RALEIGH COUNTY AIRPORT AUTHORITY
RALEIGH COUNTY, WEST VIRGINIA

RALEIGH COUNTY AIRPORT TERMINAL ADDITION

ADDENDUM #2

June 9, 2023

THRASHER PROJECT #T80-11006

TO WHOM IT MAY CONCERN:

A Pre-Bid Conference was held on Thursday, May 25, 2023, on the above-referenced project. The following are clarifications and responses to questions posed by contractors for the above reference project.

A. GENERAL

1. **BID DATE**: The Bid date is June 15, 2023, at 11:00 am at Raleigh County Memorial Airport Managers office located at 176 Airport Road, Beaver, WV 25813.
   a. Bids can be dropped off at the Raleigh County Memorial Airport in care of Bob Runion prior to bid date.
   b. Bids received after 11:00 am on June 15, 2023, will not be accepted, no exceptions.
   c. Bids will be opened publicly at 11:00 am.

B. SPECIFICATIONS

1. **ADD** 0187100 Door Hardware as attached to this addendum.
2. **ADD** the Construction Safety and Phasing Plan as attached to this addendum to the Contract Documents.

C. DRAWINGS

1. **REPLACE** C2.00 with C2.00R as attached to this addendum.

D. QUESTIONS AND RESPONSES

QUESTION

1. I don't see the % of bid bond required in the bid documents? Historically, some airport projects require 10%? Can you verify this please?

RESPONSE

The bid bond should be set at 10%.

QUESTION

2. What hardware sets are required for the storefront doors? None are given in the door schedule and the specifications aren't clear.

RESPONSE

See SPECIFICATIONS #1

QUESTION

3. Is there a budget range the owners are trying to work with for this project?

RESPONSE

Yes, however the full range can not be disclosed at this time. There is an anticipated minimum of $550/sf.

QUESTION

4. We have a heavy estimating schedule this week and early next week. Would you be against extending the bid date to Tuesday, June 20th?

RESPONSE

No, at this time the bid date cannot be extended.

QUESTION

5. Have the drawing been submitted to the West Virginia State Fire Marshals office for review?

RESPONSE

Yes, they have been submitted, but official response has not been received at this time.

QUESTION

6. Are B&O Taxes to be included in the bid? If yes, what percentage?

RESPONSE

B&O Taxes are not required.

QUESTION

7. Please confirm a building permit is not required?

RESPONSE

A building permit is required. This is the responsibility of the General Contractor. Contact the Raleigh County Code office at 304-255-9388.

QUESTION

8. How many calendar days for construction to be substantially complete?

RESPONSE

Refer to Clarification #2 as part of Addendum #1. A partial Notice to Proceed will be given to acquire long lead time items. Once the materials are onsite a full Notice to Proceed will be given with 150 calendar days to Substantial Completion.

E. CLARIFICATIONS

1. All proprietary specifications indicated on the drawings and/or the specifications are to be considered the "basis of design". Other products and manufacturers will be accepted provided that the product meet the basis of design performance requirements. As well as meet the requirements of Buy American.

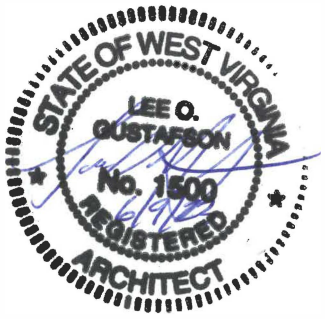
If you have any questions or comments, please feel free to contact me at your earliest convenience. **As a reminder, bids will be received until 11:00 a.m. on Thursday, June 15, 2023, at Raleigh County Memorial Airport Managers Office, located at 176 Airport Road, Beaver, WV**. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.

Marsha Benson

Marsha Benson
Project Manager



SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware for:

    a. Swinging doors.
    b. Sliding doors.
    c. Gates.

2. Electronic access control system components, including:

    a. Biometric access control reader.
    b. Electronic access control devices.

3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.
4. Lead-lining door hardware items required for radiation protection at door openings.
5. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

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

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

C. Related Sections:

1. Division 01 Section "Alternates" for alternates affecting this section.

2. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
3. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
4. Division 13 Section “Radiation Protection” for requirements for lead-lining for door hardware at openings indicated to receive radiation protection.
5. Division 26 sections for connections to electrical power system and for low-voltage wiring.
6. Division 28 sections for coordination with other components of electronic access control system.

1.3 REFERENCES

A. UL - Underwriters Laboratories

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

B. DHI - Door and Hardware Institute

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

C. ANSI - American National Standards Institute

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

1.4 SUBMITTALS

A. General:

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

B. Action Submittals:

1. Product Data: Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:

    a. Wiring Diagrams: For power, signal, and control wiring and including:
        1) Details of interface of electrified door hardware and building safety and security systems.
        2) Schematic diagram of systems that interface with electrified door hardware.
        3) Point-to-point wiring.
        4) Risers.

3. Samples for Verification: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.

    a. Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:

    a. Door Index; include door number, heading number, and Architects hardware set number.
    b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
    c. Type, style, function, size, and finish of each hardware item.
    d. Name and manufacturer of each item.
    e. Fastenings and other pertinent information.
    f. Location of each hardware set cross-referenced to indications on Drawings.
    g. Explanation of all abbreviations, symbols, and codes contained in schedule.
    h. Mounting locations for hardware.
    i. Door and frame sizes and materials.
    j. Name and phone number for local manufacturer's representative for each product.
    k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include how door will operate on egress, ingress, and fire and smoke alarm connection.
        1) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.

5. Key Schedule:

    a. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
    b. Use ANSI/BHMA A156.28 “Recommended Practices for Keying Systems” as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
    c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
    d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
    e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.
        1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

    f. Prepare key schedule by or under supervision of supplier, detailing Owner’s final keying instructions for locks.

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

C. Informational Submittals:

1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
2. Product Certificates for electrified door hardware, signed by manufacturer:

    a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.

3. Certificates of Compliance:

    a. Certificates of compliance for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
    b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in “QUALITY ASSURANCE” article, herein.
    c. Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in “QUALITY ASSURANCE” article, herein.

4. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by qualified testing agency, for door hardware on doors located in accessible routes.
5. Warranty: Special warranty specified in this Section.

D. Fire Door Assembly Inspection and Testing:

1. Submit a written report of the results of functional testing and inspection for fire door assemblies, in compliance with NFPA 80-2007 requirements. Written report shall be provided to the Owner to be made available to the Authority Having Jurisdiction (AHJ). Report shall include the door number for each fire door assembly, door location, door and frame material, fire rating, and summary of deficiencies.

E. Closeout Submittals:

1. Operations and Maintenance Data : Provide in accordance with Division 01 and include:

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

1.5 QUALITY ASSURANCE

A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified herein.

1. Where specific manufacturer’s product is named and accompanied by “No Substitute,” including make or model number or other designation, provide product specified. (Note: Certain products have been selected for their unique characteristics and particular project suitability.)

a. Where no additional products or manufacturers are listed in product category, requirements for “No Substitute” govern product selection.

2. Where products indicate “acceptable manufacturers” or “acceptable manufacturers and products”, provide product from specified manufacturers, subject to compliance with specified requirements and “Single Source Responsibility” requirements stated herein.

B. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.

1. Warehousing Facilities: In Project's vicinity.
2. Scheduling Responsibility: Preparation of door hardware and keying schedules.

3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
4. Coordination Responsibility: Coordinate installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.

    a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.

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

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

1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
2. Can provide installation and technical data to Architect and other related subcontractors.
3. Can inspect and verify components are in working order upon completion of installation.
4. Capable of producing wiring diagrams.
5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.

E. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

1. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.
2. Manufacturers that perform electrical modifications and that are listed by testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.

F. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.

G. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.

1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.

H. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.

I. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release latch. Locks do not require use of key, tool, or special knowledge for operation.

J. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.

1. Provide operating devices that do not require tight grasping, pinching, or twisting of wrist and that operate with force of not more than 5 lbf (22.2 N).
2. Maximum opening-force requirements:

    a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
    b. Sliding or Folding Doors: 5 lbf (22.2 N) applied parallel to door at latch.
    c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.

3. Bevel raised thresholds with slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
4. Adjust door closer sweep periods so that, from open position of 70 degrees, door will take at least 3 seconds to move to 3 inches (75 mm) from latch, measured to leading edge of door.

K. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01.

1. Attendees: Owner, Contractor, Architect, Installer and Supplier's Architectural Hardware Consultant.
2. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

    a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
    b. Preliminary key system schematic diagram.
    c. Requirements for key control system.
    d. Requirements for access control.
    e. Address for delivery of keys.

L. Coordination Conferences:

1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.

    a. Attendees: Door hardware supplier, door hardware installer, Contractor.
    b. After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.

2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

a. Attendees: electrified door hardware supplier, doors and frames supplier, electrified door hardware installer, electrical subcontractor, Owner, Architect and Contractor.
b. After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

1. Deliver each article of hardware in manufacturer's original packaging.

C. Project Conditions:

1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
2. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

D. Protection and Damage:

1. Promptly replace products damaged during shipping.
2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

E. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

F. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.7 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

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

E. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

F. Direct shipments not permitted, unless approved by Contractor.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Years from date of Substantial Completion, for durations indicated.

a. Closers:
1) Mechanical: 10 years. Electrified: 2 years.

b. Automatic Operators: 1 year.
c. Exit Devices:
1) Mechanical: 3 years.
2) Electrified: 1 year.

d. Locksets:
1) Mechanical: 3 years.
2) Electrified: 1 year.

e. Continuous Hinges: Lifetime warranty

2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.9 MAINTENANCE

A. Maintenance Tools:

1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and particular project suitability to insure continuity of existing and future performance and maintenance standards. After investigating available product offerings Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."

1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer " or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.

D. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.

E. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

A. Fasteners

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

B. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.

1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
2. Use materials which match materials of adjacent modified areas.
3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.

C. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 HINGES

A. Provide five-knuckle, ball bearing hinges.

1. Manufacturers and Products:

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

B. Requirements:

1. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:

a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high

2. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:

a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
b. Interior: Heavy weight, steel, 5 inches (127 mm) high

3. 2 inches or thicker doors:

a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
b. Interior: Heavy weight, steel, 5 inches (127 mm) high

4. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
5. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

a. Steel Hinges: Steel pins
b. Non-Ferrous Hinges: Stainless steel pins
c. Out-Swinging Exterior Doors: Non-removable pins
d. Out-Swinging Interior Lockable Doors: Non-removable pins

e. Interior Non-lockable Doors: Non-rising pins

7. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.
8. Doors 36 inches (914 mm) wide or less furnish hinges 4-1/2 inches (114 mm) high; doors greater than 36 inches (914 mm) wide furnish hinges 5 inches (127 mm) high, heavy weight or standard weight as specified.
9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component.
10. Provide mortar guard for each electrified hinge specified, unless specified in hollow metal frame specification.
11. Provide spring hinges where specified. Provide two spring hinges and one bearing hinge per door leaf for doors 90 inches (2286 mm) or less in height. Provide one additional bearing hinge for each 30 inches (762 mm) of additional door height.

2.4 CONTINUOUS HINGES

A. Aluminum Geared

1. Manufacturers:

a. Scheduled Manufacturer: Ives.
b. Acceptable Manufacturers: Markar, Stanley.

2. Requirements:

a. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.25, Grade 2.
b. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum, with 0.25-inch (6 mm) diameter Teflon coated stainless steel hinge pin.
c. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
d. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
e. On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
f. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware.
g. Install hinges with fasteners supplied by manufacturer.
h. Provide hinges with symmetrical hole pattern.

2.5 ELECTRIC POWER TRANSFER

A. Manufacturers:

   a. Scheduled Manufacturer: Von Duprin
   b. Acceptable Manufacturers: Falcon, ABH

B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.

C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.6 FLUSH BOLTS

A. Manufacturers:

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

B. Requirements:

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

2.7 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

   1. Scheduled Manufacturer and Product: Schlage ND Series
   2. Acceptable Manufacturers and Products: Sargent 11 Series, Corbin Russwin CL3100 Series.

B. Requirements:

   1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1. Cylinders: Refer to "KEYING" article, herein.
   2. Provide cylindrical locks with classroom security function with an inside indicator that provides clear direction for users to safely and quickly secure the room.

3. Provide locksets able to withstand 3100 inch pounds of torque applied to locked outside lever without gaining access per ANSI/BHMA A156.2 Abusive Locked Lever Torque Test and cycle tested to 3 million cycles per ANSI/BHMA A156.2 Cycle Test.
4. Provide levers with vandal resistant technology for use at heavy traffic or abusive applications. Levers feature internal lock components that prevent damage caused by excessive force from persons kicking, hitting or standing on lever to gain access.
5. Provide solid steel rotational stops to control excessive rotation of lever.
6. Provide completely refunctionable lockset that allows lock function to be changed to over twenty other common functions by swapping easily accessible parts.
7. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
8. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
9. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
10. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
11. Provide electrified options as scheduled in the hardware sets.
12. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.

    a. Lever Design: Schlage Rhodes.

2.8 MORTISE LOCKS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage L9000 series
2. Acceptable Manufacturers and Products: Corbin-Russwin ML2000 series, Best 35H series (3-piece latchbolt)

B. Requirements:

1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1 Operational, Grade 1 Security, and manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to “KEYING” article, herein.
2. Indicators: Where specified, provide indicator window measuring a minimum 2 inch x 1/2 inch with 180 degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.
3. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1 inch (25 mm) throw, constructed of stainless steel.
4. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
5. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide a request to exit (RX) switch that is actuated with rotation of inside lever.
6. Provide motor based electrified locksets with electrified options as scheduled in the hardware sets and comply with the following requirements:

a. Universal input voltage – single chassis accepts 12 or 24V DC to allow for changes in the field without changing lock chassis.
b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case
c. Low maximum current draw – maximum 0.4 amps to allow for multiple locks on a single power supply.
d. Low holding current – maximum 0.01 amps to produce minimal heat, eliminate "hot levers" in electrically locked applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
e. Request to Exit Switch (RX) –
   1) Modular Design – provide electrified locks capable of using, adding, or changing a modular RX switch without opening the lock case.
   2) Monitoring – where scheduled, provide a request to exit (RX) switch that detects rotation of the inside lever.

f. Connections – provide quick-connect Molex system standard.
g. UL Listed – 3 hour fire door

7. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.

   a. Lever Design: Schlage 06A.

2.9 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 99/33 series
2. Acceptable Manufacturers and Products: Detex Advantex series, Precision Apex series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1, and UL listed for Panic Exit or Fire Exit Hardware. Cylinders: Refer to "KEYING" article, herein.
2. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
3. Touchpad: Extend minimum of one half of door width. Match exit device finish, stainless steel for US26, US26D, US28, US32, and US32D finishes; and for all other finishes, provide compatible finish to exit device. Provide compression springs in devices, latches, and outside trims or controls; tension springs also acceptable.
4. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
5. Provide exit devices with manufacturer's approved strikes.
6. Provide exit devices cut to door width and height. Locate exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.

7. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
8. Provide cylinder dogging at non-fire-rated exit devices, unless specified less dogging.
9. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion that is removed by use of a keyed cylinder, which is self-locking when re-installed.
10. Where lever handles are specified as outside trim for exit devices, provide heavy-duty lever trims with forged or cast escutcheon plates. Provide vandal-resistant levers that will travel to 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.

    a. Lever Style: Match lever style of locksets.
    b. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

11. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.

    a. Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
    b. Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
    c. Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
    d. Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than 90 degree engagement with strike to prevent door and frame separation under high static load.
    e. Bottom Latchbolt: Minimum of 0.44 inch (11 mm) engagement with strike.
    f. Product Cycle Life: 1,000,000 cycles.
    g. Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
    h. Latch release does not require separate trigger mechanism.
    i. Cable and latching system characteristics:
        1) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
        2) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
        3) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
        4) Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.
        5) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.

6) Top latch mounting: double or single tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.

12. Provide UL labeled fire exit hardware for fire rated openings.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.

2.10 ELECTRIC STRIKES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 6000 series
2. Acceptable Manufacturers and Products: Folger Adam 300 series, HES 1006 series

B. Requirements:

1. Provide electric strikes designed for use with type of locks shown at each opening.
2. Provide electric strikes UL Listed as burglary-resistant.
3. Where required, provide electric strikes UL Listed for fire doors and frames.
4. Provide fail-secure type electric strikes, unless specified otherwise.
5. Coordinate voltage and provide transformers and rectifiers for each strike as required.

2.11 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage or Von Duprin PS900 series
2. Acceptable Manufacturers and Products: No Substitutions

B. Requirements:

1. Provide power supplies, recommended and approved by manufacturer of electrified locking component, for operation of electrified locks, electrified exit devices, magnetic locks, electric strikes, and other components requiring power supply.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply , and UL class 2 listed.
4. Options:

   a. Provide power supply, where specified, with internal capability of charging sealed backup batteries 24 VDC, in addition to operating DC load.
   b. Provide sealed batteries for battery back-up at each power supply where specified.
   c. Provide keyed power supply cabinet.

5. Provide power supply in an enclosure, complete, and requiring 120VAC to fused input.
6. Provide power supply with emergency release terminals, where specified, that allow release of all devices upon activation of fire alarm system complete with fire alarm input for initiating "no delay" exiting mode.

2.12 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer: Match Existing
2. Acceptable Manufacturers: Match Existing

B. Requirements:

1. Provide cylinders/cores, from the same manufacturer of locksets, compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.

    a. Security: dual-locking cylinder with **interchangeable** core requiring restricted, patented keyway.

3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent-protected.
4. Security Cylinders: Where indicated, provide cylinders/cores with "dual-locking mechanism" with interlocking finger pin(s) to check for patented features on keys.
5. Nickel silver bottom pins.
6. Temporary Construction Cylinder Keying.

    a. Owner or Owner's Representative will void operation of temporary construction keys.

7. Replaceable Construction Cores..

    a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
        1) 12 construction change (day) keys.

    b. Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2.13 KEYING

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

B. Requirements:

1. Key per the following:

   a. All Locks to be keyed into the owner existing Master Key System as directed by the owner.

2. Provide keys with the following features.

   a. Material: Solid nickel plated

3. Identification:

   a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication “Keying Systems and Nomenclature” for identification. Blind code marks shall not include actual key cuts.
   b. Identification stamping provisions must be approved by the Architect and Owner.
   c. Failure to comply with stamping requirements shall be cause for replacement of keys involved at no additional cost to Owner.
   d. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.

4. Quantity: Furnish in the following quantities.

   a. Change (Day) Keys: 3 per cylinder/core.
   b. Permanent Control Keys: 3.
   c. Master Keys: 6.
   d. Unused balance of key blanks shall be furnished to Owner with the cut keys.
   e. Extra Keys:
      1) **6** Construction Keys

2.14 KEY CONTROL SYSTEM

A. Manufacturers:

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

B. Requirements:

1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.

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

2.15 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4040XP series.
2. Acceptable Manufacturers and Products: Sargent 281 series, Corbin Russwin DC8200 series

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2 inch (38 mm) diameter with 3/4 inch (19 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.16 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4600 series.
2. Acceptable Manufacturers and Products: Norton 6000 series, Besam Power Swing.

B. Requirements:

1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.

3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
5. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check valve, sweep valve, latch valve to control door.
6. Provide drop plates, brackets, or adapters for arms as required for details.
7. Provide hard-wired actuator switches for operation as specified.
8. Provide weather-resistant actuators at exterior applications.
9. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
10. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.
11. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.17 DOOR TRIM

A. Manufacturers:

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

B. Requirements:

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

2.18 PROTECTION PLATES

A. Manufacturers:

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

B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:

    a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
    b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
    c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.19 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

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

B. Requirements:

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

2.20 DOOR STOPS AND HOLDERS

A. Manufacturers:

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

B. Provide door stops at each door leaf:

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

2.21 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

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

B. Requirements:

1. Provide thresholds, weatherstripping (including door sweeps, seals, astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Size of thresholds::

   a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width
   b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width

3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.22 SILENCERS

A. Manufacturers:

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

B. Requirements:

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

2.23 MAGNETIC HOLDERS

A. Manufacturers:

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

B. Requirements:

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

2.24 FINSHES

A. Finish: BHMA 626/652 (US26D); except:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Existing Door and Frame Compatibility: Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Where on-site modification of doors and frames is required:

1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
2. Field modify and prepare existing door and frame for new hardware being installed.
3. When modifications are exposed to view, use concealed fasteners, when possible.
4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:

a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
2. Custom Steel Doors and Frames: HMMA 831.
3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each hardware item in compliance with manufacturer’s instructions and recommendations, using only fasteners provided by manufacturer.

C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

H. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches (750 mm) of door height greater than 90 inches (2286 mm).

I. Lock Cylinders: Install construction cores to secure building and areas during construction period.

1. Replace construction cores with permanent cores as indicated in keying section.

J. Wiring: Coordinate with Division 26, ELECTRICAL sections for:

1. Conduit, junction boxes and wire pulls.
2. Connections to and from power supplies to electrified hardware.
3. Connections to fire/smoke alarm system and smoke evacuation system.
4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Testing and labeling wires with Architect's opening number.

K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Closers shall not be visible in corridors, lobbies and other public spaces unless approved by Architect.

M. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

1. Configuration: Provide least number of power supplies required to adequately serve doors with electrified door hardware.

O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

S. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 FIELD QUALITY CONTROL

A. Architectural Hardware Consultant: Engage qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.

1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 FIELD INSPECTIONS:

A. Fire Door Assembly Inspection and Testing: Provide functional testing and inspection of fire door assemblies in accordance with NFPA 80-2007/2010. Inspections shall be performed by individuals certified by Intertek as a Fire Door Assembly Inspector, using reporting forms provided by the Door and Hardware Institute (DHI). Alternatively, inspections may be performed by individuals acceptable to the Architect, who have knowledge and understanding of the operating components of the applicable door type, and who have experience in preparing written reports of testing and inspection results.

1. Schedule fire door assembly inspection within 90 days of Substantial Completion of the Project.
2. Submit a signed, written final report as specified in Paragraph 1.4: Submittals.
3. Contractor shall correct all deficiencies and schedule a reinspection of fire door assemblies which were noted as deficient on the inspection report.
4. Inspector shall reinspect fire door assemblies after repairs are made.
5. Additional reinspections which are required due to incomplete repairs will be performed by the inspector at the expense of the Contractor.

3.6 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 30 degrees.
2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.7 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.8 DEMONSTRATION

A. Provide training for Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

3.9 DOOR HARDWARE SCHEDULE

A. Locksets, exit devices, and other hardware items are referenced in the following hardware sets for series, type and function. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.

Hardware Sets:

92798 OPT0326971 Version 1

HARDWARE GROUP NO. 01

FOR USE ON DOOR #(S):
107B

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA		All Hardware by Door Supplier		

HARDWARE GROUP NO. 02

FOR USE ON DOOR #(S):
103

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	PRIVACY LOCK	L9040 06A L583-363 L283-722	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S PSA (PROVIDE SILENCERS @ NON-RATED DOOR)	BK	ZER

HARDWARE GROUP NO. 03

FOR USE ON DOOR #(S):
102

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	PRIVACY LOCK	L9040 06A L583-363 L283-722	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	GASKETING	488S PSA (PROVIDE SILENCERS @ NON-RATED DOOR)	BK	ZER

HARDWARE GROUP NO. 04

FOR USE ON DOOR #(S):
101

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	CDSI-3349A-EO	626	VON
1	EA	PANIC HARDWARE	CDSI-3349A-T-360T	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
2	EA	MORT. CYL. HOUSING	26-094 - CAM & BLOCKING RING AS REQUIRED.	626	SCH
3	EA	CONST FSIC CORE	23-030 ICX	622	SCH
3	EA	PERMANENT CORE	VERIFY & MATCH OWNERS EXISTING KEY SYSTEM.	626	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 12" STD	630-316	IVE
2	EA	OH STOP	100S	630	GLY
2	EA	SURFACE CLOSER	4040XP EDA SRI	689	LCN
2	EA	PA MOUNTING PLATE	4040XP-18PA SRI	689	LCN
2	EA	CUSH SHOE SUPPORT	4040XP-30 SRI	689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 SRI	689	LCN
1	EA	WEATHERSTRIP	INTEGRAL WEATHERSTRIP BY DOOR/FRAME MFGR.		B/O
2	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
2	EA	DOOR CONTACT	7764	628	SCE

HARDWARE GROUP NO. 05

FOR USE ON DOOR #(S):
106B

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	CDSI-33A-NL-OP-388	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	MORT. CYL. HOUSING	26-094 - CAM & BLOCKING RING AS REQUIRED.	626	SCH
2	EA	CONST FSIC CORE	23-030 ICX	622	SCH
2	EA	PERMANENT CORE	VERIFY & MATCH OWNERS EXISTING KEY SYSTEM.	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 12" STD	630-316	IVE
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA SRI	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA SRI	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI	689	LCN
1	EA	WEATHERSTRIP	INTEGRAL WEATHERSTRIP BY DOOR/FRAME MFGR.		B/O
1	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
1	EA	DOOR CONTACT	7764	628	SCE

HARDWARE GROUP NO. 06

FOR USE ON DOOR #(S):
107A

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224HD	628	IVE
1	EA	PANIC HARDWARE	CDSI-99-NL-OP-110MD	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	MORT. CYL. HOUSING	26-094 - CAM & BLOCKING RING AS REQUIRED.	626	SCH
2	EA	CONST FSIC CORE	23-030 ICX	622	SCH
2	EA	PERMANENT CORE	VERIFY & MATCH OWNERS EXISTING KEY SYSTEM.	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 12" STD	630-316	IVE
1	EA	SURFACE CLOSER	4040XP SCUSH SRI TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	429AA-S	AA	ZER
1	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
1	EA	DOOR CONTACT	679-05 WD/HM AS REQ'D	BLK	SCE

HARDWARE GROUP NO. 07

FOR USE ON DOOR #(S):
105 106A

PROVIDE EACH OPENING WITH THE FOLLOWING:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD RHO	626	SCH
1	EA	PERMANENT CORE	VERIFY & MATCH OWNERS EXISTING KEY SYSTEM.	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488S PSA (PROVIDE SILENCERS @ NON-RATED DOOR)	BK	ZER

End of Section

CONSTRUCTION SAFETY AND PHASING PLAN

FOR THE

RALEIGH COUNTYAIRPORT AUTHORITY
RALEIGH COUNTY MEMORIAL AIRPORT (BKW)
RALEIGH COUNTY, WEST VIRGINIA

TERMINAL ADDITION

MAY 2023

AIP PROJECT NO. 3-59-0001-PENDING (DESIGN/CONSTRUCION)
WVDMTF PROJECT NO. PENDING
THRASHER PROJECT NO. T80-11006

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Safety at airports is the primary consideration during construction and therefore this Construction Safety Phasing Plan (CSPP) will be critical during the duration of this Project. The CSPP has been written in compliance with Advisory Circular (AC)150/5370-2G, Operational Safety on Airports During Construction and serves as a supplement to the construction plans and specifications for the Terminal Addition at the Raleigh County Memorial Airport. This report will provide further detail into the phasing, scheduling and coordination that will be required by the Contractor to minimize impact to the airport.

Coordination

Pre-Bid Meeting

A Pre-Bid meeting will be scheduled following two public notices in the local paper that the project is out for bid. This meeting will allow the Contractors to see the site, ask questions specific to the project, and discuss security and safety requirements of working at an airport.

Pre-Construction Meeting

A Pre-construction meeting will be held prior to the issuance of notice to proceed. At a minimum, required attendees will include the sponsor, engineer, inspector, the awarded contractor, and any of their subcontractors. Discussion at the pre-construction meeting will also include the following: scope of project, owner's responsibilities, contractors' responsibilities, project representative responsibility, safety and security of airfield, project coordination, permitting, and access to site. In addition, all stakeholders contact information will be obtained and distributed.

Contractor Progress Meeting

During construction monthly progress meetings will be held with project stakeholders including but not limited to, sponsor, engineer, project representative, and contractor. Construction phasing and safety will be a standing agenda item for discussion at each meeting.

Change to CSPP

If during construction changes need to be made to the CSPP, the Contractor should contact the Engineer and Owner. Engineer and Owner will evaluate the proposed changes and direct the Contractor as necessary.

Phasing

Scope of Work

The Thrasher Group has been hired by the Raleigh County Airport Authority to design the Terminal Addition Project at the Raleigh County Memorial Airport.

The scope of the project includes the following:

- One story terminal addition
- Expanded secure area waiting room
- Secure area restrooms
- Expanded space for baggage
- Pilot lounge

The Terminal Addition project will allow the airport adequate space for departing passengers. By adding restrooms into this area will allow passengers to stay within the secure area and not have to navigate again through TSA for screening.

Sequence of Work

The proposed project will be constructed in four (4) phases to keep the passengers separated from construction activities while maintaining a secure area.

Phase 1 –The first phase of the Project will include construction and set up of the temporary barriers. During this time passengers will flow from TSA through the "old pilots lounge" into an exterior hallway to exterior doors to board the aircraft. The exterior hallway will have portable stanchions to provide a separation between passengers and the public areas.
Areas to be Closed to Aircraft Operations –No impact as part of this project.

Duration of Closures –Approximately 5 days

Construction Staging Areas – Staging area locations has been identified on the CSPP plan sheet.

Construction Access and Haul Routes – The contractor will access the Project area as indicated on the CSPP plans.

Lighting and Hazard Marking Changes – No impact as part of this project.

Phase 2 –The second phase of the Project will include construction of the addition. During this time passengers will follow the path created in Phase 1.
Areas to be Closed to Aircraft Operations –No impact as part of this project.

Duration of Closures –Approximately 115 days

Construction Staging Areas – Staging area locations has been identified on the CSPP plan sheet.

Construction Access and Haul Routes – The contractor will access the Project area as indicated on the CSPP plans.

Lighting and Hazard Marking Changes – No impact as part of this project.

Phase 3 –The third phase of construction will include the contractor creating a temporary barrier in the TSA area allowing for the construction at the transition between TSA and the new Waiting Area. Passengers will continue to egress as indicated in Phases 1&2.

Areas to be Closed to Aircraft Operations –No impact as part of this project.

Duration of Closures – Approximately 10 days

Construction Staging Areas – Staging area locations are identified on the CSPP plan sheet and are to remain outside of all object free areas and all safety areas.

Construction Access and Haul Routes – The contractor will access the Project area as indicated on the CSPP plans.

Lighting and Hazard Marking Changes – No impact as part of this project.

Phase 4 –The fourth phase of construction shift passengers through the new constructed addition while the interior renovations and restrooms are completed.

Areas to be Closed to Aircraft Operations –No impact as part of this project.

Duration of Closures – Approximately 20 days

Construction Staging Areas – Staging area locations are identified on the CSPP plan sheet and are to remain outside of all object free areas and all safety areas.

Construction Access and Haul Routes – The contractor will access the Project area as indicated on the CSPP plans.

Lighting and Hazard Marking Changes – No impact as part of this project.

Areas and Operations Affected by Construction Activity

The Construction Safety and Phasing Plan (CSPP) sheets depict the area that will be affected by construction activities along with proposed maintenance of traffic and safety for each phase.

Airport Operations will be responsible for inspecting the construction area is securely fenced off from passengers. In addition, daily inspections of interior secure walkway shall be inspected prior to passengers occupying the space.

NAVAIDs

Aircraft navigational aids (NAVAIDs) provide visual and electronic information that is used by pilots who operate and land at the airport. This project will not affect any NAVAID facilities located on the airfield. Should the scope of the project be modified that NAVAIDS are impacted, the Contractor shall notify the Airport/Engineer immediately. If there are any unplanned or accidental impacts to NAVAIDS, the contractor shall notify Airport Operations immediately followed by the Engineer. Construction activities and materials/equipment must not be stored in the vicinity of the NAVAIDS.

Contractor Access

Location of Stockpiled Construction Materials

Construction materials may be stored in the designated areas shown on the CSPP plans. Upon completion of the project the staging area shall be restored to original condition. If materials are placed next to an area that could be subject to prop wash, jet blast, or wind, materials then should be secured to prevent movement or becoming FOD.

Vehicle and Pedestrian Operations

No vehicles, except for concrete trucks and equipment shall be allowed inside the fence. The Contractor should park all vehicles in the airport's designated parking areas.

Access and Haul Roads

The contractor will enter the project area at the gate on the north side of the terminal building. Refer to CSPP plans for details.

Two-Way Radio Communication Procedures

Contractor is not required to carry a radio as they will not be working in any area associated with the movement of aircraft.

Airport Security

The airport is subject to 49 CRF Part 142, Airport Security and applies to all vehicle and pedestrian operations. Airport operator and contractor shall always maintain a secure airport. The contractor will not be provided access to the airport until the Contractor has received safety and security training from the Owner. The contractor will have access only thru one designated gate. The contractor shall cross thru the

gate and immediately close the gate to prevent unauthorized access. Gates shall not be left open at any time during construction.

Security or AOA badging is not required at this airport.

Wildlife Management

The contractor is responsible for controlling and continuously removing waste or loose materials that is generated during construction that may attract wildlife. This includes trash, standing water, and tall grass.

Trash
Food scraps must be collected from construction personnel activity. Site shall be cleaned and inspected daily for loose trash that should be collected and properly disposed of.

Standing Water
Wherever possible, the Contractor should avoid generating areas of standing water. As necessary, the Contractor shall provide temporary drainage to all standing water generated by construction operations.

Tall Grass
Tall grass and seeds represent another wildlife attractant on airfields. The contractor is responsible for maintaining its staging and parking areas free from all tall strands of grass.

In the event of a wildlife encounter (i.e.. Dog, fox, coyote, deer, etc.), the contractor shall immediately contact airport operations.

Foreign Object Debris Management

It is the responsibility of the contractor to maintain a clean project site free from the threat of foreign object debris (FOD). The contractor and its employees will be held responsible for maintaining the project area and keeping it free from FOD whether it is generated from the project site or other airfield areas.

The contractor will be required to continuously clear the project of any and all debris capable of being blown by wind onto active airfield areas. Any debris or dirt from the project site deposited on any airfield pavement shall be cleaned immediately by a motor driven sweeper or vacuum. Sweepers must be equipped with non-metallic bristles. A program of regular airfield pavement inspection shall be planned by the contractor and conducted with the Airport Operations staff.

Hazardous Materials Management

Any construction vehicles and equipment on the airport must be prepared to contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Contractor shall carry spill kits or equivalent during the duration of the project. Special care must also be taken when handling or transporting hazardous materials on airport property.

Notification of Construction Activities

List of Responsible Representatives
Persons who have questions concerning policies, procedures, or requirements of the Airport Security Program should contact Airport Operations. Persons who observe a security violation, suspicious act or any serious act that may endanger persons or property, should immediately contact Airport Operations. For this project a list of contacts is listed below:

Emergency Phone Number (fire/police/rescue) 911
Airport Contact: Airport Manager: Bob Runnion – Office: (304)-255-0476

Responsible Engineer: Chad Biller – The Thrasher Group – Cell: (304)-288-0450

As mentioned in Section "Coordination", a contact list will be gathered during the pre-construction meeting and distributed to all parties. The list shall include all emergency contacts and be provided to all appropriate personnel on the project site incase an emergency arises. If there are any personnel changes during the project revised contact information should be distributed to all parties.

NOTAMS
The airport manager must be notified 48 hours prior to the Contractor erecting a crane InSite so the airport can make sure NOTAM notices can be issued. Only the airport operator can initiate or cancel NOTAM on the airfield.

Emergency Notification Procedures
In the case of a life-threatening situation, dial 911 and then contact the airport. The Airport will help coordinate with any emergency response.

Notification to the FAA
Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment, cranes and proposed parking areas.

Inspection Requirements

Contractor must conduct daily inspections to the project areas to ensure compliance with the CSPP. In addition, the onsite project representative will also conduct daily inspections to make sure the CSPP is being followed. The engineer and airport operator will be onsite to conduct final inspection (punch list) to ensure the project was completed per plans and specs.

Underground Utilities

Excavation is anticipated with this project. Therefore, the contractor must notify the one-call system of the intended excavation or demolition not less than forty-eight (48) hours, excluding Saturdays, Sundays and legal federal or state holidays, nor more than ten (10) workdays prior to the beginning of such work. If a utility is impacted during construction, immediate action shall be taken by the Contractor to restore the utility.

Penalties

If during the project the Contractor fails to adhere to the requirements of the CSPP, there may be consequences that puts the health and safety of persons at risk on or near the construction site. The airport operator reserves the rights to deduct fines from money to the contractor, suspension of construction, and/or removal from the job site.

Special Conditions

Special conditions that require safety mitigation include low visibility, snow removal, aircraft in distress, aircraft accident, security breach, or work being completed by other may require the rescheduling of Project work to accomplish air safety. During these events the contractor would be required to stop all work and vacate the construction area.

Runway & Taxiway Visual Aids – Marking, Lighting, Signs and Visual NAVAIDs

Airport markings, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive and shall be in compliance with AC 150/5340-1. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, and other wind currents and constructed of

materials that will minimize damage to an aircraft in the event of inadvertent contact. Items used to secure such markings must be of a color similar to the marking.

Due to the location of this project, there is no impact to runway or taxiway marking, lighting, signs, or visual NAVAIDs.

Marking and Signs for Access Roads

This project does not require marking or signs for access roads.

Hazard Markings and Lighting

Hazard marking, lighting and signing prevent pilots from entering areas closed to aircraft and prevent construction personnel from entering areas to open aircraft.

The project area is located inside of any active operating area of aircraft. Contractor will be responsible to provide a secure walkway from the terminal construction to existing sidewalk.

The contractor is responsible for having a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. Lighting should be checked daily for proper operation.

Work Zone Lighting for Nighttime Construction

No nighttime construction is anticipated with this project.

Protection of Runway and Taxiway Safety Areas

No work is to be conducted within the RSA or TSA while the runway or taxiways are open for aircraft operations.

Excavations

Open excavations and trenches at the construction site should be prominently marked by the Contractor with red or orange flags and lighted with red lights during times of low visibility or darkness.

Erosion Control

During construction soil erosion shall be maintained in accordance with WVDEP Stormwater permit guidelines, no hazardous ruts, humps, depressions shall be left onsite. Areas should be cleared and graded to a smooth condition so under dry conditions it can support ARFF equipment and snow equipment.

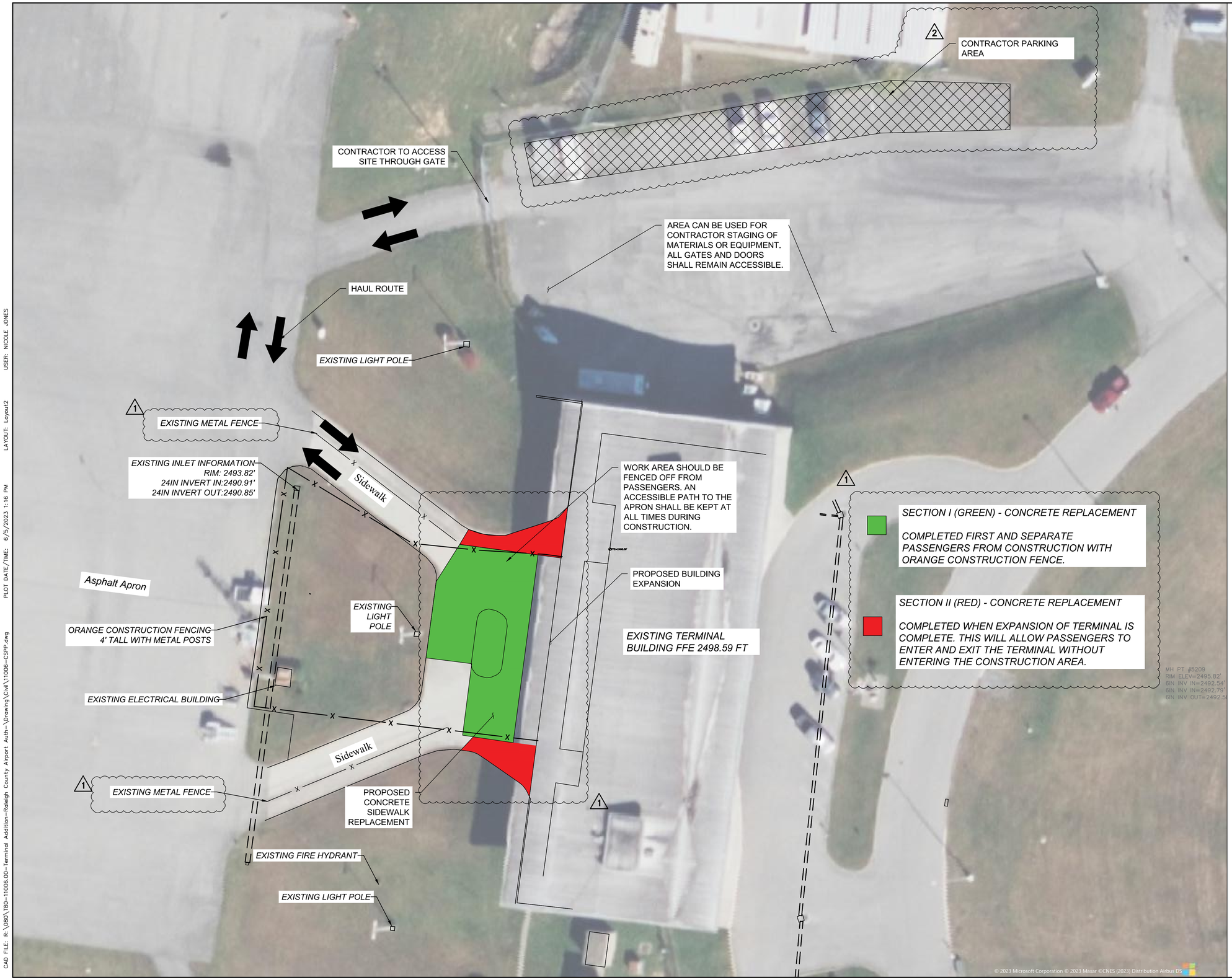
Runway Approach/Departure Areas and Clearways

All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces as shown on the CSPP.

Other Limitations on Construction

There shall be no use of tall equipment (cranes, concrete pumps) unless the proper permits have been issued for such equipment. There shall be no use of open flame welding or torches unless fire safety precautions are provided, and the airport operator has approved their use. There shall be no electrical blasting caps on or within 1,000 feet of airport property and the use of flare pots are prohibited within the AOA.

REPLACE: ADDENDUM 2
JUNE 9, 2023



MAGNETIC

20' 0 20' 40'

THRASHER
600 WHITE OAKS BLVD.
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BRIDGEPORT, WV 26330

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F (304) 624-7831

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NO.	BY	DATE	DESCRIPTION
3		6/06/2023	ADDED CONTRACTOR PARKING LOCATION
2	NMJ	5/30/2023	ADDED PHASING NOTES FOR CONCRETE CONSTRUCTION
1	NMJ		

RALEIGH COUNTY AIRPORT
TERMINAL ADDITION
RALEIGH COUNTY AIRPORT AUTHORITY
176 AIRPORT RD #105, BEAVER, WV 25813
MAY 15, 2023
CONSTRUCTION DOCUMENTS

DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:

PROJECT No.
T80-11006

CONSTRUCTION SAFETY PHASING PLAN

SHEET No.
C2.00R

CAD FILE: R:\080\T80-11006.00-Terminal Addition-Raleigh County Airport Auth-\Drawing\Civil\11006-CSPP.dwg LAYOUT: Layout2 USER: NICOLE JONES PLOT DATE/TIME: 6/5/2023 1:16 PM