## **ADDENDUM NO. 4**

to

CONTRACT DOCUMENTS

for

## AUBURN LEWISTON MUNICIPAL AIRPORT COUNTY OF ANDROSCOGGIN AUBURN, MAINE

## **CONSTRUCT NEW T-HANGAR AND TAXILANE**

FAA Project No. 3-23-0002-XXX-2024 MJ Project No. 19186.01

January 3, 2025

Addendum 4 Summary

Construct New T-Hangar and Taxilane Auburn Lewiston Municipal Airport

## ADDENDUM NO. 4

## AUBURN LEWISTON MUNICIPAL AIRPORT COUNTY OF ANDROSCOGGIN AUBURN, MAINE

## CONSTRUCT NEW T-HANGAR AND TAXILANE

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## 1. INSTRUCTIONS TO ALL HOLDERS OF CONTRACT DOCUMENTS

#### TO ALL HOLDERS OF CONTRACT DOCUMENTS

Your attention is directed to the following interpretations of, changes and additions to the Contract Documents for the project, "Construct New T-Hangar and Taxilane" at Auburn Lewiston Municipal Airport (LEW) in Auburn, Maine.

This Addendum constitutes part of the Contract Documents. Should conflicts occur between the Specifications or Drawings with items in the Addendum, the Addendum shall govern. Bidders shall examine carefully all items and determine for themselves what sub-bidders are affected, and notify all bidders or sub-bidders of clarifications, interpretations, or revisions affecting their work. Work described in this Addendum shall be in accordance with specifications for like items unless stated otherwise.

Please indicate receipt of this addendum (including date) on sheet P-3 of your Bid Proposal.

## 2. <u>Questions</u>

Q1: On page A-100, the dimensions of Column D/8 are not shown as other footing, it is shown to the center?

A1: The drawing has been updated to show dimensions. A note has been added stating "DIMENSIONS FOR CONCRETE ARE FOR REFERENCE ONLY – REFER TO STRUCTURAL DOCUMENTS FOR ALL QUANITIES AND DIMENSIONS."

Q2: On page A-101, for wall type MP1 at column 6A, please confirm the exterior shell is to be this wall type MP1 or only certain areas and confirm location.

A2: The drawing has been updated to show additional tagging. The entire exterior shell/wall system is to be type "MP-1". At the restroom, additional walls are built inside the shell.

Q3: On page A-101, what is the wall type at closet 110?

## A3: The drawing has been updated to show additional tagging.

Q4: On page A-102, at column A/1 – B/1 – C/1 – D/1 the Pier types are different from the structural drawings sheet (S-100), please clarify?

## A4: The drawings have been updated, the pier types tags are removed. Refer to structural documents for all piers.

Q5: On page A-102, at column 22/A-B-C-D the pier types are differently on the structural drawings sheet (S-100), please clarify?

## A5: The drawings have been updated, the pier types tags are removed. Refer to structural documents for all piers.

Q6: On page A-120, this is to be EF-1 Exhaust fan see sheet P-100. Is there an EH-3 Electric Unit heater?

## A6: The drawings have been updated to show "EF-1".

Q7: On page A-120 on the north elevation, please confirm there will be (2) W2 light fixtures to be installed. Elevation B/A200 and RCP sheet (A-120 has 2 to be installed at center of fixtures 8'-6" the Electrical lighting plan (E-200) only shows one above door #101A, please confirm.

A7: The drawings have been updated. For the light fixture quantity and location refer to electrical drawings.

Q8: On page A-120 above the door, please confirm the Louver Specification is to be exterior wall vent 8" Greenheck and to be mounted above the door, the plumbing sheet has it to the side of the door, and the exterior elevation has it noted as a Louver.

## A8: The drawings have been updated, the called vent is shown to the side.

Q9: On page A-120, can you clarify where Light Fixture W2 is located?

## A9: The drawing has been updated. For the light fixture quantity and location refer to electrical drawings.

Q10: On page A-200, is Light Fixture W2 above door 112?

# A10: The drawing has been updated. For the light fixture quantity and location refer to electrical drawings.

Q11: On page A-200, is light fixture W2 above door 110?

# A11: The drawing has been updated. For the light fixture quantity and location refer to electrical drawings.

Q12: On page A-200, For W2 light fixture locations, please confirm they are to be mounted center at 9'-0" or 8'-6". E-200 has them noted to be 9'-0" aff and the elevation DA-200 has them to be installed center at 8'-6".

# A12: The drawing has been updated. For the light fixture quantity and location refer to electrical drawings.

Q13: On page A-300, for the Louver above the door #111, is there a detail for the duct work and exterior vent/Louver installation?

## A13: The drawing has been updated with a detail added for vent at exterior.

Q14: On page A-440, (DWH-1) water heater does not show the concrete pad per detail 4/P-200 24"x24"x4" thick, please confirm the pad location.

## A14: The drawing has been updated. The 4" concrete pad 24"x24" is now shown and dimensioned.

Q15: On page A-441 for the fixture and accessories elevations, please confirm the # tags with boxes, what they refer to for a schedule?

# A15: The drawing has been updated, the ACC label added to the generic elevation tags for clarity.

Q16: On page A-441 the water heater does not show the concrete pad per detail 4/P-200, please clarify?

## A16: The drawing has been updated. The 4" concrete pad 24"x24" is now shown and dimensioned.

Q17: On page A-441 for B/A441 Elevation at the FRP -1 wall, is there a base detail, the FRP is 4" above the floor and the cove is up to 4", is there a transition detail?

A17: The drawing has been updated, refer to A-602. The rubber base is interrupted at the FRP and does not cover the panel. The FRP goes from floor to 8'-0" elevation (TYP).

Q18: On page A-441, will there be a paper towel dispenser in the bathroom?

A18: The drawing has been updated, the paper towel dispenser added to drawings and specifications.

Q19: On page A-441 for the specialty equipment key, please confirm key note locations.

# A19: The drawings have been updated, with keynotes changed to specification number.

Q20: On page A-602, FRP-1 is not listed on the finish schedule in the restroom RR 111 (elevation B/A-441) behind the mop sink (60 64 00), please confirm.

## A20: The drawings have been updated, FRP-1 / EP-1 is added to the North Wall.

Q21: On page E-100, Unit K Room #110 has a note on the architectural sheet that this is a manually operated door, please clarify?

## A21: Omit OH door power.

Q22: On page E-100, Unit AA is room 101A, the arch has Unit AA room #112, please clarify?

## A22: The architecture room number is correct.

Q23: On page E-100 unit AA room 112, has door 112 to be manually operated and shows a circuit?

## A23: Omit OH door power.

Q24: On page E-200 column #23, the architectural plans and structural plans have column #22 as the last column, this electrical plans has column #23?

## A24: The architectural column number is correct.

Q25: On page E-200 at door #110, please confirm the W2 light is to be installed above 13'-0" AFF the door. The Exterior Elevation A-A200 and RCP A-120 does not show this light, please clarify.

## A25: W2 to be provided per electrical drawing E-200.

Q26: On page E-200 at door #112, please confirm the W2 light is to be installed above 13'-0" AFF the door. The Exterior Elevation A-A200 and RCP A-120 does not show this light, please clarify.

## A26: W2 to be provided per electrical drawing E-200.

Q27: On page E-200 the W2 light above the door #100A is noted to be 8'-6" on elevation B/A-200, it is noted 9'-0". Is this 9'-0" to the top of the fixture or is this to be 8'-8" to the center?

# A27: Elec. 9'0 indicated is to center of fixture per exterior lighting specifications. Exact height to be determined during construction.

Q28: On page E-200 sheet B/A-200(north wall) has a W2 light fixture on this wall, but does not show a light please confirm light to be installed in this location.

## A28: No light to be provided.

Q29: On page E-300 the TPA panel location is Hangar A100 not noted on the schedule, please clarify.

## A29: TPA is located in A100.

Q30: On page P-001, sink schedule-MSB-1- the mop sink is tagged on all sheets a MS-1 and the schedule has MSB-1, please clarify.

## A30: Schedule to read MS-1. See attached updated Drawing No. P-001.

Q31: On page P-001, is the water heater installed on a concrete pad or supported on the wall?

## A31: The water heater is to be on the concrete pad. See detail on P-200.

Q32: On page P-001 key note #12 refer to 4/P400 for (DWH-1) domestic water heater detail. Please confirm the detail there is no a sheet P400, this should be 4/P-200.

## A32: Key Note #12 to reference detail 4/P-200. See attached updated Drawing No. P-100

Q33: On page P-101, BFP-1 is labeled DCV-1 on the plumbing schedule and plumbing plan, this sheet has it tagged as BFP-1, please clarify.

## A33: Isometric drawing updated to read DCV-1. See attached updated Drawing No. *P-101.*

Q34: On page P-101 the plumbing iso plan this FD-1 is labeled as a floor clean out on the plumbing plan. Please clarify.

## A34:

Sanitary ISO Plan updated to match Floor Plan. See attached updated Drawing No. *P-101.* 

Q35: On page P-101, the floor drain is not labeled, please clarify.

## A35:

# Sanitary ISO Plan updated to match Floor Plan. See attached updated Drawing No. *P-101*.

Q36: On page P-101, please confirm the expansion tank location in the riser diagram.

## A36: Expansion tank to be installed per detail # and Drawing No. 4/P-200.

Q37: Please clarify how excavation and fill will be paid for. Is all excavation and any fill required under the limits of the proposed building incidental to the building? If so, check your quantities for both excavation and fill.

A37: Yes the fill is incidental to the building per Section C-C Apron Typical Detail on Sheet C-012, fill under the hangar is per specification 31 2323. Specification section 31 2323 1.03A specifies the fill for the building is incidental. Outside of the hangar footprint, pay items P-152-4.1, P-152-4.2, and P-154-5.1 shall be used for apron, access drive, and taxilane construction as shown in the details on Sheet C-012.

Q38: Other than under the proposed building, is common borrow acceptable for fill under all other areas including pavement areas?

A38: P-152-4.2 Embankment In-Place shall utilize existing onsite material obtained from item P-152-4.1 Unclassifed Excavation less the existing topsoil

## 3. GENERAL CLARIFICATIONS

## I. Conformed Documents Clarification

The current contract plan set titled "LEW Construct New T-Hangar-Conformed Plans" and contract specification titled "LEW Construct New T-Hangar – Conformed Specs" that is on the MJ Bid Portal are conformed documents through Addendum 03 posted on 12/24/2024 only. This Addendum 04 updates the conformed documents provided in Addendum 03.

## 4. <u>REVISIONS/CLARIFICATIONS TO CONTRACT DOCUMENTS</u>

### I. CONTRACT DOCUMENTS

#### A. Award of Contract and Execution of Contract Bonds

DELETE existing AC-1 and REPLACE with Award of Contract and Execution of Contract Bonds Pages AC-1 revised attached. <u>Clarification:</u> Updated Method of Award.

## 5. <u>REVISIONS/CLARIFICATIONS TO TECHNICAL SPECIFICATIONS</u>

### I. TECHNICAL SPECIFICATIONS

Replace the following specifications with the revised documents attached:

#### A. 08 71 00 Door Hardware

Clarification: Update removes reference to specific manufacturers per the FAA requirements.

#### B. 08 71 01 Door Hardware Schedule

Clarification: Update removes reference to specific manufacturers per the FAA requirements.

#### C. 10 28 13 Toilet Accessories

Clarification: Update includes the paper towel dispenser.

## 6. <u>REVISIONS/CLARIFICATIONS TO DRAWINGS</u>

#### I. DRAWINGS

#### A. DRAWING A-100 – Construction Plan - Foundation

DELETE existing drawing A-100 and REPLACE with revised drawing A-100 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

#### B. DRAWING A-101 – Construction Plan – Main Level

DELETE existing drawing A-101 and REPLACE with revised drawing A-101 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### C. DRAWING A-102 – Curb Details

DELETE existing drawing A-102 and REPLACE with revised drawing A-102 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

#### D. DRAWING A-120 – Reflected Ceiling Plan

DELETE existing drawing A-120 and REPLACE with revised drawing A-120 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

#### E. DRAWING A-200 – Exterior Elevations

DELETE existing drawing A-200 and REPLACE with revised drawing A-200 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### F. DRAWING A-440 – Enlarged Restroom Plans

DELETE existing drawing A-440 and REPLACE with revised drawing A-440 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### G. DRAWING A-441 – Enlarged Restroom Elevations

DELETE existing drawing A-441 and REPLACE with revised drawing A-441 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### H. DRAWING A-442 – Enlarged Typical Interior Elevations

DELETE existing drawing A-442 and REPLACE with revised drawing A-442 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### I. DRAWING A-520 – Exterior Plan & Section Details

DELETE existing drawing A-520 and REPLACE with revised drawing A-520 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### J. DRAWING A-602 – Door & Signage Schedule

DELETE existing drawing A-602 and REPLACE with revised drawing A-602 attached. <u>Clarification:</u> Refer to Section 2 of Addendum 4 for the update to the drawing.

### END OF ADDENDUM NO. 4

## CONTRACT DOCUMENTS

### AWARD OF CONTRACT AND EXECUTION OF CONTRACT BONDS

#### 1. Consideration of Proposals and Award of Contract

The award of the Contract, if it is awarded, will be to the lowest responsive and responsible Bidder as described in the Method of Award below whose qualifications indicate the award will be in the best interest of the Owner and whose Proposal complies with all the prescribed requirements. No award will be made until the Owner has concluded such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability of the Bidders to do the work in accordance with the Contract Documents to the satisfaction of the Owner within the time prescribed. The Owner reserves the right to reject the bid Proposal of any Bidder who does not pass such investigation to the Owner's satisfaction. If the Contract is awarded, the Owner will give the successful Bidder written notice of the award by the Bid Valid Period date specified in the Invitation to Bid. Until the final award of the Contract, the Owner reserves the right to reject any or all Proposals, or to proceed to do the work otherwise when the best interests of the Owner will be promoted thereby.

The Method of Award for the Bid Proposal will be as follows:

Award will be to the Bidder with the lowest bid price based on the sum of Schedule A<u>, Schedule B</u> and Additive Alternate #1.

If the sum of Schedule A<u>, Schedule B</u> and Additive Alternate #1 exceeds available funding, award will be considered to the Bidder with the lowest bid price for Schedule A<u> and Schedule B</u>.

If the bid prices for Schedule A<u>and Schedule B</u> exceed available funding, the Owner may elect to cancel the entire bid.

Schedule B will be evaluated separately based on the criteria as follows:

- The Owner may elect to award Schedule B to the Bidder with the lowest Schedule A and/or Additive Alternate #1 bid price based on the above criteria.
- Or the Owner may elect to award to the Bidder with the lowest summed value of bid prices provided in Schedule B if it is in the best interest of the Owner. In this case, the Owner will award separate contracts to both the successful Schedule A and/or Additive Alternate #1 Bidder and the successful Schedule B Bidder.
- If the bid prices for Schedule B exceed available funding, the Owner may elect to cancel the Schedule B work.

Bidder's must complete Schedule A, Schedule B and Additive Alternate #1 in order to be considered responsive.

#### 2. Return of Proposal Surety

As soon as the Proposals have been compared, the Owner may, at its discretion, return the Proposal Surety accompanying those Proposals which, in its judgment, would not be considered in making the award. When award is made, the successful Bidder's Proposal Surety and that of the next low Bidder will be retained until the Contract has been executed and acceptable Contract Surety received, after which it will be returned to the Bidders. Should the award be delayed beyond the Bid Valid Period date specified in the Invitation to Bid, all Bidder's Proposal Surety will be returned, unless such delay is from causes beyond the control of the Owner. See Division 2 – Special Provision/Supplemental General Provisions, Part A Item 18 for additional information on Proposal and Contract Surety.

## **TECHNICAL SPECIFICATIONS**

#### SECTION 08 71 00 DOOR HARDWARE

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following: [ADD 04]
  - 1. Swinging doors.
  - 2. Other doors to the extent indicated.
  - 3. Thresholds.
  - 4. Weatherstripping and gasketing.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Cylinders specified for doors in other sections.
- C. Related Sections: [ADD 04]
  - 1. Section 08 11 13 Hollow Metal Doors and Frames.
  - 2. Section 08 36 13 Sectional Doors.
  - 3. Section 133419 Metal Building Systems: Man Doors and Sectional Doors.
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction. **[ADD 04]** 
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities; 2017.
  - 2. ADA Standards 2010 ADA Standards for Accessible Design; 2010.
  - 3. NFPA 70 National Electrical Code.
  - 4. NFPA 80 Fire Doors and Other Opening Protectives; 2022.
  - 5. NFPA 101 Life Safety Code.
  - 6. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard: **[ADD 04]** 
  - 1. ANSI/BHMA Certified Product Standards A156 Series.
  - 2. UL10C Positive Pressure Fire Tests of Door Assemblies.
  - 3. ANSI/UL 294 Access Control System Units.
  - 4. UL 305 Panic Hardware.
  - 5. ANSI/UL 437- Key Locks.

- 6. BHMA A156.1 Standard for Butts and Hinges; 2021.
- 7. BHMA A156.3 Exit Devices; 2020.
- 8. BHMA A156.4 Door Closers and Pivots; 2024.
- 9. BHMA A156.6 Standard for Architectural Door Trim; 2021.
- 10. BHMA A156.7 Template Hinge Dimensions; 2016.
- 11. BHMA A156.13 Mortise Locks & Latches Series 1000; 2022.
- 12. BHMA A156.18 Standard for Materials and Finishes; 2020.
- 13. BHMA A156.21 Thresholds; 2019.
- 14. BHMA A156.22 Standard for Gasketing; 2021.
- 15. BHMA A156.115 Hardware Preparation in Steel Doors and Frames; 2016.
- 16. DHI (LOCS) Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; 2004.
- 17. UL (DIR) Online Certifications Directory; Current Edition.

#### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
  - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  - 3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

- C. Shop Drawings: Details of electrified access control hardware indicating the following:
  - 1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
    - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    - b. Complete (risers, point-to-point) access control system block wiring diagrams.
    - c. Wiring instructions for each electronic component scheduled herein.
  - 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
  - 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. 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.
- D. 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.

- 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.
  - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- 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-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
  - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
  - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
  - 3. Review sequence of operation narratives for each unique access controlled opening.
  - 4. Review and finalize construction schedule and verify availability of materials.
  - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

#### J. Buy American Preference [ADD 04]

1. All work of this Section shall be in compliance with 49 USC § 50101, BABA and other related Made in America Laws (Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United

States.), U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used for this Projects shall be produced in the United States, and be certified as "Made in America".

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

#### 1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

- D. Manufacturer's Warranty: Provide warranty against defects in material and workmanship for period indicated. Complete forms in Owner's name and register with manufacturer [ADD 04].
  - 1. Closers: Five years, minimum.
  - 2. Exit Devices: Three years, minimum.
  - 3. Locksets and Cylinders: Three years, minimum.
  - 4. Other Hardware: Two years, minimum.

#### 1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- PART 2 PRODUCTS

#### 2.1 DESIGN AND PERFORMANCE CRITERIA [ADD 04]

- A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- B. Provide individual items of single type, of same model, and by same manufacturer.
- C. Provide door hardware products that comply with the following requirements:
  - 1. Applicable provisions of federal, state, and local codes.
  - 2. Accessibility: ADA Standards and ICC A117.1.
  - 3. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
- D. Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's series. See Door Hardware Schedule.

#### E. Fasteners:

- 1. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
  - a. Aluminum fasteners are not permitted.
  - b. Provide phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.
- 2. Fire-Rated Applications: Comply with NFPA 80.
  - a. Provide wood or machine screws for hinges mortised to doors or frames, strike plates to frames, and closers to doors and frames.
  - b. Provide steel through bolts for attachment of surface mounted closers, hinges, or exit devices to door panels unless proper door blocking is provided.

#### 2.2 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

#### C. [ADD 04].

#### 2.3 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1, **Grade 1**, certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
  - 1. Quantity: Provide the following hinge quantity:
    - 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 Weight and Base Material: Unless otherwise indicated, provide the following:
    - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
    - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
  - 4. Hinge Options: Comply with the following:
    - a. Non-removable Pins: With the exception of electric through wire hinges, 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.

#### 5. **[ADD 04]**

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. **[ADD 04]** 

#### 2.4 **[ADD 04]**

#### 2.5 DOOR OPERATING TRIM

- A. 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. **[ADD 04]**

#### 2.6 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. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
  - 1. Threaded mortise cylinders with rings and cams to suit hardware application.
  - 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  - 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
  - 4. Tubular deadlocks and other auxiliary locks.
  - 5. 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.
  - 6. Keyway: Manufacturer's Standard.
- D. Removable Cores: Provide removable cores as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.
- E. Keying System: Each type of lock and cylinders to be factory keyed.

- 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
- 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
- 3. New System: Key locks to a new key system as directed by the Owner.
- F. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Three (3).
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
  - 4. Construction Control Keys (where required): Two (2).
  - 5. Permanent Control Keys (where required): Two (2).
- G. Construction Keying: Provide temporary keyed construction cores.
- H. Key Registration List (Bitting List):
  - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
  - 2. Provide transcript list in writing or electronic file as directed by the Owner.

#### 2.7 KEY CONTROL

**A.** Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with selflocking 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. [ADD 04]

#### 2.8 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
  - 1. **[ADD 04]**
  - 2. Latchbolt Throw: 3/4 inch (19 mm), minimum.
  - 3. Deadbolt Throw: 1 inch (25.4 mm), minimum.
  - 4. Backset: 2-3/4 inch (70 mm) unless otherwise indicated.
  - 5. Strikes: Provide manufacturer's standard strike for each latchset or lockset with strike box and curved lip extending to protect frame in compliance with indicated requirements.
    - a. Finish: To match lock or latch.
  - 6.

#### 2.9 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.

#### 2.10 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
  - 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
  - 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
  - 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
  - 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
  - 5. 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.

- 6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
- 7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
- 8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
- 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. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
  - 1. **[ADD 04]**

#### 2.11 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.
  - 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. 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 Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
  - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  - 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
  - 6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

- 1. **[ADD 04]**
- C. [ADD 04]
- D. [ADD 04]

#### 2.12 DOOR STOPS AND HOLDERS

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

#### 1. **[ADD 04]**

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed 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. **[ADD 04]**

#### 2.13 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. [ADD 04]
- G. THRESHOLDS [ADD 04]
  - 1. Thresholds: Comply with BHMA A156.21.
    - a. Provide threshold at each exterior door, unless otherwise indicated.
    - b. Type: Flat surface.
    - c. Material: Aluminum.
    - d. Threshold Surface: Fluted horizontal grooves across full width.
    - e. Field cut threshold to profile of frame and width of door sill for tight fit.
    - f. Provide non-corroding fasteners at exterior locations.

#### H. WEATHERSTRIPPING AND GASKETING [ADD 04]

- . Weatherstripping and Gasketing: Comply with BHMA A156.22.
  - a. Head and Jamb Type: Adjustable.
  - b. Door Sweep Type: Encased in retainer.
  - c. Material: Rubber, with brush weatherstripping.
  - d. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated.
  - e. Provide door bottom sweep on each exterior door, unless otherwise indicated.

#### 2.14 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.

#### 2.15 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

#### 3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

#### 3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
  - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
  - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

#### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

#### 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. Refer to Section 08 71 01, Door Hardware Sets, for hardware sets. [ADD 04]

#### END OF SECTION

#### SECTION 08 71 01 DOOR HARDWARE SCHEDULE

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section references specification sections relating to commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Other doors to the extent indicated.
- B. Commercial door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Cylinders specified for doors in other sections.
- C. Related Sections:
  - 1. Section 08 71 00 "Door Hardware".[ADD 04]
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction. **[ADD 04]** 
  - 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. State Building Codes, Local Amendments.
  - 8. BHMA (CPD) Certified Products Directory; Current Edition.
  - 9. BHMA A156.3 Exit Devices; 2020.
  - 10. BHMA A156.5 Cylinders and Input Devices for Locks; 2020.
  - 11. BHMA A156.13 Mortise Locks & Latches Series 1000; 2022.
  - 12. BHMA A156.18 Standard for Materials and Finishes; 2020.
  - 13. DHI (H&S) Sequence and Format for the Hardware Schedule; 2019.
- E. Standards: Reference Related Sections for requirements regarding compliance with applicable industry standards.

#### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
  - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  - 3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
  - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Keying Schedule: Prepared under the supervision of the Owner, separate schedule detailing final keying instructions for locksets and cylinders in writing. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner to approve submitted keying schedule prior to the ordering of permanent cylinders.
- D. 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.
- E. 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. The manual to include the name, address, and contact information of the manufacturers providing the hardware and their nearest service representatives. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

F. Warranties and Maintenance: Special warranties and maintenance agreements specified in the Related Sections.

#### 1.4 QUALITY ASSURANCE [ADD 04]

- A. Buy American Preference
  - 1. All work of this Section shall be in compliance with 49 USC § 50101, BABA and other related Made in America Laws (Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.), U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used for this Projects shall be produced in the United States, and be certified as "Made in America".

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.6 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.

#### 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.

PART 2 - PRODUCTS

- 2.1 SCHEDULED DOOR HARDWARE
  - A. Refer to "PART 3 EXECUTION" for required specification sections.

#### 2.2 LOCK FUNCTION CODES [ADD 04]

- A. Function Codes for Cylindrical Locks: Complying with BHMA A156.5.
  - 1. Code F86; Storeroom Lock: Outside knob/lever always locked/rigid. Latchbolt retracted by key in outside knob/lever or by rotating inside knob/lever. Inside knob/lever always free. Deadlocking latchbolt.
- B. Function Codes for Mortise Locks: Complying with BHMA A156.13.
  - 1. Code F07; Storeroom/Exit Lock: Deadlocking latch bolt by inside knob or key outside. Outside knob rigid.
- C. Function Codes for Exit Devices: Complying with BHMA A156.3.
- 2.3 FINISHES [ADD 04]
  - A. Finishes: Complying with BHMA A156.18.
    - 1. Code 626: Satin chromium plated over nickel, with brass or bronze base material (former US equivalent US26D).
    - 2. Code 630: Satin stainless steel, with stainless steel 300 series base material (former US equivalent US32D).

#### PART 3 - EXECUTION

- 3.1 DOOR HARDWARE SETS
  - A. The door 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. Products listed in the hardware sets shall be supplied by and in accordance with the requirements described in the specification section as noted for each item.
  - 1. Section 08 71 00 Door Hardware.
  - 2. **[ADD 04]**
- C. [ADD 04]

### Hardware Sets Set: 4.0

US32 [ADD 3]

Doors: 111,110A

3	5 Knuckle Hinges 4.5x4.5	US32 [ADD 3]
1	Storeroom Lock	US32 [ADD 3]
1	Surface Closer	689
1	Conc Overhead Stop	US32 [ADD 3]
1	Threshold	
1	Gasketing	
1	Sweep	
		Set: 2.0

Doors: 100A, 109A

#### 3 5 Knuckle Hinges 4.5x4.5

- 1Storeroom LockUS32 [ADD 3]1Surface Closer689
- 1 Conc Overhead Stop
- 1 Threshold
- 1 Gasketing
- 1 Sweep

	<u>Set: 1.0</u>
Doors: 100,101,102,103,104,105,106,107,108,109	

#### 

1 Sweep

#### <u>Set: 3.0</u>

Doors: 110,112

1 Mortise Cylinder as required

US32 [ADD 3]

Notes: Balance of hardware by overhead door supplier

**END OF SECTION** 

### Section 10 2813 TOILET ACCESSORIES

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Furnish and install toilet, bath and custodial accessories.
- B. Furnish and install protection padding for exposed piping.
- C. Furnish concealed anchorage devices for handicap handrails for installation under Section 06 1000 ROUGH CARPENTRY.
- D. Furnish toilet and bath accessory templates, to locate anchorage reinforcement, to trades responsible.

#### 1.2 RELATED REQUIREMENTS

- A. Section 06 1000 ROUGH CARPENTRY:
  - 1. Wood blocking.
  - 2. Installation of concealed anchorage devices for grab bars in toilet rooms: Section 10 2813 - TOILET ACCESSORIES.
- B. Section 09 2900 GYPSUM BOARD: Gypsum board partitions and metal framing.
- C. Section 10 2119 PHENOLIC TOILET COMPARTMENTS.

#### 1.3 REFERENCES

- A. Referenced Standards: Comply with applicable requirements of the following standards and those others referenced in this Section, under the provisions of Section 01 4200 REFERENCES. The standards referenced herein are included to establish recognized minimum quality only. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern. Equivalent quality and testing standards will be acceptable, subject to their timely submission, review and acceptance by the Architect.
  - 1. ANSI A 117.1 Specifications for Making Buildings and Facilities Accessible To and Usable by Physically Handicapped People.
  - 2. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - ASTM A240/A240M Standard Specification for Chromium and ChromiumNickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
  - 4. ASTM A480/A480M Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
  - 5. ASTM A269 Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
  - 6. ASTM A1008/A1008M Standard Specification for Steel, Sheet, Cold-Rolled,

Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable.

7. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.

#### 1.4 ADMINISTRATIVE REQUIREMENTS

- A. Pre-construction Conference:
  - General Contractor and ALL subcontractors, installers, applicators, and vendors are required to have authorized representatives in attendance at mandatory Pre-Construction Conference. This conference specified under Document 00 80 13 – CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) is mandated by the FAA and is a review of operational, safety, and performance requirements for the Project. The following subjects will be covered: a. Project Overview
    - b. Labor requirements
    - c. Operation Safety Items
    - d. Construction
    - e. Temporary Facilities and Controls
    - f. Project Closeout:
    - g. The Contractor will be reminded to prepare and submit the required Safety Plan Compliance Document (SPCD) prior to beginning construction.

#### 1.5 SUBMITTALS

- A. Information and Review Submittals: Submit the following under provisions of Section 01 3000 – ADMINISTRATIVE REQUIREMENTS:
  - 1. Literature: Manufacturer's product data sheets, for each item furnished hereunder.
  - 2. Schedule: Complete schedule, indicating types, quantity, and model numbers of accessories for each location in which the accessories will be installed.
  - 3. Selection samples: Sample color chips indicating each manufacturer's full range of colors available for selection by Architect.
  - 4. Verification samples: Complete units, as requested by Architect.

#### 1.6 QUALITY ASSURANCE [ADD023]

- **A.** General: Notify the Architect where conflicts apply between referenced standards and existing materials, and existing methods of construction.
- **B.** Buy American Preference
  - All work of this Section shall be in compliance with 49 USC § 50101, BABA and other related Made in America Laws (Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or

provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United

States), U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used for this Projects shall be produced in the United States, and be certified as "Made in America".

#### 1.61.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original packages, containers or bundles bearing brand name, identification of manufacturer or supplier and item identification number corresponding with approved schedule.
- B. Store materials inside, under cover, and in manner to keep them dry, protected from weather, surface contamination, corrosion and damage from construction traffic and other causes.

#### 1.71.8 SEQUENCING AND SCHEDULING

- A. Coordinate the work of this Section with placement of internal wall reinforcement and reinforcement of toilet partitions to receive anchor attachments.
- B. Coordinate the work of this Section with placement of internal wall reinforcement.

#### 1.81.9 WARRANTY

- A. General: Submit the following warranties under provisions of Section 01 7800 CLOSEOUT SUBMITTALS.
  - 1. Warranties shall be effective starting from Date of Project Substantial Completion and are effective for specified term lengths.
- B. Manufacturer Warranty: In addition to the specific guarantee requirements of the GENERAL CONDITIONS and SUPPLEMENTAL GENERAL CONDITIONS, the Contractor shall obtain in the Owner's name the standard written manufacturer's guarantee of all materials furnished under this Section where such guarantees are offered in the manufacturer's published product data. All these guarantees shall be in addition to, and not in lieu of, other liabilities which the Contractor may have by law or other provisions of the Contract Documents.

#### **PART 2 - PRODUCTS**

- 2.1 [ADD 02]
- 2.2 MATERIALS
  - A. Sheet steel: Cold rolled, commercial quality, ANSI/ASTM A1008.
  - B. Stainless steel sheet: ASTM A240/A240M, Type 302/304.
  - C. Tubing: ASTM A269 stainless steel.
- 2.3 TOILET ACCESSORIES

- A. Coat/robe hook: Surface-mounted hat and coat hook shall be Type 304 stainless steel with satin finish. Flange and support arm shall be 22 gauge (0.8mm) and equipped with a concealed, 16-gauge (1.6mm) mounting bracket that is secured to a concealed, 16 gauge (1.6mm) wall plate with a stainless steel setscrew. Hook shall be 12 gauge (2.8mm), welded to the support arm.
  - 1. [ADD 02]
- B. Grab bars
  - 1. Grab Bar Loading Criteria :
    - a. Bending stress in a grab bar induced by the maximum bending moment from the application of 250 lbs. shall be less than the allowable stress for the material of the grab bar.
    - b. Shear stress induced in a grab bar by the application of 250 lbs. shall be less than the allowable shear stress for the material of the grab bar. If the connection between the grab bar and its mounting bracket or other supports is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.
    - c. Shear force induced in a fastener or mounting device from the application of 250 lbs. shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
    - d. Tensile force induced in a fastener by direct tension force of 250 lbs. plus the maximum moment from the application of 250 lbs. shall be less than the allowable withdrawal load between the fastener and the supporting structure
    - e. Grab bars shall not rotate within their fittings.
  - 2. Grab bars: Stainless steel, minimum wall thickness 18 gage (Stub's gage), with non-slip knurled, peened or striated surface, 1-1/4 inch diameter with satin finished ends, concealed 1/8 inch thick mounting flange with snap-on cover.
    - a. Grab bars adjacent to toilets: L-Shape, 40 inches horizontal and 30 inches vertical):
      - 1) [ADD 02]
    - b. Grab bars behind toilets, straight bar 42 inches horizontal):
      - 1) [ADD 02]
- C. Soap Dish: Surface mounted soap dish unit fabricated from type 304 stainless steel with satin polished finish. Shell and flange shall be drawn and beveled, one-piece, seamless construction.
  - 1. [ADD 02]
- D. Mirrors with adjustable tilt frame: 18 inches wide by 30 inches high, having the following:
  - 1. Frame: one piece 3/4/ by 3/4 inch stainless steel roll formed frame, with continuous integral stiffener on all sides. Corners shall be heliarc welded, ground and polished smooth. Corners.

- 2. Back: Back shall be protected by full-size, shock-absorbing, water-resistant, nonabrasive, 3/16" (5mm) thick polyethylene padding. Over which is a galvanized steel back secured to frame with concealed screws.
- 3. Mounting: Side brackets with tilting with self-locking mechanism; bottom of mirror mounted to wall with full-length stainless-steel piano hinge.
- 4. Mirror glass: 1/4 inch thick glass, ASTM C1048 complying with Class 1 clear, quality q3 glazing select, conforming to ANSI Z97.1, with Class 1, standard commercial quality, electro-copper back-plating protected by a corrosionresistant zinc-coating.
- 5. [ADD 02]
- E. Paper Towel Dispenser: Manual, roll paper type. [ADD 04]
  - 1. Paper Discharge: Manual by lever operation.
  - 2. Capacity: 6 inch roll diameter.
  - 3. Mounting: Surface Mounted.
  - 4. Refill Indicator: Transparent viewing slot.
- F. Mop and broom holder: Surface mounted, nominal 34 inch long stainless steel unit with 18 gage 8 inch deep continuous shelf, 4 stainless hooks and 3 mop/broom holders, anti-slip spring loaded, rubber cam mop holders, capable of holding 7/8 to 1-1/4 inch diameter handles.
  - 1. [ADD 02]
- G. Toilet tissue dispenser, double roll type: Surface-mounted toilet tissue dispenser with cast aluminum bracket, molded and extruded ABS spindles, vandelproof keyed locking mechanism, able to accommodate two 2000 sheet rolls.
  - 1. [ADD 02]
- 2.4 ADA PIPING PROTECTION
  - A. [ADD 02]
  - B. Description: 1/8 inch thick pliable polyvinyl chloride protective cladding on all drainage piping including hot and cold water valve and supplies under lavatories to comply with ADA and UPC standards. Covers shall be secured by custom fit, tamper-resistant snap-to-lock fasteners.
    - 1. Complies with ICC/ANSI A117.1 (sec 606.6).
    - 2. PVC Base Insulation Material, Class A rated complying with 25 Flame Spread/450 Smoke Index (tested under ASTM E84).
    - 3. Color: White or Black as selected by Architect. [ADD 02]
- 2.5 LOCKS
  - A. General: All locks shall be keyed alike. Provide four (4) keys, for lockable accessories, to the Owner.

#### 2.6 INSTALLATION ACCESSORIES

A. Fasteners, screws, and bolts: Type 304 stainless, tamperproof.

B. Expansion shields: Fiber, lead or rubber as recommended by accessory manufacturer for component and substrate.

#### 2.7 FABRICATION

- A. Form exposed surfaces from single sheet of stock, free of joints. Form surfaces flat without distortion, scratches or dents. Weld and grind smooth joints of fabricated components.
- B. Back paint components where contact is made with building finishes to prevent electrolysis.
- C. Shop assemble components and package complete with anchors and fittings. Hot dip galvanize exposed and painted ferrous metal and fastening devices. Provide steel anchor plates, adapters, and anchor components for installation.

#### 2.8 FACTORY FINISHING

- A. Ferrous metals: Clean and treat, spray apply one coat of baked-on rust and moisture-resistant primer, followed by two coats of baked-on synthetic enamel, in selected colors. Ensure that finish coating is uniform in color intensity and degree of gloss, throughout.
- B. Chrome/Nickel Plating: ASTM B456, Type SC2, satin finish.
- C. Stainless steel: Number 4 satin finish, except as otherwise specified above under the Article entitled "Toilet Accessories".

#### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Provide templates and rough-in measurements as required. Deliver inserts and rough-in frames to site at appropriate times for building-in by other trades
- B. Coordinate with trades responsible for providing receiving surfaces on which accessories will be installed.
- C. Exact locations of accessories within each room or area shall be as directed by the Architect.

#### 3.2 INSTALLATION

- A. Perform installation work in accordance with the approved shop drawings and the manufacturer's installation instructions.
- B. Install toilet accessories absolutely level and in true line, securely and rigidly anchored with theft proof fasteners of the size and type most appropriate for the specific receiving surface, concealing the fasteners as far as practicable.

#### 3.3 ADJUSTING

A. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.

### 3.4 CLEANING

A. Remove all protective films and coverings from accessories, and clean and polish each piece. Remove all rubbish, packing materials, and debris, caused by the work of this Section.

End of Section

DRAWINGS



Project:
CONSTRUCT NEW
IAXILANE
45 FLIGHT LINE DRIVE,
AUBURN, ME 04210
Client:
Auburn-Lewiston
Municipal Airport
Auburn, ME
t. 207 786 0631
McFarland Johnson
53 Regional Drive
Concord, NH 03301
<b>Fennick</b>
Architecture
ream:
Architect: Fennick McCredie Architecture
70 Franklin Street Boston Ma 02110
t. 617.350.7900
Structural/MEP Engineer:
49 Court St, Suite 240
Binghamton, NY 13901 t. 607.723.9421
Civil Engineer:
McFarland Johnson
Binghamton, NY 13901
t. 607.723.9421
ISSUE FOR BID
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3 01/03/25 ADD NO.4
Job No.: 1260
Checked By: DMC
Issue: ISSUE FOR BID
Date: 11/21/2024
Scale: 3/32" = 1'-0"
PLAN - FOUNDATION
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Drawing No.:
A-100





Project:
TAXILANE
45 FLIGHT LINE DRIVE,
AUBURN, ME 04210
Client:
Auburn-Lewiston
Municipal Airport
80 Airport Drive
t. 207 786 0631
McFarland Johnson
53 Regional Drive
Concord, NH 03301
Thennick McCredie
Architecture
Team:
Architect:
Fennick McCredie Architecture 70 Franklin Street
Boston, Ma 02110
Structural/MEP Engineer
McFarland Johnson
49 Court St, Suite 240 Binghamton, NY 13901
t. 607.723.9421
Civil Engineer: McEarland, Johnson
49 Court St, Suite 240
Binghamton, NY 13901 t. 607.723.9421
Stamp:
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		Project:
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MANUALLY OPERATED STEEL SECTIONAL DOOR WITH POWDE	R	
COATED EPOXY FINISH, WITH GALVANIZED STEEL TRACK AND	T.O. ROOF EL= 18' - 4 1/4"	
W2 / MANUAL CHAIN OPERATOR, ANI		45 FLIGHT LINE DRIVE, AUBURN, ME 04210
	<u>C.O.S. PERIMETER</u> EL= 16' - 0"	Olianti
	<u>LO. CLEAR DOOR</u> EL= 12' - 0"	
	T.O. CONC.	Auburn-Lewiston
		Municipal Airport
		Auburn, ME t. 207 786 0631
		McFarland Johnson
		Concord, NH 03301
		Hennick McCredie
		Architecture
		Team:
		Architect:
		70 Franklin Street
		t. 617.350.7900
		Structural/MEP Engineer:
		49 Court St, Suite 240
		t. 607.723.9421
		Civil Engineer:
		49 Court St, Suite 240
		Binghamton, NY 13901 t. 607.723.9421
(20) $(201)$ $(21)$ $(22)$		
	[08 36 13] FURNISH AND INSTALL MANUALLY OPERATED STEEL	
	SECTIONAL DOOR WITH POWDER — COATED EPOXY FINISH, WITH COALVANIZED STEEL TRACK AND	Stamp:
	MANUAL CHAIN OPERATOR, AND KEYLOCK (TYP) I.U. KUUL	
	EL= 18' - 4 1/4"	
	T.O.S. PERIMETER	
	PROFILE METAL SIDING PANELS WITH PVDF COATING AT EXTERIOR	
	WALLS AND BI-FOLD DOORS (TYP) T.O. CONC.	
	[03 30 00] CONTINUOUS CONCRETE	
	BUIILDING - REFER TO STRUCTURAL DOCUMENTS FOR	
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		3 01/03/23 ADD NO.4
FOR THE METAL BUILDING SYSTEM SHA	LL BE	
LINS, AND EXTERIOR WALL GIRTS.		
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		Issue: ISSUE FOR BID
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SPECIALTY EQUIPMENT KEY	
DESCRIPTION	SPEC. NO.
t Tissue Dispenser	10 28 13
Speed Surface-Mounted ADA Compliant Hand Dryer	10 28 19
B BAR 42" LONG W/ 18" VERTICAL LEG	10 28 13
ck B-2112 Classic Series Surface Mounted Soap Dispenser	10 28 13
ROR WITH ADJUSTABLE TILT FRAME	10 28 13
W BOX - EMERGENCY KEY CABINET	08 71 00

Project:
I-HANGAR AND
TAXILANE
45 FLIGHT LINE DRIVE
AUBURN, ME 04210
Auburn-Lewiston
Municipal Airport
80 Airport Drive
Auburn, ME t. 207 786 0631
McDarland Johnson
MicFarland Johnson
53 Regional Drive Concord, NH 03301
Fennick
McCredie     Architecture
Team <sup>.</sup>
Architect
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70 Franklin Street Boston. Ma 02110
t. 617.350.7900
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49 Court St, Suite 240
Binghamton, NY 13901 t. 607.723.9421
Civil Engineer
McFarland Johnson
Binghamton, NY 13901
t. 607.723.9421
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Stamp: ISSUE FOR BID No. Date Revision 2 12/10/24 ADD NO.2 3 01/03/25 ADD NO.4 Job No.: 1260 Drawn By: DM Checked By: DMC Issue: ISSUE FOR BID Date: 11/21/2024 Scale: As indicated Drawing Title: ENLARGED RESTROOM PLANS Drawing No.: A-440



## END OF SECTION

- 3.7 PROTECTION

3.5 TOLERANCES

3.6 CLEANING

[07 21 00] 10" MINERAL FIBER **INSULATION IN JOISTS AT** CONDITIONED SPACES MIN R VALUE R-30 (TYP) \*SCHEDULE B

[07 21 00] 6" MINERAL FIBER

CONDITIONED SPACES MIN R

[13 34 19] INTERIOR PARTITION

PROFILE PRB PANELS WITH PVDF

COATING (BLUE LINE INDICATES

SIDE THE INTEIOR PARTITION

METAL PANEL IS APPLIED (TYP)

[06 10 00] FURNISH AND INSTALL

BLOCKING AT ALL BRACKET

SYSTEM (TYP)

MOUNTED FIRE EXTINGUISHER

LOCATIONS - SECURED TO GIRT

[13 34 19] BI-FOLDING HANGAR

ELECTRICAL DOCUMENTS FOR ADDITIONAL INFORMATION (TYP)

D

PART1 GENERAL

1.3 SUBMITTALS

1.5 FIELD CONDITIONS

1.6 WARRANTY

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. PLASTIC PANELING:

2.2 PLASTIC PANELING

2.3 ACCESSORIES

PART 3 EXECUTION

3.1 EXAMINATION

3.2 PREPARATION

3.3 INSTALLATION - GENERAL

3.4 INSTALLATION - PLASTIC PANEL WALLS

1.1 SECTION INCLUDES

1.2 REFERENCE STANDARDS

SCALE: 1/4" = 1'-0"

**SECTION 066400** 

PLASTIC PANELING

A. PLASTIC LINER PANEL ASSEMBLIES.

1.4 DELIVERY, STORAGE, AND HANDLING

DOORS WITH ELECTRIC

OPERATOR AND INTEGRAL

EGRESS DOOR. REFER TO

PAINTED FIRE RETARDANT PANELS

GIRTS WITH TRAPIZOIDAL RIB

VALUE R-21 (TYP) \*SCHEDULE B

INSULATION IN STUDS AT

ITEM\*

ITEM\*

Ó D

С

2' - 6"

ACC-10

BOARD UNDERSLAB AT

ITEM\*

+ EP-1

100] 3" BIGHD INSULATION

CONDITIONED SPACES-XPS MIN R

VALUE R-15 (TYP) \*SCHEDULE B

6

WIDTH

ō

[03 30 00] 6" WIDE CONCRETE CURE

A. ASTM E84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS; 2023D.

DEGREES C) MINIMUM. MAINTAIN TEMPERATURE FOR 24 HOURS BEFORE, DURING, AND AFTER FIELD-CUTTING.

B. ASTM F1941/F1941M - STANDARD SPECIFICATION FOR ELECTRODEPOSITED COATINGS ON MECHANICAL FASTENERS, INCH AND METRIC; 2016.

B. SAMPLES: FOR EACH WALL PANEL TYPE, TWO SAMPLES, 6 INCHES BY 6 INCHES (150 MM BY 150 MM) IN SIZE, INDICATING SPECIFIED COLOR AND TEXTURE.

B. THREADED FASTENERS: TYPE AND SIZE AS RECOMMENDED BY PANELING MANUFACTURER FOR SUBSTRATE, APPLICATION, AND CORROSION RISK.

C. ADHESIVES: TYPE RECOMMENDED BY PANEL MANUFACTURER FOR APPLICATION; NOT CONTAINING FORMALDEHYDE OR VOLATILE ORGANIC COMPOUNDS.

B. FIELD-CUT PANELS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. MAKE STRAIGHT AND SQUARE CUTS; DO NOT DAMAGE PANELS.

1. LOW CORROSION RISK: CARBON STEEL WITH ELECTRODEPOSITED ZINC COATINGS ASTM F1941/F1941M COATING DESIGNATION FE/ZN 5.

A. AMBIENT FIELD-CUTTING CONDITIONS: BEFORE FIELD-CUTTING PANELS IN TEMPERATURES BELOW 40 DEGREES F (4.4 DEGREES C), WARM SPACE TO 60 DEGREES F (16

B. SURFACE BURNING REQUIREMENTS, INTERIOR USE: FLAME SPREAD INDEX OF 25 OR LESS AND SMOKE-DEVELOPMENT INDEX OF 450 OR LESS; CLASS A CLASSIFICATION WHEN

- REFER TO STRUCTURAL

INFORMATION (TYP)

**DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES** 

A. SEE SECTION 013000 - ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES.

A. SEE SECTION 017800 - CLOSEOUT SUBMITTALS FOR ADDITIONAL WARRANTY REQUIREMENTS.

A. MATERIAL: 100 PERCENT VIRGIN PVC (POLYVINYL CHLORIDE), EXTERIOR GRADE.

SIZE: 1-INCH (25 MM) OUTSIDE DIAMETER; 3/8-INCH (9.5 MM) INSIDE DIAMETER.

D. JOINT SEALANTS: TYPE RECOMMENDED BY PANELING MANUFACTURER FOR APPLICATION.

A. SURFACE PREPARATION: CLEAN SUBSTRATE SURFACES PRIOR TO INSTALLING PANELING.

A. INSTALL PANELS AND TRIM IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

A. PLASTIC SPACERS: RIGID NYLON SPACERS, SAME THICKNESS AS PANEL.

A. VERIFY FIELD MEASUREMENTS ARE AS INDICATED ON SHOP DRAWINGS.

B. VERIFY SUBSTRATES ARE PREPARED TO RECEIVE PLASTIC PANELING.

B. INSTALL PANEL LAYOUT AS INDICATED ON APPROVED SHOP DRAWINGS.

C. INSTALL WALL PANELS PLUMB WITHIN SPECIFIED TOLERANCES.

A. MAXIMUM VARIATION FROM TRUE POSITION: 1/4 INCH (6.4 MM).

1. NUDO PRODUCTS, INC; \_\_\_\_: WWW.NUDO.COM/#SLE.

TESTED IN ACCORDANCE WITH ASTM E84.

**ENLARGED INTERIOR ELEVATIONS D - TYPICAL SECTION** 

DOCUMENTS FOR ADDITIONAL

- A. PROTECT INSTALLED PLASTIC PANELING FROM SUBSEQUENT CONSTRUCTION OPERATIONS.

B. MAXIMUM VARIATION FROM PLUMB: 1/4 INCH IN 10 FEET (2 MM IN 1 M) C. MAXIMUM VARIATION FROM LEVEL: 1/4 INCH IN 10 FEET (2 MM IN 1 M).

- A. SEE SECTION 017000 EXECUTION AND CLOSEOUT REQUIREMENTS FOR ADDITIONAL REQUIREMENTS.

D. INSTALL SEALANT TO PREVENT WATER INTRUSION IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.

A. MAINTAIN MANUFACTURER RECOMMENDED GAP TOLERANCES BETWEEN PANELS AND ADJACENT ABUTMENTS.

- B. CLEAN EXPOSED SURFACES OF PANELS AND TRIM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

![](_page_50_Figure_40.jpeg)

[13 34 19] INTERIOR PARTITION GIRTS WITH TRAPIZOIDAL RIB PROFILE PRB PANELS WITH PVDF COATING (BLUE LINE INDICATES SIDE THE INTEIOR PARTITION METAL PANEL IS APPLIED (TYP)

[08 31 00] FURNISH AND INSTALL WALL MOUNTED STEEL FRAME ACCESS DOOR MIN 16 GA. WITH TAMPER PROOF TOOL-OPERATED LATCHES- BASIS OF DESIGN BEST SERIES BA-L01D (TYP)

[06 10 00] FURNISH AND INSTALL PAINTED FIRE RETARDANT -BLOCKING AS REQUIRED TO INSTALL SECTIONAL OVERHEAD DOORS (TYP)

[06 10 00] FURNISH AND INSTALL PAINTED FIRE FIRE RETARDANT -PANELS AT ALL WALL MOUNTED LIGHT FIXTURES - SECURED TO GIRT SYSTEM (TYP)

[06 10 00] FURNISH AND INSTALL PAINTED FIRE RETARDANT -BLOCKING AS REQUIRED TO ELECTRICAL DEVICES (SWITCHES ETC) BETWEEN GIRTS (TYP)

[13 34 19] STEEL GIRTS AT EXTERIOR WALL (TYP)

[03 30 00] CONTINUOUS CONCRETE FROST WALL AT PERIMETER OF -BUIILDING - REFER TO STRUCTURAL DOCUMENTS FOR ADDITIONAL INFORMATION (TYP)

![](_page_50_Figure_48.jpeg)

## **SECTION 083100** ACCESS DOORS AND PANELS

## PART 1 GENERAL

- 1.1 SECTION INCLUDES
- A. WALL- AND CEILING-MOUNTED ACCESS UNITS.
- 1.2 REFERENCE STANDARDS
- 1.3 SUBMITTALS
- A. SEE SECTION 013000 ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES.
- B. SHOP DRAWINGS: INDICATE EXACT POSITION OF EACH ACCESS DOOR AND/OR PANEL UNIT.
- PART 2 PRODUCTS

## 2.1 ACCESS DOORS AND PANELS ASSEMBLIES

2.2 WALL- AND CEILING-MOUNTED ACCESS UNITS

A. MANUFACTURERS:

- UNIVERSAL ACCESS PANEL DRYWALL: BEST ACCESS DOORS; SERIES BA-UAP.
- b. INSULATED ACCESS PANEL: BEST ACCESS DOORS; SERIES BA-ALI.
- B. WALL- AND CEILING-MOUNTED UNITS: FACTORY-FABRICATED DOOR AND FRAME, FULLY ASSEMBLED UNITS WITH CORNER JOINTS WELDED, FILLED AND GROUND FLUSH; SQUARE AND WITHOUT RACK OR WARP; COORDINATE REQUIREMENTS WITH TYPE OF INSTALLATION ASSEMBLY BEING USED FOR EACH UNIT. 1. MATERIAL: STEEL.
- 2. DOOR STYLE: SINGLE THICKNESS WITH ROLLED OR TURNED IN EDGES.

BEST ACCESS DOORS: WWW.BESTACCESSDOORS.COM/#SLE.

- 3. FRAMES: 16-GAUGE, 0.0598-INCH (1.52 MM) MINIMUM THICKNESS.
- 4. HEAVY-DUTY FRAMES: 14-GAUGE, 0.0747-INCH (1.89 MM) MINIMUM THICKNESS.
- 5. SINGLE STEEL SHEET DOOR PANELS: 16-GAUGE, 0,0625-INCH (1.6 MM) MINIMUM THICKNESS.
- 6. HEAVY-DUTY SINGLE STEEL SHEET DOOR PANELS: 14-GAUGE, 0.0747-INCH (1.89 MM) MINIMUM THICKNESS.
- 7. STEEL FINISH: PRIMED.
- 8. PRIMED AND FACTORY FINISH: POLYESTER POWDER COAT; COLOR AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS. 9. HARDWARE:
- a. HINGES FOR NON-FIRE-RATED UNITS: CONCEALED, CONSTANT FORCE CLOSURE SPRING TYPE.
- b. LATCH/LOCK: TAMPERPROOF TOOL-OPERATED CAM LATCH.

## PART 3 EXECUTION

- 3.1 EXAMINATION
- A. VERIFY THAT ROUGH OPENINGS ARE CORRECTLY SIZED AND LOCATED.
- B. BEGIN INSTALLATION ONLY AFTER SUBSTRATES HAVE BEEN PROPERLY PREPARED, AND IF THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.
- 3.2 PREPARATION
- A. PREPARE SURFACES USING METHODS RECOMMENDED BY MANUFACTURER FOR APPLICABLE SUBSTRATES IN ACCORDANCE WITH PROJECT CONDITIONS.

## 3.3 INSTALLATION

- A. INSTALL UNITS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. INSTALL FRAMES PLUMB AND LEVEL IN OPENINGS, AND SECURE UNITS RIGIDLY IN PLACE.
- C. POSITION UNITS TO PROVIDE CONVENIENT ACCESS TO CONCEALED EQUIPMENT WHEN NECESSARY.

## END OF SECTION

## GENERAL FINISH NOTES

- 1. ALL GWB WALLS TO RECEIVE PNT-1 UNO
- 2. ALL PTD WOOD AND METAL SURFACE TO RECEIVE SEMI-GLOSS PNT UNO.
- 3. PROVIDE TRANSITION/REDUCER STRIPS AT ALL CHANGES IN FLOORING, TYP.
- 4. CLOSET FINISHES TO BE SAME AS ROOM SERVED.
- 5. PAINT UNDERSIDE OF STAIR CONSTRUCTION ABOVE.
- 6. UNO, ALL CLOSETS TO RECEIVE COAT ROD AND MELAMINE SHELF, TYP.
- 7. ALL EXPOSED GWB SURFACE TO BE PAINTED.
- 8. ALL MATERAL TRANSITION TO OCCUR UNDER DOOR, WHERE APPLICABLE.

13 34 19] STEEL ROOF PURLINS IZED AND SPACED AS REQUIRED Y METAL BUILDING IANUFACTURER. NOT SHOWN FOR LARITY (TYP)
3 34 19] INTERIOR PARTITION

GIRTS WITH TRAPEZOIDAL RIB PROFILE PRB PANELS - GIRTS SHOWN BEHIND PRB (TYP)

[06 10 00] FURNISH AND INSTALL PAINTED FIRE RETARDANT PLYWOOD BACKER PANELS BETWEEN GIRTS FOR ALL ELECTRICAL PANELS AND METERS

[03 30 00] CAST IN PLACE CONCRETE - SLAB ON GRADE --REFER TO STRUCTURAL DOCUMENTS FOR ADDITIONAL INFORMATION (TYP)

[03 30 00] 6" WIDE CONCRETE CURB - REFER TO STRUCTURAL DOCUMENTS FOR ADDITIONAL INFORMATION (TYP)

Project:
CONSTRUCT NEW
TAXILANE
45 ELIGHT LINE DRIVE
AUBURN, ME 04210
Client:
Auburn Lowiston
Municipal Airport
80 Airport Drive
Auburn, ME t 207 786 0631
McFarland Johnson
53 Regional Drive
Fennick
McCredie
Architecture
Team:
Architect:
70 Franklin Street
Boston, Ma 02110 t. 617.350.7900
Structural/MEP Engineer:
McFarland Johnson
49 Court St, Suite 240 Binghamton, NY 13901
t. 607.723.9421
Civil Engineer:
McFarland Johnson 49 Court St. Suite 240
Binghamton, NY 13901
t. 607.723.9421
Stamp:
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Stamp:         ISSUE FOR BID         No.       Date         Revision         3       01/03/25         ADD NO.4         Job No.:       1260         Drawn By:       DM         Checked By:       Checker         Issue:       ISSUE FOR BID         Date:       11/21/2024
Stamp:         ISSUE FOR BID         No.       Date       Revision         3       01/03/25       ADD NO.4         ADD NO.4       ADD NO.4         Job No.:       1260         Drawn By:       DM         Checked By:       Checker         Issue:       ISSUE FOR BID         Date:       11/21/2024         Scale:       As indicated
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Stamp: Stamp:
Stamp: Stamp:
Stamp: Stamp:

ΠΓ 012 4 8

![](_page_51_Figure_0.jpeg)

CONSTRUCT NEW T-HANGAR AND TAXILANE 45 FLIGHT LINE DRIVE, AUBURN, ME 04210
Client:
Auburn-Lewiston Municipal Airport
80 Airport Drive Auburn, ME
t. 207 786 0631
53 Regional Drive Concord, NH 03301
Fennick McCredie Architecture
Team:
Architect: Fennick McCredie Architecture 70 Franklin Street
Boston, Ma 02110 t. 617.350.7900
Structural/MEP Engineer: McFarland Johnson
49 Court St, Suite 240 Binghamton, NY 13901 t. 607.723.9421
Civil Engineer:
49 Court St, Suite 240 Binghamton, NY 13901
t. 607.723.9421
Stamp:
otamp.
ISSUE FOR BID
No. Date Revision
3 01/03/25 ADD NO.4
Job No.: 1260 Drawn By: DM
Checked By: DMC Issue: ISSUE FOR BID
Date: 11/21/2024 Scale: 3" = 1'-0"
Drawing Title:
SECTION DETAILS
Drawing No.:
A-520

Project:

	G	ENERAL			W	/ALLS			
ROOM #	ROOM NAME	FLOOR	BASE	NORTH	SOUTH	EAST	WEST	CEILIING	REMARKS
TO CONC									
100	HANGAR A	CONCRETE SEALER						UNDERSIDE OF ROOF	
101	HANGAR B	CONCRETE SEALER						UNDERSIDE OF ROOF	
102	HANGAR C	CONCRETE SEALER						UNDERSIDE OF ROOF	
103	HANGAR D	CONCRETE SEALER						UNDERSIDE OF ROOF	
104	HANGAR E	CONCRETE SEALER						UNDERSIDE OF ROOF	
105	HANGAR F	CONCRETE SEALER						UNDERSIDE OF ROOF	
106	HANGAR G	CONCRETE SEALER						UNDERSIDE OF ROOF	
107	HANGAR H	CONCRETE SEALER						UNDERSIDE OF ROOF	
108		CONCRETE SEALER					-	UNDERSIDE OF ROOF	
109	HANGARJ	CONCRETE SEALER	$\bigvee$		$\bigvee$	$\searrow$	$\bigvee$	UNDERSIDE OF ROOF	$\bigvee$ $\bigvee$ $\bigvee$
110	UNIT K	CONCRETE SEALER	RB-1		EP-1			UNDERSIDE OF ROOF	
110A	UNIT KA	CONCRETE SEALER	RB-1	EP-1/FRP-1	EP-1	EP-1	EP-1	EP-1	ELEVATION B IS NORTH ELEVATION
111	RR	CONCRETE SEALER	RB-1	EP-1	EP-1	EP-1	EP-1	EP-1	
440	UNIT AA	CONCRETE SEALER						UNDERSIDE OF ROOF	

![](_page_52_Figure_1.jpeg)

## A-01

MATERIAL: ALUMINUM 80 MIL W/ CENTER HOLES. MOUNTING: MOUNTING SCREWS. LOCATION: JAMB SIDE OF DOOR. QUANTITY: (1) ONE

BASIS OF DESIGN: WWW.COMPLIANCESIGNS.COM "CUSTOM SIGN"

![](_page_52_Picture_5.jpeg)

A-02

MATERIAL: ALUMINUM 80 MIL W/ CENTER HOLES MOUNTING: MOUNTING SCREWS LOCATION: JAMB SIDE OF MAN DOOR WITHIN EACH BI-FOLD DOOR. QUANTITY: (7) SEVEN, ONE FOR EACH HANGAR, WITH NAMES TO COORDINATE WITH EACH HANGAR, TWO AT HANGAR A.

BASIS OF DESIGN: WWW.COMPLIANCESIGNS.COM "CUSTOM SIGN"

![](_page_52_Figure_9.jpeg)

## A-03

MATERIAL: ALUMINUM 80 MIL W/ CENTER HOLES. MOUNTING: MOUNTING SCREWS. LOCATION: JAMB SIDE OF DOOR. QUANTITY: (2) TWO, ONE FOR EACH STORAGE ROOM.

BASIS OF DESIGN: WWW.COMPLIANCESIGNS.COM "CUSTOM SIGN"

![](_page_52_Picture_13.jpeg)

# A-04

MATERIAL: ALUMINUM 80 MIL. MOUNTING: MOUNTING SCREWS, OR DOUBLE STICK TAPE LOCATION: ABOVE EACH FIRE EXTINGUISHER. QUANTITY: (8) EIGHT, ONE AT EACH FIRE EXTINGUISHER.

BASIS OF DESIGN: WWW.COMPLIANCESIGNS.COM "CUSTOM SIGN"

				DOOR 8	& FRAME S	SCHEDULE									
		Hardware					DOOR				FRAME				
MARK	ROOM	Group	NOTES	WIDTH	HEIGHT	THK	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD
100		1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED			
100A		2	HOLLOW METAL DOOR AND METAL FRAME	3' - 0"	7' - 0"	1 3/4"	F	GALV. HM	PNT	FR3	GALV. HM	PAINTED		1A	
101	HANGAR B	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
102	HANGAR C	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
103	HANGAR D	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
104	HANGAR E	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
105	HANGAR F	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
106	HANGAR G	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
107	HANGAR H	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
108	HANGAR I	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED	N/A	N/A	
109	HANGAR J	1	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	2"	А	GALV. HM	PNT	FR1	GALV. HM	PREFINISHED			
109A	HANGAR J	2	BIFOLD DOOR MOUNTED BY PRE-FAB BUILDING MANUFACTURER	3' - 0"	7' - 0"	1 3/4"	F	GALV. HM	PNT	FR1	GALV. HM	PAINTED	N/A	N/A	
110	UNIT K	3	SECTIONAL OVERHEAD DOOR	10' - 0"	12' - 0"	3 5/32"	OVHD	ALUM	PREFINISHED	FR4	GALV. HM	PREFINISHED			
110A	UNIT K	4	INSULATED PANEL AND THERMALLY BROKEN FRAME	2' - 6"	7' - 0"	1 3/4"	F-1	GALV. IM	PNT	FR2	GALV. HM	PAINTED	HM	1B	
111	RR	4	INSULATED PANEL AND THERMALLY BROKEN FRAME	3' - 0"	7' - 0"	1 3/4"	F-1	GALV. IM	PNT	FR2	GALV. HM	PAINTED	HM	1B	
112	UNIT AA	3	SECTIONAL OVERHEAD DOOR	10' - 0"	12' - 0"	3 5/32"	OVHD	ALUM	PREFINISHED	FR4	GALV. HM	PREFINISHED			

NOTE: FOR NUMBER OF BIFOLD AND OVERHEAD DOORS REFER TO CONSTRUCTION PLANS. FOR FURTHER DETAIL REFER TO SPECIFICATIONS

![](_page_52_Figure_20.jpeg)

Project:
IAXILANE
45 FLIGHT LINE DRIVE, AUBURN, MF 04210
Client:
Auburn-Lewiston
Municipal Airport
Auburn, ME
McFarland Johnson
53 Regional Drive Concord, NH 03301
McCredie
Architecture
Team:
Architect: Fennick McCredie Architecture
70 Franklin Street Boston, Ma 02110
t. 617.350.7900
Structural/IVIEP Engineer: McFarland Johnson
49 Court St, Suite 240 Binghamton, NY 13901
t. 607.723.9421
Civil Engineer: McFarland Johnson
49 Court St, Suite 240 Binghamton, NY 13901
t. 607.723.9421
Stamp <sup>.</sup>
etamp.
ISSUE FOR BID
No Date Revision
3 01/03/25 ADD NO.4
Job No.: 1260
Drawn By: DM Checked By: DMC
Issue: ISSUE FOR BID
Date: 11/21/2024
Scale: As indicated
DOOR & SIGNAGE
Drawing No.:
V 603

![](_page_53_Figure_0.jpeg)

## <u>GENERAL NOTE:</u> MANUFACTURERS LISTED ON THIS SHEET ARE FOR BASIS OF DESIGN PURPOSES. SIMILAR PRODUCTS ARE TO BE SUBMITTED TO ENGINEER FOR APPROVAL.

WA	WATER CLOSET SCHEDULE													
GENERAL BOWL SEAT UNIT CONNECTIONS														
TAG	MOUNTING	ACCESS DESIGNATION	MANUFACTURER	MODEL	COLOR	MANUFACTURER	MODEL	COLOR	FLUSH VOLUME (GPF)	SUPPLY SIZE	DRAIN SIZE	VENT SIZE		
WC-1	FLOOR/TANK	ADA	KOHLER	K-3551	WHITE	BEMIS	3155SSC	WHITE	1.28	3/8""	3"	2"		

DOI	DOUBLE CHECK VALVE SCHEDULE											
GENERA	L			UNIT INFOR	MATION			ACCESSORIES	NOTES			
LABEL	LOCATION	TYPE	SERVICE	SIZE (IN)	MAX. PRESSURE RATING (PSI)	MANUFACTURER	MODEL NUMBER					
DCV-1	RESTROOM	DOUBLE CHECK VALVE ASSEMBLY	DOMESTIC WATER SERVICE	1"	175	WATTS	LF-007-QT					

DO	DOMESTIC WATER HEATER SCHEDULE												
GENERAL	-		UNIT PERFORM	ANCE			ELECTRIC	CAL REQUI	REMENTS	DESIGN BASIS			
LABEL	LOCATION	TYPE	HEAT SOURCE	OUTPUT TEMP. (DEG F)	RECOVERY RISE	GALLON CAPACITY	POWER WATTS	VOLTS	PHASE	MANUFACTURER	MODEL	NOTES	
DWH-1	DWH-1RESTROOM WALLCOMPACT TANKELECTRICITY120 DEGREES90 DEGREES106,0002401A.O. SMITHEJC-10												
DWH-1	RESTROOM WALL	COMPACT TANK	ELECTRICITY	120 DEGREES	90 DEGREES	10	6,000	240	1	A.O. SMITH	EJC-10		

	-		-				-							
GENERAL UNIT PERFORMANCE ELECTRICAL REQU								REMENTS	DESIGN BASIS					
LABEL	LOCATION	TYPE	HEAT SOURCE	OUTPUT TEMP. (DEG F)	RECOVERY RISE	GALLON CAPACITY	POWER WATTS	VOLTS	PHASE	MANUFACTURER	MODEL	NOTES		
DWH-1	RESTROOM WALL	COMPACT TANK	ELECTRICITY	120 DEGREES	90 DEGREES	10	6,000	240	1	A.O. SMITH	EJC-10			

PUN	PUMP SCHEDULE													
GENERAL				UNI	PERFOR	MANCE			_	UNIT INFORMATION				
LABEL	LOCATION	TYPE	SERVICE	FLOW (GPM)	HEAD (FT)	SPEED (RPM)	VOLTS	PHASE	Hz	MANUFACTURER	MODEL NUMBER	NOTES		
P-1	RESTROOM	IN-LINE	RECIRCULATION	1	10	3300	115	1	60	BELL & GOSSETT	NBF-22	1		
NOTES:														

RY ACCESSORIES										
CRIPTION	MANUFACTURER	MODEL	DRAIN SIZE	NOTES						
R CLEANOUT	WATTS	CO-1200-R	SEE PLANS, 4" MAX	1						
OR DRAIN	WATTS	FD-100-A7-6	3"							
E FLOOR CLEANO	UT UP TO 3" PIPE SI	ZE.								

# DOMESTIC WATER SUPPLY ACCESSORIES

				UNIT F	IANCE	NOTES						
N	ACCESS DESIGNATION	MANUFACTURER	MODEL NUMBER	CWS SIZE	HWS SIZE	PRESSURE RANGE (PSI)						
N	N/A	WATTS	PLT-5	3/4"	N/A	0-150						
ER	ER         N/A         NEPTUNE         T-10         1"         N/A         0-200         1											
SH	SHOULD BE COORDINATED WITH OWNER AND LOCAL TOWN WATER											

	DULE																			
BOWL			FAUCET		TRAP		SUPPLIES/STOPS		INSULATION/COVERS		TAILPIECE		UNIT CONNECTIONS				NOTES			
MATERIAL	MOUNTING	MANUFACTURER	MODEL	SIZE	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	CWS SIZE	HWS SIZE	DRAIN SIZE	VENT SIZE	MINIMUM SUPPLY PRESSURE (PSI)	
POLYMER RESIN	FLOOR	MUSTEE	63M	24"x24"x10"	MUSTEE	63.600A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1/2"	1/2"	3"	N/A	25	SEE ACCESSORY LIST BELOW

CH	HEDULE																					
					FAUCET		CARRIER		TRAP		SUPPLIES/STOPS		INSULATION/CO	VERS	TAILPIECE		UNIT C	ONNEC	TIONS			NOTES
IAL	MOUNTING	MANUFACTURER	MODEL	COLOR	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	MANUFACTURER	MODEL	CWS SIZE	HWS SIZE	DRAIN SIZE	VENT SIZE	MINIMUM SUPPLY PRESSURE (PSI)	
US A	WALL MOUNT	KOHLER	KINGSTON K-2005	WHITE	CHICAGO	420 POABCP	WATTS	CA-411	MCGUIRE	PW2150WCPRO	MCGUIRE	2165	MCGUIRE	PW2150WCPRO	MCGUIRE	PW2150WCPRO	N/A	1/2"	1-1/2"	1-1/4"	25	

Project:
Auburn-Lewiston
Municipal Airport
45 FLIGHT LINE DRIVE.
AUBURN, ME 04210
Client:
Auburn-Lewiston Airport
80 Airport Drive Auburn, ME t. 207 786 0631
McFarland Johnson
53 Regional Drive Concord, NH 03301
Fennick
Architect:
70 Franklin Street Boston, Ma 02110
Structural/MEP Engineer:
49 Court St, Suite 240 Binghamton, NY 13901
Civil Engineer:
49 Court St, Suite 240 Binghamton, NY 13901
1. 007.723.9421
Stamp:
ISSUE FOR BID
No. Date Revision 1 12/6/2024 Addendum 1
2 01/3/2025 Addendum 4
Job No.: 1260 Drawn By: CJZ
Checked By: MAE Issue: ISSUE FOR BID
Date:         11/21/2024           Scale:         -
Drawing Title: PI UMBING
SCHEDULES
Drawing No.:
P-001

![](_page_53_Picture_17.jpeg)

![](_page_54_Figure_0.jpeg)

![](_page_54_Picture_2.jpeg)

![](_page_54_Picture_3.jpeg)

## KEYED NOTES (#)

## 1. PROVIDE ELECTRIC HEATER (EH-1). DESIGN BASIS: QMARK LFK304F: 240/1, 3000 WATTS, 10,230 BTUH, 12.5 AMPS,20"x16"x4". UNIT TO COME WITH INTEGRAL THERMOSTAT. UNIT TO BE RECESSED.

2. PROVIDE ELECTRIC HEATER (EH-2). DESIGN BASIS: QMARK LFK151F: 1151, 1500 WATTS, 1,705 BTUH, 12.5 AMPS,20"x16"x4". UNIT TO COME WITH INTEGRAL THERMOSTAT. UNIT TO BE RECESSED.

3. PROVIDE EXHAUST FAN (EF-1). DESIGN BASIS: GREENHECK: SP-A250, 200 CFM, 0.5" ESP, 83 WATTS, INTEGRAL GRAVITY BACKDRAFT DAMPER. FAN TO BE CONTROLLED BY OCCUPANCY SENSOR. PROVIDE 8" GREENHECK WALL VENT. CAULK WATER TIGHT.

- 4. PROVIDE 3" SAN DROP AND 2" V UP.
- 5. PROVIDE 2" SAN UP TO L-1.

6. PROVIDE 3" TRAPPED SAN CONNECTION TO MOP SINK (MS-1).

7. PROVIDE 3" TRAPPED SAN AND 1/2" CWS CONNECTION TO FLOOR DRAIN. INSTALL PER DETAIL 2 & 3/P200.

8. PROVIDE 4" SAN UP TO FCO-1.

9. PROVIDE WATER CLOSET (WC-1). PROVIDE 1/2" CWS DROP IN WALL TO WC-1. PROVIDE 2" V UP ABOVE CEILING.

10. PROVIDE LAVATORY (L-1). PROVIDE 1/2" CWS AND (2) 3/4" HWS DROPS FROM CEILING TO FIXTURE. 1-1/2" SAN IN WALL AND 1-1/2" V UP IN WALL ABOVE CEILING. HWS TO PROVIDE CONTINUOUS CIRCULATED LOOP DOWN TO FIXTURE AND BACK UP.

11. PROVIDE MOP SINK (MS-1). PROVIDE 1/2" CWS & 1/2" HWS DOWN TO MS-1. PROVIDE 2" V UP IN WALL ABOVE CEILING.

12. PROVIDE DOMESNIC WATER HEATER (DWH-1). INSTALL PER DETAIL 4/P200.

(P-1). INSTALL PER DETAIL 5/P200. 14. PROVIDE 1/2" TRAP PRIMER (TP-1) IN WALL BELOW LAVATORY. SEE DETAIL 3/P200.

15. COORDINATE WITH SITE/CIVIL DRAWING C-015 FOR PLUMBING CONNECTIONS.

16. 1" CWS DOWN IN WALL.

17. 3" V UP THROUGH ROOF. CAULK/FLASH ROOF WATER TIGHT.

18. LABEL PIPE UPSTREAM UP WATER METER TO BE "NO TAP PIPE".

## **GENERAL NOTES**

19. 3/4" CWS UP TO CEILING HEIGHT.

1. ALL VENT PIPING TO BE ABOVE CEILING. 2. ALL DOMESTIC PIPING TO BE WITHIN WALL S WHERE ACCESSIBLE. ALL DOMESTIC PIPING ATTACHED TO CEILING TO BE GROUPED TOGETHER AND TIGHT TO CORNERS.

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![](_page_54_Picture_26.jpeg)

P-100

![](_page_54_Picture_29.jpeg)

![](_page_55_Figure_0.jpeg)

![](_page_55_Figure_11.jpeg)

![](_page_56_Picture_0.jpeg)

![](_page_56_Figure_1.jpeg)

![](_page_56_Figure_2.jpeg)

![](_page_56_Figure_3.jpeg)