27, 2018

**SUBJECT:** Electronic Construction Bidding per Law effective 1/1/2018

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Beginning January of 2018, the Mississippi Department of Finance and Administration / Bureau of Building Grounds and Real Property Management started receiving construction bids electronically as required by House Bill 1106, Laws of 2017. Electronic bids are at the discretion of the Bidder/Supplier. Paper bids WILL STILL BE received as stipulated in the Advertisement / Request for Bids. The instrument being used to carry out this is a program called MAGIC which is available to all State of Mississippi departments, agencies, and Bidders/Suppliers. (MAGIC is the State's Accounting System.)

**TO BID USING MAGIC:** Potential Bidder/Supplier must first register. When the Bidder/Supplier registers themselves, they will automatically receive their Magic sign-in information. (The Bureau of Building, et al, can assist with this, and, if so, will notify the Bidder/Supplier by email of doing so, so they can contact Magic to get their sign-in information for bidding electronically.) Construction Bidders/Suppliers who have received awards in recent years through the Bureau of Building, et al, should already have their company information properly entered. Those companies should still verify that their system "Product Code" is set to "90922" [for construction] in order to receive "system generated Bid Notices" for construction projects. (Bid Opportunities will continue to be in the newspaper, on the Magic Portal, and on the Bureau of Building, et al, web.) When registering, a company should enter their company information EXACTLY as shown per the Mississippi Secretary of State's listing and per their W9. Contact Magic at:  
<http://uperform.magic.ms.gov/gm/folder-1.11.7512?originalContext=1.11.8507> (MS SoS, MBOC, and W9 should all agree.)

**TO ADD THE PRODUCT CODE 90922** once in your MAGIC Address Table click the steps below:

1. Click on Suppliers Self Service Tab.
2. Click Company Data.
3. Click the Process Button.
4. Click Add Categories in the Product Categories section
5. Add the product Categories from here.

**Page Two**

**TO VIEW ADVERTISED PROJECT INFORMATION** on line go to DFA Web site and select “Are You Interested in Doing Business with Mississippi” at the top of the page. This takes one to the Procurement Portal. Click on:

1. I sell to Mississippi
2. (RFx) Procurement Opportunities and Public Notifications
3. Advanced Search Options
4. Major Procurement Category: Select Construction
5. Dept/Agency: Select MS DEPT FINANCE AND ADMINISTRATION
6. SEARCH

Another option from the DFA web site is to:

1. Select DFA Offices
2. Select Bureau of Building Grounds and Real Property Management.
3. Just Below “About the Bureau of Building” select BOB Bid Solicitations.
4. Locate the GS# at left of the list and the RFx number at the right.

On both list the RFx number for each project is listed which is required in MAGIC when preparing bids.

For additional information regarding registration in MAGIC, contact MMRS at (601) 359-1343 or by email at [mash@dfa.ms.gov](mailto:mash@dfa.ms.gov) .

CRS/pgw

**PROPOSAL FORM**  
**SECTION 00 4200 R1**

To: Bureau of Building, Grounds and Real Property Management  
501 North West Street, Suite 1401B [Woolfolk Building]  
Jackson, Mississippi 39201

Re: Project # GS# 211-071  
Project Title Hayden Hall Renovation  
Location Mississippi Gulf Coast Community College

I propose to complete all work in accordance with the Project Manual and Drawings within 270 consecutive calendar days for the sum of: (Professional must specify number of days)

**BASE BID:** (Write in the amount of the base bid in words and numbers. In case of conflict, the written word governs.)

Words: \_\_\_\_\_ Dollars  
Figures: (\$\_\_\_\_\_)

**ALTERNATES:** (Write in the amount of all of the alternates in words and numbers. In case of conflict, the written word governs.)

**Alternate #1**  Adds  Deducts

Words: \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

Description: All upgrades to Courtyard Area

**Alternate #2**  Adds  Deducts

Words: \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

Description: All upgrades to Apartment Area

**Alternate #3**  Adds  Deducts

Words: \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

Description: All work related to Dumpster Enclosures

**Alternate #4**  Adds  Deducts

Words: \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

Description: \_\_\_\_\_

**Alternate #5**  Adds  Deducts

Words: \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

Description: \_\_\_\_\_

**Division 0**

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**ADDENDA ACKNOWLEDGMENT:**

No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_  
No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_

**ACCEPTANCE:**

I certify that I am authorized to enter into a binding contract, if this Proposal is accepted.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Name and Title \_\_\_\_\_  
Name of Business \_\_\_\_\_  
Address \_\_\_\_\_ (mailing)  
Address \_\_\_\_\_ (physical)  
City/State/Zip Code \_\_\_\_\_ County \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

- **BIDDER'S CERTIFICATE OF RESPONSIBILITY NUMBER:** \_\_\_\_\_
- **MINORITY BUSINESS ENTERPRISE? (MBE/WBE) Yes** \_\_\_\_ **No** \_\_\_\_ (to assist with Code 57-1-57)

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- Attach copy of Non-Resident Bidder's Preference Law

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■ **Mechanical / Plumbing / Electrical Contractors:**

Regarding said Divisions of the Specifications of the BoB Standard Form of Agreement Between The Owner and The Contractor:

List any Mechanical/Plumbing and/or Electrical Sub-Contractors that will perform work of this contract, regardless of cost even for under \$50,000.00. COR must be included where sub-contract exceeds \$50,000.00. If no sub-contractor is listed, and such work is within scope of contract and over \$50,000.00, bidder's own COR classification(s) must be sufficient to self-perform any such work. If no sub-contractor is listed, then use of sub-contractor to perform such scope will not be permitted.

Mechanical Contractor: \_\_\_\_\_ Certificate of Responsibility No. \_\_\_\_\_  
Plumbing Contractor: \_\_\_\_\_ Certificate of Responsibility No. \_\_\_\_\_  
Electrical Contractor: \_\_\_\_\_ Certificate of Responsibility No. \_\_\_\_\_

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**Division 0**

**HARDWARE SET: AL-01**

Description: NEW EXTERIOR DOUBLE ALUM DOOR / FRAME (REMOVABLE MULLION)

Doors: 153A, 153B

2 Continuous Hinge	KCFM95-HD1		PE
1 Removable (keyed) Mullion	CRWS707AKM x Length Required		RU
2 Exit Device (rim, nightlatch)	ED5200S PR957ET M107 M109 M52 M54 CT7SD		
		630C	RU
2 Surface Closer	DC8210 A11 M77	689	RU
2 Drop Plate	754F25 (if required)	689	RU
1 Threshold	2005AT x Length Required		PE

Notes: Perimeter and meeting stile weather seals to be provided by door manufacturer.  
 Confirm with the specific aluminum storefront door manufacturer the hardware requirements to meet specified impact resistance.  
 Exit device can be dogged down for push / pull operation.

**HARDWARE SET: AL-02**

Description: NEW EXTERIOR ALUM DOOR / FRAME

Doors: 153D

1 Continuous Hinge	KCFM95-HD1		PE
1 Exit Device (rim, nightlatch)	ED5200S PR957ET M107 M109 M52 M54 CT7SD		
		630C	RU
1 Surface Closer	DC8210 A11 M77	689	RU
1 Drop Plate	754F25 (if required)	689	RU
1 Threshold	2005AT x Length Required		PE

Notes: Perimeter and meeting stile weather seals to be provided by door manufacturer.  
 Confirm with the specific aluminum storefront door manufacturer the hardware requirements to meet specified impact resistance.  
 Exit device can be dogged down for push / pull operation.

**HARDWARE SET: AL-03**

Description: NEW INTERIOR ALUM DOOR / FRAME

Doors: 153C, 257A

1 Continuous Hinge	KCFM95-HD1		PE
1 Deadlock, Double Cylinder	MS-1850		AR
1 Offset Pull (1-1/4", 12"CTC)	RM201	US32D	RO
1 Push Bar (1-1/4")	RM350	US32D	RO
1 Surface Closer	DC8210 A11 M77	689	RU
1 Drop Plate	754F25 (if required)	689	RU

Notes: Perimeter stile seals to be provided by door manufacturer.

END OF SECTION

## SECTION 08 71 00R1 – DOOR HARDWARE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes commercial door hardware for the following:
1. Swinging doors.
  2. Keyed cylinders as 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 include the following:
1. Division 08 Section "Door Hardware Schedule".
  2. Division 08 Section "Hollow Metal Doors and Frames".
  3. Division 08 Section "Flush Wood Doors".
  4. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- D. The following items describe the responsibility of each party (Electrical Contractor, Aluminum Framing Contractor, or Door Hardware Contractor):
1. Furnish/Installation of all Raceways (conduit) to each power supply and from power supply to each access control device (hinge, card reader, etc): Division 26 (Electrical) Contractor
  2. Furnish power supply/controller: Door Hardware Contractor
  3. Furnish/Installation of composite (banana) cable from power supply back to Master Control Cabinet: Division 26/28 (Electrical) Contractor.
  4. Furnish/Installation of low voltage cabling from power supply/controller to each local device: Door Hardware Contractor
  5. Furnish/Installation of electrified hardware: Door Hardware Contractor
- E. 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.

F. 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

## 1.2 SUBMITTALS

A. Special Submittal Requirements: Combine submittals of this Section with other related Sections to ensure the "design intent" of the system/assembly is understood and can be reviewed together.

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

C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- 1.3 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.



1. All installers shall be full time employees of the supplier (or subcontractors of the supplier) of the hardware and trained and approved by lock manufacturer. Installer shall have minimum 3 years' experience in installation of similar hardware that is required for this Project.
  2. **The General Contractor or other subcontractors may not install hardware. If any hardware is installed, it will be considered non-conforming.**
- 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. Integrated Wiegand, Wireless, and IP-Enabled Access Control Products Supplier Qualifications: Integrated access control products and accessories are required to be supplied and installed through current members of the ASSA ABLOY "Authorized Channel Partner" (ACP) and "Certified Integrator" (CI) programs (or other manufacturer's program if using different hardware). Suppliers are to be factory trained, certified prior to project bid, and a direct purchaser of the specified product. Installers are to be factory trained, certified prior to project bid, and are responsible for commissioning, servicing, and warranting the installed equipment specified for the project.
- E. 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.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. 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.
- H. Pre-Installation Conference: Conduct coordination conference in compliance with requirements in Division 1 Sections 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
- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.
- J. Comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1 as follows:
1. Handles, Pulls, Latches, Locks, and other Operating Devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
  2. Door Closers: Comply with the following maximum opening-force requirements indicated:
    - a. Interior Hinged Doors: 5 lbf applied perpendicular to door.
  3. Thresholds: Not more than 1/2 inch high. Bevel raised thresholds with a slope of not more than 1:2.
- K. Intent of Hardware Schedule:
1. 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 at no cost to the Owner.
  2. 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.

#### 1.4 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".

## 1.5 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.

## 1.6 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. Ten years for motorized electric latch retraction exit devices.

## 1.7 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.
- B. Furnish maintenance service for a period of **12 months from date of Substantial Completion** during normal working hours at no cost to the Owner. Service shall consist of examination of the equipment, adjustment, lubrication, supplies and parts to keep the doors and hardware in proper operation. 1 month prior to expiration of maintenance agreement during warranty "walk-thru", survey all doors and hardware and perform any adjustments if necessary.

## 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.

### 2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.
  - 1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
    - a. Two Hinges: For doors with heights up to 60 inches.
    - b. Three Hinges: For doors with heights 61 to 90 inches.
    - c. Four Hinges: For doors with heights 91 to 120 inches.
    - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
  - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
    - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
    - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
  - 3. Hinge Options: Comply with the following:
    - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
  - 4. Acceptable Manufacturers:
    - a. Hager Companies (HA).

- b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
  - c. Stanley Hardware (ST).
- B. 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. Acceptable Manufacturers:
    - a. Hager Companies (HA).
    - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
    - c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

## 2.3 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. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - 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. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
    - c. Trimco (TC).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
  - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
  - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.

4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
5. Acceptable Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
  - c. Trimco (TC).

## 2.4 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: Match Mississippi Gulf Coast Community College Standard.
    - a. All mechanical, electrical, and service room locks shall be keyed to the HSH 2 KEY "A" keyway. All other locks shall be on an "M" keyway.
- D. Permanent Cores: Manufacturer's standard; finish face to match lockset; complying with the following:
  1. Interchangeable Cores: Core insert, removable by use of a special key; usable with other manufacturers' cylinders.
- 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. Existing System: Key locks to Owner's existing system.
- 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): Thirty (30).
  4. Construction Control Keys (where required): Two (2).
  5. Permanent Control Keys (where required): Two (2).
- G. Construction Keying: Provide temporary keyed construction cores at all exterior doors, and a minimum of 30 interior doors.

- 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.
- I. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
  - 1. Acceptable Manufacturers:
    - a. Lund Equipment (LU).
    - b. MMF Industries (MM).
    - c. Telkee (TK).

## 2.5 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. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 10 million cycles.
  - 2. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) – ML2000 Series.
    - b. Sargent Manufacturing (SA) – 8200 Series.

## 2.6 AUXILIARY LOCKS

- A. Narrow Case Deadlocks and Deadlatches: ANSI/BHMA 156.13 Series 1000 Grade 1 certified narrow case deadlocks and deadlatches for swinging or sliding door applications. All functions shall be manufactured in a single sized case formed from 12 gauge minimum, corrosion resistant steel (option for fully stainless steel case and components). Provide minimum 2 7/8" throw laminated stainless steel bolt. Bottom rail deadlocks to have 3/8" diameter bolts.
  - 1. Acceptable Manufacturers:
    - a. Adams Rite Manufacturing (AD) - MS1850S / MS1950 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 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 cylinder key dogging device to hold the pushbar and latch in a retracted position.
  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. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
  6. 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.
  7. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
  8. 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.
  9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
  10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Security Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified rim panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be constructed of high grade, heat treated, corrosion resistant nickel steel alloy, and have a full 3/4" throw projection with slide action positive deadlocking.
1. Static Load Force Resistance: Minimum 3000 lbs certified independent tested.
  2. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) - ED4000S / ED5000S Series.



- C. Extruded Aluminum Removable Mullions: ANSI/BHMA A156.3 anodized, removable mullions with malleable-iron top and bottom retainers. Mullions to be provided standard with stabilizers and imbedded weatherstrip.
  - 1. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) – 808 Series.
    - b. Sargent Manufacturing (SA) - 650A Series.
  
- D. 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. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) - 700/900 Series.
    - b. Sargent Manufacturing (SA) - 980S Series.

## 2.9 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 (Large Body Cast Iron): 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 body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.
  - 1. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) - DC8000 Series.
    - b. Norton Door Controls (NO) – 9500 Series.
    - c. Sargent Manufacturing (SA) - 281 Series.

## 2.10 ARCHITECTURAL TRIM

### A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
  - a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Acceptable Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
  - c. Trimco (TC).

## 2.11 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. Acceptable 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. Acceptable Manufacturers:
    - a. Rixson Door Controls (RF).
    - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
    - c. Sargent Manufacturing (SA).

## 2.12 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. Acceptable Manufacturers:
  - 1. National Guard Products (NG).
  - 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
  - 3. Zero (ZE).

## 2.13 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.

## 2.14 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. **No installation shall occur on any steel surfaces (frames, doors) until ALL surfaces are primed and painted per Division 9 Section "Painting and Coating". Coordinate to ensure steel doors are primed and painted prior to hanging.**
- B. 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.
- C. 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.
- D. 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.

- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. 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. Manufacturer's 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.
- B. Door Hardware Supplier's Field Service:
  - 1. Inspect door hardware items for correct installation and adjustment after complete installation of door hardware (prior to final manufacturer's inspection) and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.
  - 2. File written report of this inspection to Architect.

### 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.
1. Quantities listed are for each pair of doors, or for each single door.
  2. The supplier is responsible for handing and sizing all products.
  3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
  4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Manufacturer's Abbreviations:

1. MK – McKinney
2. PE – Pemko
3. RO – Rockwood
4. RU – Corbin Russwin
5. AR – Adams Rite
6. BE – Dormakaba Best
7. DE – Detex Corporation
8. TR – Transact (thru MGCCC)

## Hardware Sets

### Set 1.0

Description: EXISTING EXTERIOR GHM DOOR/FRAME

Doors: 101A, 102A, 103A, 104A, 105A, 106A, 107A, 108A, 109A, 110A, 111A, 112A, 113A, 114A, 115A, 116A, 117A, 118A, 119A, 120A, 121A, 122A, 123A, 124A, 125A, 126A, 127A, 128A, 129A, 130A, 131A, 132A, 133A, 134A, 135A, 136A, 137A, 138A, 139A, 140A, 141A, 142A, 143A, 144A, 145A, 146A, 147A, 148A, 149A, 149B, 150A, 151A, 201A, 202A, 203A, 204A, 205A, 206A, 207A, 208A, 209A, 210A, 211A, 212A, 213A, 214A, 215A, 216A, 217A, 218A, 219A, 220A, 221A, 222A, 223A, 224A, 225A, 226A, 227A, 228A, 229A, 230A, 231A, 232A, 233A, 234A, 235A, 236A, 237A, 238A, 239A, 240A, 241A, 242A, 243A, 244A, 245A, 246A, 247A, 248A, 249A, 250A, 251A, 252A

1 Gasketing	303CSTST x head and jambs	PE
1 Sweep	315CN TKSP x door width	PE
1 Threshold	171A x door width	PE

Notes: -All other hardware to remain.  
-Existing door and frame – verify new hardware will work with existing hardware preps.

### Set 2.0

Description: NEW INTERIOR WOOD DOOR / EXISTING HM FRAME

Doors: 101B, 102B, 103B, 104B, 105B, 106B, 107B, 108B, 109B, 110B, 111B, 112B, 113B, 114B, 115B, 116B, 117B, 118B, 119B, 120B, 121B, 122B, 123B, 124B, 125B, 126B, 127B, 128B, 129B, 130B, 131B, 132B, 133B, 134B, 135B, 136B, 137B, 138B, 139B, 140B, 141B, 142B, 143B, 144B, 145B, 146B, 147B, 148B, 201B, 202B, 203B, 204B, 205B, 206B, 207B, 208B, 209B, 210B, 211B, 212B, 213B, 214B, 215B, 216B, 217B, 218B, 219B, 220B, 221B, 222B, 223B, 224B, 225B, 226B, 227B, 228B, 229B, 230B, 231B, 232B, 233B, 234B, 235B, 236B, 237B, 238B, 239B, 240B, 241B, 242B, 243B, 244B, 245B, 246B, 247B, 248B, 249B, 250B, 251B, 252B

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Apartment Function Lock	CLX3372 PZD CT7SD	626C	RU
2 Interchangeable Core			BE
1 Overhead Stop	10-336	689	RF
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" x 1" LDW 4BE CSK	US32D	RO
3 Silencer	608-RKW		RO

Notes: -Existing frame - verify new hardware will work with existing hardware preps.

**Set 3.0**

Description: NEW EXTERIOR GHM DOOR / EXISTING HM FRAME (MECH)

Doors: 152A, 255A

3 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Storage Function Lock	CLX3357 PZD CT7SD	626C	RU
1 Interchangeable Core			BE
1 Surface Closer	DC8200 A10 M54	689	RU
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Threshold	2005AT x door width		PE
1 Gasketing	303CSTST x head and jambs		PE
1 Sweep	315CN TKSP x door width		PE

Notes: -Existing frame - verify new hardware will work with existing hardware preps.

**Set 4.0**

Description: NEW EXTERIOR GHM DOOR / EXISTING HM FRAME (OUTSWING STORAGE)

Doors: 256A

3 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Storage Function Lock	CLX3357 PZD CT7SD	626C	RU
1 Interchangeable Core			BE
1 Overhead Stop	10-336	689	RF
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Threshold	2005AT x door width		PE
1 Gasketing	303CSTST x head and jambs		PE
1 Sweep	315CN TKSP x door width		PE

Notes: -Existing frame - verify new hardware will work with existing hardware preps.

**Set 5.0**

Description: NEW EXTERIOR GHM DOOR / EXISTING HM FRAME (IN SWING STORAGE)

Doors: 253A, 254A, 256A

3 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Storage Function Lock	CLX3357 PZD CT7SD	626C	RU
1 Interchangeable Core			BE
1 Wall Stop	409	US32D	RO
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Threshold	2005AT x door width		PE
1 Gasketing	303CSTST x head and jambs		PE
1 Sweep	315CN TKSP x door width		PE

Notes: -Existing frame - verify new hardware will work with existing hardware preps.



**Set 6.0**

Description: NEW EXTERIOR DOUBLE GHM DOOR / EXISTING HM FRAME (MECH)

Doors: 157A

6 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Storeroom Lock (Mortise)	ML2057 PSB CT7SD	630C	RU
2 Interchangeable Core			BE
2 Manual Flush Bolt	557	US26D	RO
1 Dust Proof Strike	570	US26D	RO
1 Surface Closer	DC8200 A10 M54	689	RU
1 Overhead Stop	10-336	689	RF
1 Astragal	357SP x Door Height		PE
1 Gasketing	303CSTST x head and jambs		PE
2 Sweep	315CN TKSP x door width		PE
1 Threshold	2005AT x door width		PE

Notes: Existing frame - verify new hardware will work with existing hardware preps.

**Set 7.0**

Description: NEW INTERIOR WOOD DOOR / EXISTING HM FRAME (OFFICE)

Doors: 154A, 154B

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Entry Function Lock	CLX3361 PZD CT7SD	626C	RU
1 Interchangeable Core			BE
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" x 1" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO
3 Gasketing	S88D 17' TKSP		RO

Notes: -Existing frame - verify new hardware will work with existing hardware preps.

**Set 8.0**

Description: NEW INTERIOR WOOD DOOR / NEW HM FRAME (TOILET)

Doors: 155A

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Privacy Function Lock (Mortise)	ML2060 PSB M19V	626	RU
1 Surface Closer	DC8200 A10 M54	689	RU
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" x 1" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO
3 Gasketing	S88D 17' TKSP		RO

**Set 9.0**

Description: NEW INTERIOR WOOD DOOR / NEW HM FRAME (STORAGE)

Doors: 156A

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Storage Function Lock (Mortise)	ML2057 PSB M19V	626	RU
1 Interchangeable Core			BE
1 Surface Closer	DC8200 A10 M54	689	RU
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" x 1" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO

**Set 10.0**

Description: NEW EXTERIOR DOUBLE ALUM DOOR / FRAME (REMOVABLE MULLION)

Doors: 153A, 153B

4 Interchangeable Core			BE
2 Floor Stop (heavy duty)	462	US2C	RO

- Notes:
- Remainder of hardware to be provided by Division 8 Section "Aluminum-Framed Entrances and Storefronts". Coordinate rough-in, prep, and installation of all hardware with this Section.
  - Provide necessary housings, collars/rings, cams and tailpieces/spindles for all cores/cylinders.
  - Provide blocking/spacer rings in thickness as required to fill gap, if any, between cylinder head and face of door.

**Set 11.0**

Description: NEW EXTERIOR ALUM DOOR / FRAME

Doors: 153D

2 Interchangeable Core			BE
1 Floor Stop (heavy duty)	462	US2C	RO

- Notes:
- Remainder of hardware to be provided by Division 8 Section "Aluminum-Framed Entrances and Storefronts". Coordinate rough-in, prep, and installation of all hardware with this Section.
  - Provide necessary housings, collars/rings, cams and tailpieces/spindles for all cores/cylinders.
  - Provide blocking/spacer rings in thickness as required to fill gap, if any, between cylinder head and face of door.

**Set 12.0**

Description: NEW INTERIOR ALUM DOOR / FRAME

Doors: 153C, 257A

2 Interchangeable Core				BE
1 Floor Stop (heavy duty)	462		US2C	RO

Notes: -Remainder of hardware to be provided by Division 8 Section "Aluminum-Framed Entrances and Storefronts". Coordinate rough-in, prep, and installation of all hardware with this Section.  
 -Provide necessary housings, collars/rings, cams and tailpieces/spindles for all cores/cylinders.  
 -Provide blocking/spacer rings in thickness as required to fill gap, if any, between cylinder head and face of door.

**Set: 13.0**

Description: NEW EXTERIOR FRP DOOR / STEEL FRAME (ACCESS CONTROL)

Doors: G100A, G102A, G106A, G109A

1 Rim Exit Device (electrified)	10xW 03C ER-EX-W CD IC7R EC2 FC10W			
		630		DE
1 Controller	81-800			DE
1 Surface Closer	DC8200 A10 M54	689		RU
1 Floor Stop (heavy duty)	462		US2C	RO
1 Card Reader	DR5000			TR

Notes: -Operation; Gate is normally closed & secure. Presenting a valid credential to the card reader temporarily retracts the exit device latch, permitting entry. Gate relocks upon closing. Access by key override at all times. Request to exit switch (REX) in the exit allows authorized egress at all times. Exit latch to remain projected/locked (fail secure) if power fails, Push rail always permits egress.  
 -Remainder of hardware to be provided by Division 8 Section "FRP – Aluminum Hybrid Doors". Coordinate electrical rough-in, prep, and installation of all hardware with this Section.  
 -Video Doorbell system per Division 28 Section "IP Network Compatible Intercom/Doorbell (IX System)"

**Set: 14.0**

Description: NEW EXTERIOR FRP DOOR / STEEL FRAME

Doors: G106B

1 Rim Exit Device	10 03C CD IC7R EC2	630		DE
1 Surface Closer	DC8200 A10 M54	689		RU
1 Floor Stop (heavy duty)	462		US2C	RO

Notes: -Remainder of hardware to be provided by Division 8 Section "FRP – Aluminum Hybrid Doors". Coordinate rough-in, prep, and installation of all hardware with this Section.

**Set: 15.0**

Description: NEW EXTERIOR FRP GATE / STEEL FRAME

Doors: G102B

Provide 316 stainless steel heavy duty hinges, cane bolt, and padlock keeper

Notes: -Remainder of hardware to be provided by Division 8 Section "FRP – Aluminum Hybrid Doors".

**Set: 16.0**

Description: CEILING ACCESS PANELS

Doors: n/a

1 Interchangeable Core BE

Notes: -Provide at each ceiling access panel  
-Remainder of hardware to be provided by Division 8 Section "Access Doors and Panels"  
-Provide necessary housings, collars/rings, cams and tailpieces/spindles for all cores/cylinders.  
-Provide blocking/spacer rings in thickness as required to fill gap, if any, between cylinder head and face of panel.

**Set: 17.0**

Description: PADLOCKS

Doors: n/a

5 Padlocks PL5280 RU  
5 Interchangeable Core BE

**Provide the following Hardware Sets under Alternate only:**

**Set 18.0**

Description: NEW EXTERIOR GHM DOOR / FRAME (APARTMENT ENTRY)

Doors: 158A

3 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Entry Function Lock (Mortise)	ML2054 PSB CT7SD	626C	RU
1 Interchangeable Core			BE
1 Surface Closer	DC8200 A10 M54	689	RU
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Threshold	2005AT x door width		PE
1 Gasketing	303CSTST x head and jambs		PE
1 Sweep	315CN TKSP x door width		PE
1 Rain Guard	346C x Width of Frame Head		PE
2 Door Viewer	1756	US26D	HG

Notes: -Mount 1 door viewer high and 1 low (ADA height)  
-Provide under Alternate only

**Set 19.0**

Description: NEW EXTERIOR GHM DOOR / EXISTING HM FRAME (APARTMENT KITCHEN)  
Doors: 159A

3 Hinge (heavy weight)	T4A3386 4-1/2" x 4-1/2"	US32D	MK
1 Entry Function Lock (Mortise)	ML2054 PSB CT7SD	626C	RU
1 Interchangeable Core			BE
1 Surface Closer	DC8200 A10 M54	689	RU
1 Kick Plate	K1050 8" x 2" LDW 4BE CSK	US32D	RO
1 Threshold	2005AT x door width		PE
1 Gasketing	303CSTST x head and jambs		PE
1 Sweep	315CN TKSP x door width		PE
1 Rain Guard	346C x Width of Frame Head		PE

Notes: -Existing frame - verify new hardware will work with existing hardware preps.  
-Provide under Alternate only

**Set 20.0**

Description: NEW INTERIOR WD DOOR / EXISTING HM FRAME (APARTMENT BED / BATH)  
Doors: 160A, 161A, 162A, 164A

3 Hinge	TA2714 4-1/2" x 4-1/2"	US26D	MK
1 Privacy Function Lock	CLX3320 PZD	626C	RU
1 Mop Plate	K1050 4" x 1" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO
3 Silencers	608-RKW	RB	HG

Notes: -Existing frame - verify new hardware will work with existing hardware preps.  
-Provide under Alternate only

**Set 21.0**

Description: NEW INTERIOR WD DOOR / EXISTING HM FRAME (APARTMENT BIFOLD)  
Doors: 160.1A, 161.1A, 162.1A

3 Bi-Folding System	HF2/100A/3		PE
1 Door Pull (5" CTC)	Y 105 Mtg-Type 1	US32D	RO

Notes: -Existing frame - verify new hardware will work with existing hardware preps.  
-Provide under Alternate only

END OF SECTION

END OF SECTION

## SECTION 09 51 13 – ACOUSTICAL PANEL CEILINGS

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. Extent of each type of acoustical ceiling is shown and scheduled on drawings.
- B. Types of acoustical ceilings specified in this section include the following:
  - 1. Acoustical panel ceilings, exposed suspension.
- C. Related Sections include the following:
  - 1. Division 9 Section “Gypsum Board” for gypsum board ceilings

#### 1.2 SUBMITTALS

- A. Product Data: Manufacturer’s product specifications and installation instructions for materials and suspension system, including certified laboratory test reports and other data as required showing compliance with these specifications.
- B. Samples: Set of samples for acoustical unit, showing full range of exposed color and texture, and set of 8” long samples of suspension system.
- C. Installation Instructions: Submit manufacturer's installation instructions.

#### 1.3 QUALITY ASSURANCE

- A. Installer: Firm with not less than three years of successful experience in installation of acoustical ceilings similar to requirements for this project and which is acceptable to manufacturer of acoustical units.
- B. Single-Source Responsibility: Provide all ceiling panel units and grid components by a single manufacturer.
- C. Coordination of Work: Coordinate ceiling work with installers of related work including, but not limited to building insulation, wet work i.e. gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical ceiling units to project site in original unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination or other causes.
- B. Handle acoustical ceiling units carefully to avoid chipping edges or damaging units in any way. Minor damages may be repaired, provide finish items are equal in all respects to new work and acceptable to Architect; otherwise, remove and replace damaged items as directed.

## 1.5 PROJECT CONDITIONS

- A. Space enclosure - Do not install interior acoustical ceilings until space is **enclosed and weather-proof**, until wet work in space is completed and nominally dry, until work above ceilings is completed, and until ambient conditions of temperature and humidity will be continuously maintained at values near those indicated for final occupancy (between 50 degrees F and 86 degrees F; relative humidity should not fall below 25 percent or exceed 55 percent.)
  - 1. Gridwork is acceptable to be installed, however, no tile is to be installed until the above conditions are met.
- B. Before installing acoustical ceiling units, permit them to reach room temperature and stabilized moisture content.

## 1.6 WARRANTY

- A. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following:
  - 1. Acoustical Panels: Sagging and warping
  - 2. Grid System: Rusting and manufacturer's defects
- B. Warranty Period:
  - 1. Acoustical panels: minimum ten (30) years from date of substantial completion.
  - 2. Grid: minimum ten (10) years from date of substantial completion.

## 1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Acoustical Ceiling Units: Full size tiles in sealed boxes – furnish in the following quantities:
    - a. All types: 2 cartons
  - 2. Exposed Suspension System Components: Furnish quantity of each exposed suspension component system equal to 1.0 percent of quantity installed.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURERS

- A. [Armstrong World Industries \(basis of design\)](#)
- B. [USG Corporation](#)
- C. [CertainTeed Ceilings](#)
- D. Or equal

### 2.2 ACOUSTICAL PANELS

- A. General: Where units less than 6 inches wide would occur at edges of room with 24 X 24 inch pattern, provide 24 X 48 inch panels cut to extend to wall, eliminating the tee near the wall.
- B. Type 1 (ACT1), 15/16", square tegular edge:
  - 1. NRC – 0.85; CAC – 35; AC – 170
    - a. 2' x 2' x 1" [Calla \(2822\)](#) by Armstrong.
    - b. Or equal

### 2.3 CEILING SUSPENSION MATERIALS

- A. General: Comply with ASTM C635, as applicable to type of suspension system required for type of ceiling units indicated. Coordinate with other work supported by or penetrating through ceilings, including light fixtures and HVAC equipment.
  - 1. Structural Class: Intermediate-duty.
- B. Attachment Devices: Size for 5 times design load indicated in ASTM C635, Table 1 Direct Hung. Hanger Wires-galvanized carbon steel, ASTM A641, soft temper, prestretched, yield-stress load of at least 3 times design load, but not less than 12 gage (0.106").
- C. Edge Molding: provide manufacturer's standard wall angle (7/8" hemmed angle molding – depending on grid) for edges of ceiling of material and finish to match exposed tee flanges in same space.
- D. Exposed Suspension System: Manufacturer's standard exposed tees, cross tees and accessories of types indicated, with exposed cross tees coped to lay flush with main runners.
  - 1. Hot dipped galvanized steel on all surfaces of ceiling suspension system, including mouldings, trim and accessories unless noted otherwise.



E. Suspension System:

1. For Type 1 Ceilings (15/16" grid), white:
  - a. Prelude XL 15/16" Exposed Tee Grid System by Armstrong.
  - b. Or equal

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Installer must examine conditions under which acoustical ceiling work is to be performed and must notify Contractor in writing of unsatisfactory conditions. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to installer.

### 3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling – in accordance with approved coordination layout drawing.

### 3.3 INSTALLATION

- A. General: Install materials in accordance with manufacturer's printed instructions and to comply with governing regulations, fire resistance rating requirements as indicated, and industry standard applicable to work.
- B. Install suspension system and panels in compliance with ASTM C636; CISCA Seismic Guidelines; approved construction drawings; with the authorities having jurisdiction; and in accordance with the manufacturer's installation instructions.
- C. Locate hangers near each end and spaced maximum 4' - 0" along each main tee and as required by UL assembly unless otherwise indicated, leveling to tolerance of 1/8" in 12' - 0". Provide extra hangers and carrying channels as required to support weight at lighting fixtures, duct outlets, and other ceiling mounted items.
  1. Install hanger wires plumb and straight.
- D. Install edge mouldings of type indicated at perimeter of acoustical ceiling area and at locations where necessary to conceal edges of acoustical units. Attach mouldings to substrate at intervals not over 16" o.c. and not more than 3" from ends, leveling with ceiling suspension system to tolerance of 1/8" in 12' -0". Miter corners accurately and connect securely.
- E. Install acoustical panels in coordination with suspended system, with edges resting on flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces. Support edges by wall moldings.

### 3.4 CLEANING

- A. Clean exposed surfaces of acoustical ceilings, including trim, edge mouldings and suspension members; comply with manufacturer's instructions for cleaning and touch-up of minor finish damage.
  - 1. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage at no cost to the Owner.

END OF SECTION