

JUNE 2, 2022

# **ADDENDUM 02**

TO THE CONTRACT DOCUMENTS

#### **FOR**

BID #22-01 ACCESS CONTROL # DOOR HARDWARE UPGRADES @ VARIOUS DISTRICT SITE

#### **FOR THE**

MORONGO UNIFIED SCHOOL DISTRICT 5715 Utah Trail Twentynine Palms, CA 92277

Job No. 1-49-83

#### **NOTICE TO BIDDERS**

This Addendum forms a part of the Contract and modifies the original documents dated May 4, 2022. It is intended that all work affected by the following modifications shall conform with related provisions and general conditions of the contract of the original drawings and specifications. Modify the following items wherever appearing in any drawing or sections of the specifications. Acknowledge receipt of Addendum 02 in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

#### **GENERAL**

- Item No. 2.1 Reference Local Area Network Building Diagrams:
  - 2.1.1 Refer to the link below for the existing Local Area Network Building Diagrams at Yucca Valley High School, Twentynine Palms Junior High School, and La Contenta Middle School.

https://files.ruhnauclarke.com/public/756761

- Item No. 2.2 Reference Building IDF Locations:
  - 2.2.1 Refer to the link below for the existing Building IDF Locations at Twentynine Palms High School.

https://files.ruhnauclarke.com/public/756761

### CHANGES TO BIDDING AND PROCUMENT DOCUMENTS

- Item No. 2.3 Reference Bid Form:
  - 2.3.1 The Bid Form for this project has been revised. (See attached revised Bid Form.) You must use this revised bid form and acknowledge that you received all issued addendums for this project in the spaces provided on the form. Please note that the District reserves the right to award by school site or in total, (to a single vendor, or multiple vendors), whichever is the in the District's best interest. Awarding of bid will be in line with the district's approved budget for this project.

#### CHANGES TO THE SPECIFICATIONS

- Item No. 2.4 Reference Section 08 11 13 Hollow Metal Doors and Frames:
  - 2.4.1 Add Section 08 11 13 in its entirety.
- Item No. 2.5 Reference Section 08 14 16 Flush Wood Doors:
  - 2.5.1 Add Section 08 14 16 in its entirety.
- Item No. 2.6 Reference Section 08 71 00.01 Door Hardware Twentynine Palms High School:
  - 2.6.1 Remove Section 08 71 00.01 and replace it in its entirety with attached Section 08 71 00.01. Refer to changes in **Bold Underlined Texts** in attached Section 08 71 00.01.
- Item No. 2.7 Reference Section 08 71 00.02 Door Hardware Yucca Valley High School:
  - 2.7.1 Remove Section 08 71 00.02 and replace it in its entirety with attached Section 08 71 00.02. Refer to changes in **Bold Underlined Texts** in attached Section 08 71 00.02.
- Item No. 2.8 Reference Section 08 71 00.03 Door Hardware Twentynine Palms Junior High School:
  - 2.8.1 Remove Section 08 71 00.03 and replace it in its entirety with attached Section 08 71 00.03. Refer to changes in **Bold Underlined Texts** in attached Section 08 71 00.03.
- Item No. 2.9 Reference Section 08 71 00.04 Door Hardware La Contenta Middle School:
  - 2.9.1 Remove Section 08 71 00.04 and replace it in its entirety with attached Section 08 71 00.04. Refer to changes in **Bold Underlined Texts** in attached Section 08 71 00.04.

### **CHANGES TO THE DRAWINGS**

- Item No. 2.10 Reference Sheet T-1.0:
  - 2.10.1 Added WIFI access point legend to Architectural Symbol per clouded areas in attached Sheet T-1.0.
- Item No. 2.11 Reference Sheet A1.01:
  - 2.11.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.01.
    - a. Added WIFI access points to Building A and B.
    - b. Revised Building A and B Hardware Groups.
- Item No. 2.12 Reference Sheet A1.02:
  - 2.12.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.02.
    - a. Added WIFI access points to Building C and G.
    - b. Revised Building C and G Hardware Groups.
    - c. Revised Building G Doors G128, G130, and G131.
- Item No. 2.13 Reference Sheet A1.03:
  - 2.13.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.03.
    - a. Added WIFI access points to Building E and F.
    - b. Revised Building E and F Hardware Groups.
- Item No. 2.14 Reference Sheet A1.04:
  - 2.14.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.04.

- a. Added WIFI access points to Building H and J.
- b. Revised Building H and J Hardware Groups.
- c. Revised Building J Door J1093B.

#### Item No. 2.15 Reference Sheet A1.05:

- 2.15.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.05.
  - a. Added WIFI access points to Building K and M.
  - b. Revised Building K and M Hardware Groups.
  - c. Revised Building K Door K104B and K105A, and Building M Door 101A.

#### Item No. 2.16 Reference Sheet A1.06:

- 2.16.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.06.
  - a. Added WIFI access points to Building L and N.
  - b. Revised Building L and N Hardware Groups.
  - c. Revised Building L Door L104B and L105A, and Building N Door N106A and 109B.

### Item No. 2.17 Reference Sheet A1.07:

- 2.17.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.07.
  - a. Added WIFI access points to Building NA.
  - b. Revised Building NA Hardware Groups.

#### Item No. 2.18 Reference Sheet A1.08:

- 2.18.1 Revised floor plans and door schedules per clouded areas in attached Sheet A1.08.
  - a. Added WIFI access points to North and South Relos.
  - b. Revised South Relo Hardware Groups, Doors SR111 and SR112.

#### Item No. 2.19 Reference Sheet A2.01:

2.19.1 Added WIFI access points to Building A and B per clouded areas in attached Sheet A2.01.

#### Item No. 2.20 Reference Sheet A2.02:

- 2.20.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.02.
  - a. Added WIFI access points to Building C and X.
  - b. Revised Building C Hardware Groups.

#### Item No. 2.21 Reference Sheet A2.03:

2.21.1 Added WIFI access points to Building D and V per clouded areas in attached Sheet A2.03.

### Item No. 2.22 Reference Sheet A2.04:

2.22.1 Added WIFI access points to Building E and G per clouded areas in attached Sheet A2.04.

#### Item No. 2.23 Reference Sheet A2.05:

- 2.23.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.05.
  - a. Added WIFI access points to Building F.
  - b. Revised Building F Hardware Groups.

### Item No. 2.24 Reference Sheet A2.06:

- 2.24.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.06.
  - a. Added WIFI access points to Building H.
  - b. Revised Building H Hardware Groups.
  - c. Revised Building H Door H106B, H131, H132, H140, and H144.

#### Item No. 2.25 Reference Sheet A2.07:

- 2.25.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.07.
  - a. Added WIFI access points to Building J and K.

- b. Revised Building J Hardware Groups.
- Item No. 2.26 Reference Sheet A2.08:
  - 2.26.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.08.
    - a. Added WIFI access points to Building M and R.
    - b. Revised Building M Hardware Groups.
    - c. Revised Building M Door M102, M106, M112, and M113.
- Item No. 2.27 Reference Sheet A2.09:
  - 2.27.1 Added WIFI access points to Building N per clouded areas in attached Sheet A2.09.
- Item No. 2.28 Reference Sheet A2.10:
  - 2.28.1 Added WIFI access points to Building S and T per clouded areas in attached Sheet A2.10.
- Item No. 2.29 Reference Sheet A2.11:
  - 2.29.1 Added WIFI access points to Building U and W per clouded areas in attached Sheet A2.11.
- Item No. 2.30 Reference Sheet A2.12:
  - 2.30.1 Revised floor plans and door schedules per clouded areas in attached Sheet A2.12.
    - a. Added WIFI access points to Building Z and Relo 1.
    - b. Revised Building Y Hardware Groups and Panic Hardware.
- Item No. 2.31 Reference Sheet AS3.0:
  - 2.31.1 Added Building K and X to Site Plan per clouded areas in attached Sheet AS3.0.
- Item No. 2.32 Reference Sheet A3.01:
  - 2.32.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.01.
    - a. Added WIFI access points to Building A.
    - b. Revised Building A Hardware Groups and Door 112 Panic Hardware.
    - c. Revised Building A Door A102, 105, 107, and 115.
- Item No. 2.33 Reference Sheet A3.02:
  - 2.33.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.02.
    - a. Added WIFI access points to Building B and C.
    - b. Revised Building B and C Hardware Groups.
- Item No. 2.34 Reference Sheet A3.03:
  - 2.34.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.03.
    - a. Added WIFI access points to Building D and E.
    - b. Revised Building D and E Hardware Groups.
  - 2.34.2 Added Building X floor plan and door schedule.
- Item No. 2.35 Reference Sheet A3.04:
  - 2.35.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.04.
    - a. Added WIFI access points to Building F and J.
    - b. Revised Building F and J Hardware Groups.
    - c. Revised Building F Door F120.
- Item No. 2.36 Reference Sheet A3.05:
  - 2.36.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.05.
    - a. Added WIFI access points to Building G and I.
    - b. Revised Building G and I Hardware Groups.
- Item No. 2.37 Reference Sheet A3.06:

- 2.37.1 Revised floor plans and door schedules per clouded areas in attached Sheet A3.06.
  - a. Added WIFI access points to Relos.
  - b. Revised Relo Hardware Groups.
- 2.37.2 Added Building K floor plan and door schedule.
- Item No. 2.38 Reference Sheet A4.01:
  - 2.38.1 Revised floor plans and door schedules per clouded areas in attached Sheet A4.01.
    - a. Added WIFI access points to Building A and B.
    - b. Revised Building A and B Hardware Groups.
    - c. Revised Building B Door B121, B123, and B124.
- Item No. 2.39 Reference Sheet A4.02:
  - 2.39.1 Revised floor plans and door schedules per clouded areas in attached Sheet A4.02.
    - a. Added WIFI access points to Building C and H.
    - b. Revised Building C and H Hardware Groups.
    - c. Revised Building C Door C109, C112, and C113, and Building H Door H113, H114, and H118.
- Item No. 2.40 Reference Sheet A4.03:
  - 2.40.1 Revised floor plans and door schedules per clouded areas in attached Sheet A4.03.
    - a. Added WIFI access points to Building D and F.
    - b. Revised Building D and F Hardware Groups.
- Item No. 2.41 Reference Sheet A4.04:
  - 2.41.1 Revised floor plans and door schedules per clouded areas in attached Sheet A4.04.
    - a. Added WIFI access points to Building G and N.
    - b. Revised Building G and N Hardware Groups.
- Item No. 2.42 Reference Sheet A4.05:
  - 2.42.1 Revised floor plans and door schedules per clouded areas in attached Sheet A4.05.
    - a. Added WIFI access points to Building E and Relos.
    - b. Revised Building E and Relo Hardware Groups.
    - c. Revised Relo Door L103 and L106.

#### **ATTACHMENTS**

### **Bidding and Procurement Documents**

Bid Form

Specifications 08 11 13, 08 14 16, 08 71 00.01, 08 71 00.02, 08 71 00.03, 08 71 00.04

**Drawings** T-1.0, A1.01, A1.02, A1.03, A1.04, A1.05, A1.06, A1.07, A1.08, A2.01, A2.02, A2.03, A2.04,

A2.05, A2.06, A2.07, A2.08, A2.09, A2.10, A2.11, A2.12, AS3.0, A3.01, A3.02, A3.03, A3.04,

A3.05, A3.06, A4.01, A4.02, A4.03, A4.04, A4.05

### **END OF ADDENDUM 02**

Roger Clarke, Principal

# **BID FORM**

TO: Morongo Unified School District acting by and through its Governing Board, herein called the "DISTRICT":

Pursuant to and in compliance with your Notice to Contractors Calling for Bids and the other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the Contract, the local conditions affecting the performance of the Contract and the cost of the work at the place where the work is to be done, and with the Drawings and Specifications and other contract documents, hereby proposes and agrees to perform, within the time stipulated, the Contract, including all of its component parts, and everything required to be performed, and to provide and furnish any and all of the labor, materials, tools, expendable equipment, and all applicable taxes, utility and transportation services necessary to perform the Contract and complete in a workmanlike manner all of the work required in connection with:

# Bid #22-01

# Access Control and Door Hardware Upgrades at Various District Sites

	site or in total, (to a single vendor, or multiple vendors) ling of bid will be in line with the district's approved budge
	e all materials and labor for upgrades for door hardware and nified School District including all applicable taxes, permits and
Base price per school site as follows:	
a Contenta Middle School	\$
wentynine Palms JR High School	\$
wentynine Palms High School	\$
ucca Valley High School	\$
TOTAL LUMP SUM FOR ALL SITES IF AWARDED	TO ONE CONTRACTOR:
	\$

NOTE: If awarding of Bid is to one contractor for total lump sum for all (4) schools, awarding contractor will be required to provide a breakdown cost of each school site for accounting purposes, to be requested at time of project agreement request to Contractor after Notification of contract awarding.

# TIME TO COMPLETE PROJECT:

The work shall be commenced no sooner than **Friday**, **July 1**, **2022** and shall be completed prior to **Friday**, **June 30**, **2023**. **Notification of contract award shall be Tuesday**, **June 28**, **2022 INSURANCE CERTIFICATE**, **PURCHASE ORDER AND FULLY EXECUTED CONTRACT ARE REQUIRED BEFORE PROJECT CAN START**.

ACCOMPANYING THIS PROPOSAL IS		
Respectfully Submitted:		
Name of Contractor:		
Type of Organization:		
Signed By (Print Name):		
Signature:		
Date:		
Title of Signer:		
Address of Contractor:		
•		
Telephone Number:		
Contractor's License Number:		

# SECTION 081113 HOLLOW METAL DOORS AND FRAMES

#### 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. Standard and custom hollow metal doors and frames.
- 2. Steel sidelight, borrowed lite and transom frames.
- 3. Louvers installed in hollow metal doors.
- 4. Light frames and glazing installed in hollow metal doors.

#### B. Related Sections:

- 1. Division 01 Section "General Conditions".
- 2. Division 04 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction.
- 3. Division 08 Section "Flush Wood Doors".
- 4. Division 08 Section "Door Hardware".
- 5. Division 08 Section "Access Control Hardware".
- 6. Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames.
- C. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames.
  - 2. ANSI/SDI A250.4 Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing.
  - ANSI/SDI A250.6 Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames.
  - ANSI/SDI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
  - 5. ANSI/SDI A250.11 Recommended Erection Instructions for Steel Frames.
  - 6. ASTM A1008 Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 7. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 8. ASTM A924 Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 9. ASTM C 1363 Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.

- 10. ANSI/BHMA A156.115 - Hardware Preparation in Steel Doors and Frames.
- 11. ANSI/SDI 122 - Installation and Troubleshooting Guide for Standard Steel Doors and Frames.
- 12. ANSI/NFPA 80 - Standard for Fire Doors and Fire Windows; National Fire Protection Association.
- 13. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies.
- 14. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association.
- 15. UL 10C - Positive Pressure Fire Tests of Door Assemblies.
- 16. UL 1784 - Standard for Air Leakage Tests of Door Assemblies.

#### 1.3 **SUBMITTALS**

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, and finishes.
- В. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.
- C. Shop Drawings: Include the following:
  - 1. Elevations of each door design.
  - 2. Details of doors, including vertical and horizontal edge details and metal thicknesses.
  - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  - 4 Locations of reinforcement and preparations for hardware.
  - 5. Details of anchorages, joints, field splices, and connections.
  - Details of accessories. 6.
  - 7. Details of moldings, removable stops, and glazing.
  - 8. Details of conduit and preparations for power, signal, and control systems.

#### D. Samples for Verification:

1. Samples are only required by request of the architect and for manufacturers that are not current members of the Steel Door Institute.

#### 1.4 **QUALITY ASSURANCE**

- A. Source Limitations: Obtain hollow metal doors and frames through one source from a single manufacturer wherever possible.
- B. Quality Standard: In addition to requirements specified, furnish SDI-Certified manufacturer products that comply with ANSI/SDI A250.8, latest edition, "Recommended Specifications for Standard Steel Doors and Frames".
- C. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL10C (neutral pressure at 40" above sill) or UL 10C.
  - 1 Oversize Fire-Rated Door Assemblies Construction: For units exceeding sizes of tested assemblies, attach construction label certifying doors are built to standard construction requirements for tested and labeled fire rated door assemblies except for size.

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- 2. Temperature-Rise Limit: Where indicated and at vertical exit enclosures (stairwell openings) and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.
- 3. Smoke Control Door Assemblies: Comply with NFPA 105.
  - a. Smoke "S" Label: Doors to bear "S" label, and include smoke and draft control gasketing applied to frame and on meeting stiles of pair doors.
- D. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257. Provide labeled glazing material.
- E. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage. Do not use non-vented plastic.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch high wood blocking. Do not store in a manner that traps excess humidity.
  - 1. Provide minimum 1/4-inch space between each stacked door to permit air circulation. Door and frames to be stacked in a vertical upright position.

#### 1.6 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

### 1.7 COORDINATION

- A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.
- B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes. All technical disciplines are responsible for the product data integration and data reliability of their Work into the coordinated BIM applications.

#### 1.8 WARRANTY

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

B. Warranty includes installation and finishing that may be required due to repair or replacement of defective doors.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:
  - 1. CECO Door Products (C).
  - 2. Curries Company (CU).
  - 3. Security Metal Products (SMP).

#### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.
- C. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 38 percent.
- D. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

#### 2.3 HOLLOW METAL DOORS

- A. General: Provide 1-3/4 inch doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867.
- B. Exterior Doors: Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
  - 1. Design: Flush panel.
  - 2. Level/Model: Level 2 and Physical Performance Level B (Heavy Duty), Minimum 18 gauge (0.042-inch 1.0-mm) thick steel, Model 2.
  - 3. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet. Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door. Plastic or composite channel fillers are not acceptable.
  - 4. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped.

- 5. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- C. Interior Doors: Face sheets fabricated of commercial quality cold rolled steel that complies with ASTM A 1008/A 1008M. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
  - 1. Design: Flush panel.
  - 2. Core Construction: Manufacturer's standard kraft-paper honeycomb, or one-piece polystyrene core, securely bonded to both faces.
    - a. Fire Door Core: As required to provide fire-protection and temperature-rise ratings indicated.
  - 3. Level/Model: Level 2 and Physical Performance Level B (Heavy Duty), Minimum 18 gauge (0.042-inch 1.0-mm) thick steel, Model 2.
  - 4. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet.
  - 5. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped.
  - 6. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- D. Manufacturers Basis of Design:
  - 1. Curries Company (CU) Polystyrene Core 707 Series.

### 2.4 HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Thermal Break Frames: Subject to the same compliance standards and requirements as standard hollow metal frames. Tested for thermal performance in accordance with NFRC 102, and resistance to air infiltration in accordance with NFRC 400. Where indicated provide thermally broken frame profiles available for use in both masonry and drywall construction. Fabricate with 1/16" positive thermal break and integral vinyl weatherstripping.
- C. Exterior Frames: Fabricated of hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60.
  - 1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
  - 2. Manufacturers Basis of Design:
    - a. Curries Company (CU) M Series.
    - b. Curries Company (CU) Thermal Break TQ Series.
- D. Interior Frames: Fabricated from cold-rolled steel sheet that complies with ASTM A 1008/A 1008M.
  - 1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
  - 2. Manufacturers Basis of Design:

- a. Curries Company (CU) M Series.
- E. Fire rated frames: Fabricate frames in accordance with NFPA 80, listed and labeled by a qualified testing agency, for fire-protection ratings indicated.
- F. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

#### 2.5 FRAME ANCHORS

#### A. Jamb Anchors:

- 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, formed from A60 metallic coated material, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
- 2. Stud Wall Type: Designed to engage stud and not less than 0.042 inch thick.
- 3. Compression Type for Drywall Slip-on (Knock-Down) Frames: Adjustable compression anchors.
- B. Floor Anchors: Floor anchors to be provided at each jamb, formed from A60 metallic coated material, not less than 0.042 inches thick.
- C. Mortar Guards: Formed from same material as frames, not less than 0.016 inches thick.

#### 2.6 LIGHT OPENINGS AND GLAZING

- A. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints at fabricator's shop. Fixed and removable stops to allow multiple glazed lites each to be removed independently. Coordinate frame rabbet widths between fixed and removable stops with the type of glazing and installation indicated.
- B. Moldings for Glazed Lites in Doors and Loose Stops for Glazed Lites in Frames: Minimum 20 gauge thick, fabricated from same material as door face sheet in which they are installed.
- C. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch (16 mm) high unless otherwise indicated. Provide fixed frame moldings and stops on outside of exterior and on secure side of interior doors and frames.
- D. Preformed Metal Frames for Light Openings: Manufacturer's standard frame formed of 0.048-inch-thick, cold rolled steel sheet; with baked enamel or powder coated finish; and approved for use in doors of fire protection rating indicated. Match pre-finished door paint color where applicable.

#### 2.7 ACCESSORIES

- A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- B. Grout Guards: Formed from same material as frames, not less than 0.016 inches thick.

#### 2.8 FABRICATION

- A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. When shipping limitations so dictate, frames for large openings are to be fabricated in sections for splicing or splining in the field by others.
- B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.

#### C. Hollow Metal Doors:

- 1. Exterior Doors: Provide optional weep-hole openings in bottom of exterior doors to permit moisture to escape where specified.
- Glazed Lites: Factory cut openings in doors with applied trim or kits to fit. Factory install glazing where indicated.
- 3. Astragals: Provide overlapping astragals as noted in door hardware sets in Division 08 Section "Door Hardware" on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted.
- 4. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge strap for continuous hinges specified in hardware sets in Division 08 Section "Door Hardware".

#### D. Hollow Metal Frames:

- 1. Shipping Limitations: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
- 2. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
  - a. Welded frames are to be provided with two steel spreaders temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling. Spreader bars are for bracing only and are not to be used to size the frame opening.
- Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or
  joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by
  butt welding.
- 4. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 48-inches and wider with mortise butt type hinges at top hinge locations.
- 5. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge straps for continuous hinges specified in hardware sets in Division 08 Section "Door Hardware".
- 6. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security screws at exterior locations.
- 7. Mortar Guards: Provide guard boxes at back of hardware mortises in frames at all hinges and strike preps regardless of grouting requirements.
- 8. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
- 9. Jamb Anchors: Provide number and spacing of anchors as follows:
  - a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
    - 1) Two anchors per jamb up to 60 inches high.

- 2) Three anchors per jamb from 60 to 90 inches high.
- 3) Four anchors per jamb from 90 to 120 inches high.
- 4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.
- b. Stud Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
  - 1) Three anchors per jamb up to 60 inches high.
  - 2) Four anchors per jamb from 60 to 90 inches high.
  - 3) Five anchors per jamb from 90 to 96 inches high.
  - 4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
  - 5) Two anchors per head for frames above 42 inches wide and mounted in metal stud partitions.
- Door Silencers: Except on weatherstripped or gasketed doors, drill stops to receive door silencers. Silencers to be supplied by frame manufacturer regardless if specified in Division 08 Section "Door Hardware".
- 11. Bituminous Coating: Where frames are fully grouted with an approved Portland Cement based grout or mortar, coat inside of frame throat with a water based bituminous or asphaltic emulsion coating to a minimum thickness of 3 mils DFT, tested in accordance with UL 10C and applied to the frame under a 3rd party independent follow-up service procedure.
- E. Hardware Preparation: Factory prepare hollow metal work to receive template mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
  - 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
  - 2. Reinforce doors and frames to receive non-template, mortised and surface mounted door hardware.
  - 3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
  - Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

### 2.9 STEEL FINISHES

- A. Prime Finishes: Doors and frames to be cleaned, and chemically treated to insure maximum finish paint adhesion. Surfaces of the door and frame exposed to view to receive a factory applied coat of rust inhibiting shop primer.
  - Shop Primer: Manufacturer's standard, fast-curing, lead and chromate free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; and compatible with substrate and field-applied coatings.

# PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- В. General Contractor to verify the accuracy of dimensions given to the steel door and frame manufacturer for existing openings or existing frames (strike height, hinge spacing, hinge back set, etc.).
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 **PREPARATION**

- A. Remove welded in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- В. Prior to installation, adjust and securely brace welded hollow metal frames for square, level, twist, and plumb condition.
- C. Tolerances shall comply with SDI-117 "Manufacturing Tolerances Standard Steel Doors and Frames."
- D. Drill and tap doors and frames to receive non-template, mortised, and surface-mounted door hardware.

#### 3.3 **INSTALLATION**

- A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- В. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11 and NFPA 80 at fire rated openings.
  - 1. Set frames accurately in position, plumbed, leveled, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames properly set and secured, remove temporary braces, leaving surfaces smooth and undamaged. Shim as necessary to comply with installation tolerances.
  - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
  - 3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar.
  - 4. Grout Requirements: Do not grout head of frames unless reinforcing has been installed in head of frame. Do not grout vertical or horizontal closed mullion members.
- C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.
  - 1. Non-Fire-Rated Standard Steel Doors:
    - Jambs and Head: 1/8 inch plus or minus 1/16 inch. a.
    - b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
    - Between Bottom of Door and Top of Threshold: Maximum 3/8 inch. c.
    - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.
  - 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
- D. Field Glazing: Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.

#### 3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.
- В. Remove grout and other bonding material from hollow metal work immediately after installation.
- C. Prime-Coat and Painted Finish Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat, or painted finishes, and apply touchup of compatible air drying, rust-inhibitive primer, zinc rich primer (exterior and galvanized openings) or finish paint.

#### 3.5 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.

**END OF SECTION 081113** 

# SECTION 08 14 16 FLUSH WOOD DOORS

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Flush wood doors; flush configuration; fire rated and non-rated.

#### 1.02 RELATED REQUIREMENTS

- A. Section 08 11 13 Hollow Metal Doors and Frames.
- B. Section 08 71 00 Door Hardware.

#### 1.03 REFERENCE STANDARDS

- A. 16 CFR 1201 Safety Standard for Architectural Glazing Materials; current edition.
- B. ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
- C. NFPA 80 Standard for Fire Doors and Other Opening Protectives; 2019.
  - 1. Use 2016 as indicated in 2019 CBC Referenced Standards.
- D. NFPA 105 Standard for Smoke Door Assemblies and Other Opening Protectives; 2016.
- E. UL 10C Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
  - 1. Use 2009 as indicated in 2019 CBC Referenced Standards.
- F. UL 1784 Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.
  - 1. Use 2001 with revisions as indicated in 2019 CBC Referenced Standards.
- G. WDMA I.S. 1A Interior Architectural Wood Flush Doors; 2013.

#### 1.04 SUBMITTALS

- See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
  - 1. Include certification program label and fire rated doors.
- D. Samples: Submit two samples of door veneer, 12 by 12 inch in size illustrating wood grain, stain color, and sheen.
- E. Certificate: Submit labels and certificates required by quality assurance and quality control programs.
- F. Test Reports: Show compliance with specified requirements for the following:

- 1. Sound-retardant doors and frames; sealed panel tests are not acceptable.
- G. Manufacturer's Installation Instructions: Indicate special installation instructions.
- H. Specimen warranty.
- I. Warranty, executed in District's name.

### 1.05 QUALITY ASSURANCE

- A. Maintain one copy of the specified door quality standard on site for review during installation and finishing.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.
  - 1. Company with at least one project within the past 5 years with value of woodwork within 20 percent of cost of woodwork for this project.
  - 2. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.
- C. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer if stored more than one week. Break seal on site to permit ventilation.

#### 1.07 WARRANTY

- A. See Section 01 78 00 Closeout Submittals, for additional warranty requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

#### **PART 2 PRODUCTS**

### 2.01 MANUFACTURERS

- A. Wood Veneer Faced Doors:
  - 1. Eggers Industries: www.eggersindustries.com/#sle.
  - 2. Graham Wood Doors: www.grahamdoors.com/#sle.
  - 3. Marshfield-Algoma Door Systems, Inc.: www.marshfielddoors.com.
  - 4. Substitutions: See Section 01 60 00 Product Requirements.

## **2.02 DOORS**

A. Doors: Refer to drawings for locations and additional requirements.

- 1. Quality Level: Custom Grade, Standard Duty performance, in accordance with WDMA I.S. 1A.
- 2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
  - 1. Provide solid core doors at each location.
  - 2. Fire Rated Doors: Tested to 60 minutes and ratings as indicated on drawings in accordance with UL 10C Positive Pressure; Underwriters Laboratories Inc. (UL) or Intertek/Warnock Hersey (WHI) labeled without any visible seals when door is open.
    - a. Comply with CBC Section 716.5.1.
  - 3. Smoke and Draft Control Doors (Indicated as "S" on Drawings): In addition to required fire rating, provide door assemblies tested in accordance with 1 with maximum air leakage of 3.0 cfm per sq ft of door opening at 0.10 inch wg pressure at both ambient and elevated temperatures for "S" label; no additional gasketing or edge sealing allowed.
    - a. Comply with CBC Section 716.5.3.1.
  - 4. Wood veneer facing with factory transparent finish.

#### 2.03 DOOR AND PANEL CORES

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type staved lumber core (SLC), plies and faces as indicated.
- B. Fire-Rated Doors: Mineral core type, with fire resistant composite core (FD), plies and faces as indicated above; with core blocking as required to provide adequate anchorage of hardware without through-bolting.

#### 2.04 DOOR FACINGS

- A. Veneer Facing for Transparent Finish: Natural Birch, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with slip match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face; unless otherwise indicated.
  - 1. Vertical Edges: Any option allowed by quality standard for grade.
  - 2. "Running Match" each pair of doors and doors in close proximity to each other.
  - 3. "Pair Match" each pair of doors; "Set Match" pairs of doors within 10 feet of each other when doors are closed.
- B. Facing Adhesive: Type II water resistant.

#### 2.05 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Cores Constructed with stiles and rails:
  - 1. Provide solid blocks at lock edge and top of door for closer for hardware reinforcement.
- C. Glazed Openings: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings.
- D. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.

- E. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- F. Provide edge clearances in accordance with the quality standard specified.

#### 2.06 FACTORY FINISHING - WOOD VENEER DOORS

- A. Finish work in accordance with WDMA I.S. 1A for grade specified and as follows:
  - 1. Transparent:
    - a. System TR-6, Catalyzed Polyurethane.
    - b. Stain: As selected by Architect.
    - c. Sheen: Satin.
- B. Factory finish doors in accordance with approved sample.
- C. Seal door top edge with color sealer to match door facing.

#### 2.07 ACCESSORIES

- A. Hollow Metal Door Frames: As specified in Section 08 11 13.
- B. Glazed Openings: Comply with CBC Section 716.6.3 and Chapter 24.
  - Vision Panel: Factory installed.
    - a. Application: Provide at all new classroom, office, corridor and other teacher and staff occupied spaces.
    - b. Size (WxH): 6 by 32 inches, unless indicated otherwise on Drawings.
  - 2. Heat-Strengthened and Fully Tempered Glass: ASTM C1048.
  - 3. Fire-Protection-Rated Glass: Safety Certification, 16 CFR 1201, Category II.
    - a. Comply with CBC Section 716.6.
  - 4. Glazing: Single vision units, 1/4 inch thick glass.
  - 5. Tint: Clear.
- C. Glazing Stops: Wood with metal clips for rated doors, butted corners; prepared for countersink style tamper proof screws.
- D. Door Hardware: As specified in Section 08 71 00.

### PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

## 3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
  - 1. Install fire-rated doors in accordance with NFPA 80 requirements.
  - 2. Install smoke and draft control doors in accordance with NFPA 105 requirements.

- B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Field-Finished Doors: Trimming to fit is acceptable.
  - 1. Adjust width of non-rated doors by cutting equally on both jamb edges.
  - 2. Trim maximum of 3/4 inch off bottom edges.
  - 3. Trim fire-rated doors in strict compliance with fire rating limitations.
- D. Use machine tools to cut or drill for hardware.
- E. Coordinate installation of doors with installation of frames and hardware.
- F. Coordinate installation of glazing.

### 3.03 TOLERANCES

- A. Conform to specified quality standard for fit and clearance tolerances.
- B. Conform to specified quality standard for telegraphing, warp, and squareness.

#### 3.04 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

#### 3.05 SCHEDULE - SEE DRAWINGS

**END OF SECTION** 

# SECTION 08 71 00.01 DOOR HARDWARE – TWENTYNINE PALMS HIGH SCHOOL

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Electromechanical door hardware.
  - 3. Cylinders specified for doors in other sections.

#### C. Related Sections:

- 1. Division 08 Section "Hollow Metal Doors and Frames".
- 2. Division 08 Section "Flush Wood Doors".
- 3. Division 28 Section "Access Control Hardware Devices".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC International Building Code.
  - 3. NFPA 70 National Electrical Code.
  - 4. NFPA 80 Fire Doors and Windows.
  - 5. NFPA 101 Life Safety Code.
  - 6. NFPA 105 Installation of Smoke Door Assemblies.
  - 7. 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:
  - 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.

#### 1.3 **SUBMITTALS**

- Α. 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.
    - Explanation of abbreviations, symbols, and codes contained in schedule. e.
    - f. Mounting locations for door hardware.
    - Door and frame sizes and materials. g.
    - 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:
  - 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:
    - Elevation diagram of each unique access controlled opening showing location and a. 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. Proof of Compliance: (California located Projects): Provide a list of product(s) containing chemicals known to cause cancer or reproductive toxicity as defined by the Office of Environmental Health Hazard Assessment (OEHHA) under Proposition 65 (CA Code of Regulations, Title 27, Section 27001). The list includes the specific chemical(s), if the chemical will be exposed to consumers, the means of warning, and an illustration of the label.

#### F. Informational Submittals:

- 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- G. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout 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.
- 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. California Building Code: Provide hardware that complies with CBC Section 11B.
  - 1. All openings as a part of an accessible route shall comply with CBC Section 11B-404.
  - 2. The clear opening width for a door shall be 32" minimum. For a swinging door it shall be measured between the face of the door and the stop, with the door open 90 degrees. There shall be no projections into it below 34" and 4" maximum projections into it between 34" and 80" above the finish floor or ground. Door closers and stops shall be permitted to be 78" minimum above the finish floor or ground. CBC Section 11B-404.2.3.
  - 3. Operable hardware on accessible doors shall comply with CBC Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.
  - 4. Hardware (including panic hardware) shall not be provided with "nightlatch" function for any accessible doors or gates unless the following conditions are met:
    - a. Such hardware has a 'dogging' feature and is dogged during the time the facility is open.
    - b. All 'dogging' operation is performed only by employees as their job function (non-public use).
  - 5. The force for pushing or pulling open a door shall be in accordance with CBC Section 11B-404.2.9.
    - a. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
    - b. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with CBC Section 11B-309.4.
    - c. The 5 pound (22.2 N) maximum force shall be validated for the size of the door used. The Building Materials Listing of the California State Fire Marshal shall indicate that the door hardware meets the 5 pound (22.2 N) force and shall also list the largest door that can be used.
  - 6. Door closing speed shall comply with CBC Section 11B-404.2.8. Closers shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum. Spring hinges shall be adjusted so that the required time to move a door from an open position of 70 degrees to the closed position is 1.5 seconds minimum.
  - 7. Floor stops shall not be located in the path of travel and 4" maximum from walls.

- 8. Thresholds shall comply with CBC Section 11B-404.2.5.
- G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- H. 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.
- I. 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.
  - 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
- J. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.
- 1.5 DELIVERY, STORAGE, AND HANDLING
  - A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
  - B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
  - C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and prewired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

#### 1.7 WARRANTY

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

#### 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.

#### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

#### 2.2 HANGING DEVICES

- A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
  - 1. Manufacturers:
    - a. Pemko (PE).

### 2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
  - 1. Manufacturers:
    - a. Pemko (PE) EL-CEPT Series.
    - b. Securitron (SU) EL-CEPT Series.
- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring

harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

- 1. Provide one each of the following tools as part of the base bid contract:
  - a. McKinney (MK) Electrical Connecting Kit: QC-R001.
  - b. McKinney (MK) Connector Hand Tool: QC-R003.
- 2. Manufacturers:
  - a. McKinney (MK) QC-C Series.

#### 2.4 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
- C. 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: Match Facility Restricted Keyway.
- D. Security Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed security cylinders and keys able to be used together under the same facility master or grandmaster key system. Cylinders to be factory keyed.
  - 1. New security key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
  - 2. Manufacturers:
    - a. Sargent (SA) Degree DG2.
    - b. No Substitution.
- 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. Existing System: Field verify and key cylinders to match Owner's existing system.
- F. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Two (2)
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
- 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.

#### 2.5 APERIO WIRELESS ACCESS CONTROL

- A. Wireless Access Control Mortise Locks: Wireless technology ANSI/BHMA A156.13 Grade 1 mortise lockset with integrated card reader, deadbolt monitoring, and request-to-exit and door position switch signaling in one complete unit. Motor driven locking/unlocking control of the lever handle trim, 3/4" stainless steel latch, and optional 1" deadbolt with hardened inserts. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.
  - 1. Wireless access control lock interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
  - 2. <u>Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.</u>
  - 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
  - 4. Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless communication.
  - 5. <u>Lockdown capability with maximum 10 second response.</u>
  - 6. Patent pending credential cache to ensure offline access.
  - 7. Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.
  - Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA
    maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail
    safe or fail secure operation.
  - 9. Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.

- 10. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 11. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

#### 12. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 8200 Series.
- b. No Substitutions.
- B. Wireless Access Control Cylindrical Locks: Wireless technology ANSI/BHMA A156.2 Series 4000 Grade

  1 cylindrical lockset with integrated card reader and request-to-exit signaling in one complete unit.

  Separate DPS connects directly to lock electronics for door position (open/closed status) monitoring.

  Motor driven locking/unlocking control of the lever handle trim with 1/2" deadlocking stainless steel latch. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings.
  - Wireless access control cylindrical locks interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. Integrated reader supports HID® 125kHz proximity credentials; or ISO 14443 A/B and ISO 15693
    13.56 MHz contactless credentials: HID® iCLASS/iCLASS SE (full authentication, all formats),
    MIFARE Classic, DESFire EV1 (full authentication, all formats); or Near Field Communications
    (NFC); or HID® SIO enabled.
  - 4. Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless communication.
  - 5. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
  - 6. Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.
  - 7. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
  - 8. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

### 9. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 10 Line Series.
- b. No Substitutions
- C. Wireless Access Control Exit Hardware: Wireless technology ANSI/BHMA A156.3 Grade 1 rim and mortise exit device hardware with integrated card reader. Separate DPS connects directly to exit hardware electronics for door position (open/closed status) monitoring. Motor driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and

labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override trim.

- 1. Wireless access control exit hardware interfaces using local wireless connection between the electronic exit trim and a communication hub located directly above the door. Communication hub connected via RS-485 to a new or existing online electronic access control system platform.
- 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
- 3. Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.
- 4. Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless communication.
- 5. Lockdown capability with maximum 10 second response.
- Patent pending credential cache to ensure offline access. 6.
- 7. Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.
- 8. Outside lever rigid except when in "passage" mode, or valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of exit device latch without necessary electronic activation.
- 9. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

#### 10. **Manufacturers:**

- a. Sargent Manufacturing (SA) - IN100 - 80 Series.
- b. No Substitutions.

#### 2.6 INTEGRATED WIRED OUTPUT ACCESS CONTROL, MULTI-CLASS READER

#### 2.7 LOCK AND LATCH STRIKES

- Α. 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
  - 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- В. Standards: Comply with the following:

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

#### 2.8 DOOR STOPS AND HOLDERS

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

#### 2.9 ARCHITECTURAL SEALS

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

- 1. Pemko (PE).
- 2. Reese Enterprises, Inc. (RE).

#### 2.10 **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.

#### 2.11 **FINISHES**

- Α. 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.
- В. 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**

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

#### 3.3 **INSTALLATION**

Α. 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:
  - 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.
  - 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.
- B. Manufacturer's Abbreviations:
  - 1. SA SARGENT
  - 2. DJ Don-Jo
  - 3. OT Other

## **Hardware Sets**

## Set: 1.0

Doors: A102, A103, A104, A105, A106, A107, A108, A109, A110, B101, B102, B103, B104, B105, B108, C101, C102, C104, C105, C106, C108, C109, C110, C111, F101, F102, F104, F105, G102, G107, G108, G109, G110, G111, G112, G113, G119, G120, H101, H102, H103, H104, H105, H106, H108, H109, H110, H111, J1091A, J1091B, J1092A, J1092B, J1093A, J1093B, K100A, K103A, K104A, K107A, L100A, L103A, L104A, L107A, M100A, M100B, M100C, M100B, M100F, M100F, M100G, M100H, M100J, M100K, M100M, N109A, N112A, N114A, N115B, N116A, N116B,

# N117A, NA112A, NA113A, NA119A, NA128A, NA129A

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 2.0

Doors: <u>A101</u>, C107, E101, E102, E103, E106, E107, E108, F106, <u>F107</u>, G101, <u>G104</u>, G114, <u>K101A</u>, <u>K102A</u>, L101A, <u>L102A</u>, N110A, N111A, N113A, NR101, NR102, NR103, SR101, SR102, SR103, SR104, SR105, SR106, SR113, <u>SR114</u>, <u>SR115</u>, SR120

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Set: 3.0

Doors: NA100A

2 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging - Furnished in 0281300 US32D SA

Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

#### Set: 4.0

<u>Doors: A111, A112, A113, A114, A116, J1091C, J1096A, J1096B, K103B, K107B, K108A, K108B, L103B, L107B, L108A, L108B, M102A, M102B, N104B, N112B, SR117, SR118</u>

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Access Control Upgrades @ Various Sites Morongo Unified School District No. 1-49-83

	Set: 5.0					
<u>Doors: N114B, N115C</u>	<u></u>					
- 1 Miran Blata	As Doggins		D.			
1 Wrap Plate	As Required IN100-10G77-BIPS LL SPAR 04416 ( No		DJ			
1 Access Control Cyl Lock, Aperio, No Key		US26D	<u>SA</u>	<i>\$</i> _		
Notes: During off hours door closed and loundocks door. Door to be scheduled open of				ntaril <u>y</u>		
Replace door or patch and recertify as req	uired for fire ratings					
	Set: 6.0					
Doors: A115, A117, B110, G117, G118, G12 SR119	21, G122, G123, G124, G125, G126, G127, k	(109A, L1(	09A, N1	.07A, SR116,		
Access Control Cyl Lock, Aperio, Cyl,     Keyed	IN100-10G77-BIPS B LL LC - Furnished in 0281300	US26D	<u>SA</u>	<u>4</u>		
1 Wrap Plate	As Required		DJ			
1 Cylinder	DG1 C10-1 "0" bitted for facility keying	<u>US15</u>	<u>SA</u>			
Notes: During off hours door closed and lounlocks door. Door to be scheduled open of	<del>-</del>			ntarily		
Doors: N106A						
Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL LC - Furnished in 0281300	US26D	<u>SA</u>	\$		
1 Wrap Plate	As Required		DJ			
1 Cylinder	DG1 C10-1 "0" bitted for facility keying	<u>US15</u>	<u>SA</u>			
- Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.						
Replace door or patch and recertify as req	uired for rated openings					
<u>Set: 8.0</u>						
Doors: N105A						
Access Control Cyl Lock, Aperio, No Key	IN100-10G77-BIPS LL SPAR 04416 ( No Cylinder Override ) - Furnished in 0281300	<u>US26D</u>	<u>SA</u>	<u>4</u>		
Access Control Upgrades @ Various Sites				HARDWARE		

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Morongo Unified School District
No. 1-49-83

Addendum 02

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

#### Set: 9.0

Doors: F108, N109C, NA108A, NA109A

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1	Access Control Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL LC - Furnished in	US26D	C A	1
	<u>Keyed</u>	<u>0281300</u>	<u>U326D</u>	<u>SA</u>	<u>4</u> 2
1	Cylinder	DG1 C10-1 "0" bitted for facility keying	US15	SA	

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 10.0

Doors: M100L

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2	Access Control Rim Exit, Aperio, No Key	IN100-8878-BIPS B ETL 5CH 525 (No	HESSE	SA	1
<u> </u>		Hex/Cyl Dogging - Furnished in 0281300	<u>US32D</u> <u>SA</u>	<u>3A</u>	5/

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 11.0

Doors: N104A, N115A

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1 Access Control Dim Evit Anguin No Vov	IN100-8878-BIPS B ETL 5CH 525 (No	HC33D	CA	L
1 Access Control Rim Exit, Aperio, No Key	Hex/Cyl Dogging - Furnished in 0281300	<u>US32D</u>	<u>SA</u>	57

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 12.0

Doors: NA106A, SR109, SR110

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<u>1</u>	Access Control Mort Lock, Aperio, No Deadbolt, Keyed	IN100-82278 OL LC - Furnished in 0281300	<u>US32D</u>	<u>SA</u>	\$
<u>1</u>	<u>Indicator</u>	<u>185S-2</u>	<u>US32D</u>	<u>SA</u>	
<u>1</u>	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Access Control Upgrades @ Various Sites
Morongo Unified School District

DOOR HARDWARE 08 71 00.01 - 18

# Verify is SR109 and SR110 are single or multi stall toilets - if multi no indicator needed and schedule open

## Set: 13.0

<u>Doors: A118, A119, B109, C103, E104, E105, E109, F103, F109, G103, G106, G115, G116, G132, H107, J1094A, NA103A, NA105A, NA107A, NA111A, NA115A, NA116A, NA117A, NA118A, NA120A, NA121A, NA126A, NA130A, NA131A, SR107, SR108</u>

\_

	Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	116000		1
1	Deadholt Keved	0281300	<u>US32D</u>	<u>SA</u>	<u>5</u> 7

1 Mortise Cylinder DG1 63 41 "0" bitted for facility keying US32D SA

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

#### Set: 14.0

<u>Doors: B106, B107, B112, B113, B114, B116, F110, F111, F112, G105, NA114A, NA123A, NA123B, NA125A, NA128B, NA135A</u>

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Access Control Mort Lock, Aperio , No	IN100-82279-BIPS OL LC - Furnished in	US32D	C A	1
Deadbolt, No Key	0281300	<u>U33ZD</u>	<u>3A</u>	5/

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 15.0

Doors: M102C

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4	Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	US32D		1
1	Deadbolt, Keyed	0281300		<u>SA</u>	<del>5</del> Z
<u>1</u>	Mortise Cylinder	DG1 63 40 "0" bitted for facility keying	US32D	<u>SA</u>	

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 16.0

Doors: M102D

-

1	Access Control Mort Lock, Aperio , No	IN100-82279-BIPS OL LC - Furnished in	US32D	CΛ	L
±	Deadbolt, No Key	0281300	<u>U332D</u>	<u>3A</u>	5/

-

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily

Access Control Upgrades @ Various Sites
Morongo Unified School District

DOOR HARDWARE 08 71 00.01 - 19

# unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

#### Set: 17.0

Doors: N116C, N116D

	Access Control Mort Lock, Aperio, ,	IN100-82277-BIPS B OL LC - Furnished in	LICOOD		1
1	Deadbolt, No Key	0281300	US32D	<u>SA</u>	<u>47</u>

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 18.0

# Doors: B111, B115, M103A

Access Control Mort Lock, Aperio,	IN100-82276-BIPS B OL LC - Furnished in	US32D	C A	1
Deadbolt, Keyed	<u>0281300</u>	<u>U33ZD</u>	<u>SA</u>	<del>5</del> 7
1 Mortise Cylinder	DG1 63 40 "0" bitted for facility keying	US32D	<u>SA</u>	

Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

#### Set: 19.0

# Doors: M101A, SR111, SR112

Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	US32D	SA	1
Deadbolt, Keyed	<u>0281300</u>		<u>3A</u>	42
1 Mortise Cylinder	DG1 63 40 "0" bitted for facility keying	US32D	SA	

Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

#### Set: 20.0

# Doors: NA104A, NA122A

1	Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	US32D	CA	1
	Deadbolt, Keyed	0281300		<u>SA</u>	<del>5</del> Z
<u>1</u>	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	

Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

Access Control Upgrades @ Various Sites Morongo Unified School District

DOOR HARDWARE 08 71 00.01 - 20

# Set: 21.0

#### Doors: N106B

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	Access Control Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL LC - Furnished in	US26D	C A	1
	<u>Keyed</u>	<u>0281300</u>	<u>U326D</u>	<u>SA</u>	57
<u>1</u>	Cylinder	DG1 C10-1 "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	

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Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

Verify condition of existing hardware, replace as needed. New fire door recommended.

Set: 22.0

<u>Doors: G129, K106A, L106A</u> Description: Staff Toilet

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<u>1</u>	Access Control Mort Lock, Aperio,	IN100-82276-BIPS B OL LC - Furnished in	US32D	<u>SA</u>	\$
	Deadbolt, Keyed	0281300	<u>U532D</u>		
1	<u>Indicator</u>	<u>185S-2</u>	US32D	<u>SA</u>	
<u>1</u>	Mortise Cylinder	DG1 63 40 "0" bitted for facility keying	US32D	<u>SA</u>	

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Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

Set: 23.0

**Doors: MISC** 

**Description: Aperio Hubs** 

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<u>Hub</u>	AH40IN2 - Furnished in 0281300	<u>SA</u>	4
USB Radio Dongle	APD-10-USB - Furnished in 0281300	SA	

-

Notes: Provide the appropriate amount of hubs for proper functionality of the system.

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# **END OF SECTION**

# SECTION 08 71 00.02 DOOR HARDWARE – YUCCA VALLEY HIGH SCHOOL

#### PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- 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:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Flush Wood Doors".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC International Building Code.
  - 3. NFPA 70 National Electrical Code.
  - 4. NFPA 80 Fire Doors and Windows.
  - 5. NFPA 101 Life Safety Code.
  - 6. NFPA 105 Installation of Smoke Door Assemblies.
  - 7. 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:
  - 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.

#### 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. 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.
- D. Proof of Compliance: (California located Projects): Provide a list of product(s) containing chemicals known to cause cancer or reproductive toxicity as defined by the Office of Environmental Health Hazard Assessment (OEHHA) under Proposition 65 (CA Code of Regulations, Title 27, Section 27001). The list includes the specific chemical(s), if the chemical will be exposed to consumers, the means of warning, and an illustration of the label.
- 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 OUALITY 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.
- F. California Building Code: Provide hardware that complies with CBC Section 11B.
  - 1. All openings as a part of an accessible route shall comply with CBC Section 11B-404.
  - 2. The clear opening width for a door shall be 32" minimum. For a swinging door it shall be measured between the face of the door and the stop, with the door open 90 degrees. There shall be no projections into it below 34" and 4" maximum projections into it between 34" and 80" above the finish floor or ground. Door closers and stops shall be permitted to be 78" minimum above the finish floor or ground. CBC Section 11B-404.2.3.
  - 3. Operable hardware on accessible doors shall comply with CBC Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or

ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

- 4. Hardware (including panic hardware) shall not be provided with "nightlatch" function for any accessible doors or gates unless the following conditions are met:
  - a. Such hardware has a 'dogging' feature and is dogged during the time the facility is open.
  - b. All 'dogging' operation is performed only by employees as their job function (non-public use).
- 5. The force for pushing or pulling open a door shall be in accordance with CBC Section 11B-404.2.9.
  - a. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
  - b. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with CBC Section 11B-309.4.
  - c. The 5 pound (22.2 N) maximum force shall be validated for the size of the door used. The Building Materials Listing of the California State Fire Marshal shall indicate that the door hardware meets the 5 pound (22.2 N) force and shall also list the largest door that can be used.
- 6. Door closing speed shall comply with CBC Section 11B-404.2.8. Closers shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum. Spring hinges shall be adjusted so that the required time to move a door from an open position of 70 degrees to the closed position is 1.5 seconds minimum.
- 7. Floor stops shall not be located in the path of travel and 4" maximum from walls.
- 8. Thresholds shall comply with CBC Section 11B-404.2.5.
- G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- H. 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.
- I. 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.

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

# 1.5 DELIVERY, STORAGE, AND HANDLING

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

# 1.6 COORDINATION

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

# 1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract

Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
  - 1. Ten years for mortise locks and latches.
  - 2. Ten years for extra heavy duty cylindrical (bored) locks and latches.
  - 3. Five years for exit hardware.
  - 4. Twenty five years for manual overhead door closer bodies.

#### 1.8 MAINTENANCE SERVICE

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

#### PART 2 - PRODUCTS

# 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution

Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

#### 2.2 HANGING DEVICES

- Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as A. specified in the Door Hardware Sets.
  - 1. Quantity: Provide the following hinge quantity:
    - 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.
    - Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified. b.
  - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
    - Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges a. 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:
    - Non-removable Pins: With the exception of electric through wire hinges, provide set a. 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. Manufacturers:
    - Bommer Industries (BO). a.
    - McKinney (MK).
- В. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
  - 1. Manufacturers:
    - a. Pemko (PE).

- C. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 certified pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed stainless pin, and twin self-lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.
  - 1. Manufacturers:
    - a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR).
    - h. Pemko (PE).

#### 2.3 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
  - 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
  - 2. Furnish dust proof strikes for bottom bolts.
  - Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for 3. windstorm components where applicable.
  - 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
  - 5. Manufacturers:
    - Burns Manufacturing (BU). a.
    - b. Door Controls International (DC).
    - c. Rockwood (RO).
- В. 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. Manufacturers:
    - Burns Manufacturing (BU). a.
    - b. Hiawatha, Inc. (HI).
    - c. Rockwood (RO).

#### 2.4 CYLINDERS AND KEYING

- Α. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- В. 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.
  - Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring. 2.
  - Bored or cylindrical lock cylinders with tailpieces as required to suit locks. 3.
  - 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: Match Facility Restricted Keyway.
- D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents.
  - 1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
  - 2.. Manufacturers:
    - Sargent (SA) Degree DG1. a.
    - h. No Substitution.
- 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. Existing System: Field verify and key cylinders to match Owner's existing system.
- F. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Two (2)
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
- G. Construction Keying: Provide construction master keyed cylinders.
- Н. 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.

#### 2.5 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.
  - Manufacturers:
    - a. Sargent Manufacturing (SA) 8200 Series.
    - b. No Substitution.
- B. Tubular Locksets, Grade 1 (Extra Heavy Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.
  - Locksets to withstand 3000 inch pounds of torque applied to the locked lever without gaining access.
  - 2. Locksets to fit a standard 2 1/8" bore without the use of through-bolts.
  - 3. Lever handles to be made of solid material with no plastic fillers.
  - 4. Latchbolt head to be one-piece stainless steel construction encased within the lock body.
  - 5. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA A156.2 requirements to 34 million cycles.
  - 6. Furnish with standard 2 3/4" backset and 1/2" throw latchbolt (3/4" at rated paired openings).
  - 7. Manufacturers:
    - a. Sargent Manufacturing (SA) 11 Line.

# 2.6 APERIO WIRELESS ACCESS CONTROL

- A. Wireless Access Control Mortise Locks: Wireless technology ANSI/BHMA A156.13 Grade 1 mortise lockset with integrated card reader, deadbolt monitoring, and request-to-exit and door position switch signaling in one complete unit. Motor driven locking/unlocking control of the lever handle trim, 3/4" stainless steel latch, and optional 1" deadbolt with hardened inserts. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.
  - 1. Wireless access control lock interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.

- 2. <u>Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.</u>
- 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
- 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
- 5. Lockdown capability with maximum 10 second response.
- 6. Patent pending credential cache to ensure offline access.
- 7. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
- 8. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
- 9. Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.
- 10. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 11. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

# 12. **Manufacturers:**

- a. <u>Sargent Manufacturing (SA) IN100 8200 Series.</u>
- b. **No Substitution**
- B. Wireless Access Control Cylindrical Locks: Wireless technology ANSI/BHMA A156.2 Series 4000 Grade

  1 cylindrical lockset with integrated card reader and request-to-exit signaling in one complete unit.

  Separate DPS connects directly to lock electronics for door position (open/closed status) monitoring.

  Motor driven locking/unlocking control of the lever handle trim with 1/2" deadlocking stainless steel latch. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings.
  - 1. Wireless access control cylindrical locks interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. Integrated reader supports HID® 125kHz proximity credentials; or ISO 14443 A/B and ISO 15693
    13.56 MHz contactless credentials: HID® iCLASS/iCLASS SE (full authentication, all formats),
    MIFARE Classic, DESFire EV1 (full authentication, all formats); or Near Field Communications
    (NFC); or HID® SIO enabled.
  - 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
  - 5. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>

- 6. <u>Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.</u>
- 7. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 8. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

# 9. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 10 Line Series.
- b. No Substitution.
- C. Wireless Access Control Exit Hardware: Wireless technology ANSI/BHMA A156.3 Grade 1 rim and mortise exit device hardware with integrated card reader. Separate DPS connects directly to exit hardware electronics for door position (open/closed status) monitoring. Motor driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override trim.
  - 1. Wireless access control exit hardware interfaces using local wireless connection between the electronic exit trim and a communication hub located directly above the door. Communication hub connected via RS-485 to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
  - 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
  - 5. Lockdown capability with maximum 10 second response.
  - 6. Patent pending credential cache to ensure offline access.
  - 7. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
  - 8. Outside lever rigid except when in "passage" mode, or valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of exit device latch without necessary electronic activation.
  - 9. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

# 10. Manufacturers:

- a. Sargent Manufacturing (SA) IN100 80 Series.
- b. **No Substitutions**

#### 2.7 INTEGRATED WIRED OUTPUT ACCESS CONTROL, MULTI-CLASS READER

#### 2.8 **AUXILIARY LOCKS**

- Α. Mortise Deadlocks, Large Case: ANSI/BHMA A156.13 Grade 1 Certified Products Directory (CPD) listed large case mortise type deadlocks constructed of heavy gauge wrought corrosion resistant steel. One piece stainless steel bolts with a 1" throw. Deadlocks to be products of the same source manufacturer and keyway as other locksets.
  - 1. Manufacturers:
    - Corbin Russwin Hardware (RU) ML2000 Series. a.
    - b. Sargent Manufacturing (SA) - 8200 Series.
    - c. Yale Commercial(YA) - 8800 Series.
- В. Cylindrical Deadlocks: ANSI/BHMA A156.36 Grade 1 Certified Products Directory (CPD) listed deadlocks to fit standard ANSI 161 preparation and 1 3/8" to 1 3/4" thickness doors. Provide tapered collars to resist vandalism and 1" throw solid steel bolt with hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other locksets.
  - 1. Manufacturers:
    - Arrow Locks (AW) D Series. a.
    - h. Corbin Russwin Hardware (RU) - DL3000 Series.
    - c. Sargent Manufacturing (SA) - 480 Series.
    - d. Yale Commercial(YA) - D100 Series.

#### 2.9 LOCK AND LATCH STRIKES

- Α. 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
  - 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.
  - 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. Manufacturers:
    - a. Sargent Manufacturing (SA) 80 Series.

#### 2.11 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
  - 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 nonhanded with full sized covers.
  - 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. Manufacturers:
    - a. Norton Rixson (NO) 7500 Series.
    - b. Sargent Manufacturing (SA) 351 Series.

## 2.12 DOOR STOPS AND HOLDERS

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

- a. Burns Manufacturing (BU).
- b. Hiawatha, Inc. (HI).
- c. Rockwood (RO).

# 2.13 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. Pemko (PE).
  - 2. Reese Enterprises, Inc. (RE).

#### 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:
  - 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.
  - 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
- 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.
- B. Manufacturer's Abbreviations:
  - 1. PE Pemko
  - 2. SU Securitron
  - 3. SA SARGENT
  - 4. DJ Don-Jo
  - 5. MK McKinney
  - 6. OT Other

# **Hardware Sets**

## Set: 1.0

Doors: A105, A131, B109B, B111A, B111B, C100B, C101A, C102A, C104D, D100A, D100B, D105B, E106A, E110A, E115A, E118A, H138, H143, H151, J106A, R102, R107, R108, R109, R112, S101, S107, S108, S109, S110, SB101, SB102, T101, T102, T113, T115, U102, V101, V107, V109, W101, W107, X101, X111

1 Access Control Rim Exit, Aperio, No Key

<u>5CH</u> IN100-8878-BIPS B ETL<u>525</u> (No Hex/Cyl Dogging ) - Furnished in 0281300 US32D

SA



Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

#### Set: 2.0

Doors: T103, T114

1 Access Control Rim Exit, Aperio, No Key 12 <u>5CH</u> IN100-8878-BIPS B ETL <u>525(No Hex/Cyl Dogging)</u> - Furnished in 0281300 US32D SA 4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

#### Wrap around plates as required - on rated doors replace or repair and recertify as required

#### Set: 3.0

Doors: <u>F100A, F102A,</u> F103A, F106B, F107B, F107D, F109A, F110A, F111A, F112A, F114A, F115A, F116A, F118A, <u>F121A,</u> F123, G100A, G101A, G102A, G103A, G109A, G110A, G111A, G112A, M104, M105, M106, M107, N111A, N112A, N113A, N114A, N115A, RELO1, SR101, SR102, SR103, SR104

	Aperio Control Rim Exit, Keyed, APERIO,	<b><u>5CH</u></b> IN100-8877-BIPS B ETL LC <u><b>525</b></u> ( No	LICAAD CA		1
	KEYED	Hex/Cyl Dogging ) - Furnished in 0281300	US32D SA	SA	V
1	Rim Cylinder	DG1 63 34 "0" bitted for facility keying	US32D	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# M106: Repair Door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

## Set: 4.0

Doors: N110A, N200A, N207A, N208A, N209A, N210A, N211A, N212A, S103

1 FIRE Access Control Rim Exit, APERIO, KEYED	12 <u>5CH</u> IN100-8877-BIPS B ETL LC <u>525</u> (No Hex/Cyl Dogging ) - Furnished in 0281300	US32D	SA	4
1 Rim Cylinder	DG1 63 34 "0" bitted for facility keying	US32D	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

#### Set: 5.0

Doors: A114, B108A, B109A, C100A, C101B, C101C, C101D, C102B, C104A, C104B, C104C, D101A, D105D, D106A, D106B, D106C, E103A, E105B, F106A, H152, J102A, J106B, J110B, K101, K104, K105, K115, K120, M102, R101, R106, U101, V108, V110

1 Access Control Rim Exit, Aperio, No Key

**5CH** IN100-8878-BIPS B ETL **525** (No Hex/Cyl Dogging ) - Furnished in 0281300

US32D



Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 6.0

Doors: H100C

12 5CH IN100-8878-BIPS B ETL 525 (No

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging ) - Furnished in 0281300

US32D

SA



Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 7.0

Doors: B100A, B101A, B106A, B107A, B110A, C103A, F119A, H145, H146

Aperio Control Rim Exit, Keyed, APERIO,

5CH IN100-8877-BIPS B ETL LC 525 ( No

KEYED

Hex/Cyl Dogging ) - Furnished in 0281300

US32D

US32D

1 Rim Cylinder

DG1 63 34 "0" bitted for facility keying

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 8.0

Doors: U106

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in

US26D

1 Wrap-Around

0281300 As Required

OT

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily

**Access Control Upgrades @ Various Sites** Morongo Unified School District No. 1-49-83

DOOR HARDWARE 08 71 00.02 - 21 unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

## Set: 8.1

Doors: C108A, C111A, J104A, J108A, M101, M103

1	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u>	4
1	<u>Wrap Plate</u>	As Required		DJ	
1 9	<u>Cylinder</u>	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	

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Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 9.0

Doors: U103

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in US26D SA

0281300

1 Wrap-Around As Required OT

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 10.0

Doors: X106

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in US26D SA

0281300

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

#### Set: 11.0

Doors: A107, A108, A109, A115, A116, A124, A128, A130, B108B, D101B, F122A, F122B, H130A, H133, H134, H139, H153, H154, K106, K107, M108, M109, M110, M111, V102, V103, V104, V105

1 Wrap Plate As Required DJ

0281300

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in

US26D SA

4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. <u>Door to be scheduled as required by district during school hours.</u> Available for 5 second lock down.

## Wrap around plates as required - on rated doors replace or repair and recertify as required

# Set: 12.0

Doors: S105, S106, S111, S113

1 Wrap Plate As Required DJ

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key <u>Cylinder Override</u>) - Furnished in US26D SA 4

0281300

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled as required by district during school hours. Available for 5 second lock down.** 

# Wrap around plates as required - on rated doors replace or repair and recertify as required

# Set: 13.0

Doors: A101, A102, A103, A104, A110, A111, A112, A113, A117, A118, A119, A120, A121, A122, A123, A125, A126, A127, A129, B102A, B104A, C109A, C110A, D103A, D104A, E112A, F101A, F104A, F105A, F107A, F117A, F120A, G104A, G107A, G108A, H135, H136, H137, H141, H149, H150, J105A, K108, K109, K117, K119, T106, U104, W103, W104

	Access Control Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL - Furnished in	LICACD	C A	1
	Keyed	<u>0281300</u>	US26D	SA	V
1	Wrap Plate	As Required		DJ	
1	Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	US15	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. **Available for 5 second lock down.** 

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Access Control Upgrades @ Various Sites
Morongo Unified School District
No. 1-49-83

DOOR HARDWARE 08 71 00.02 - 23

#### Set: 14.0

# Doors: R103, R104, R105, R110, R111

1	Wrap Plate	As Required		DJ	
		IN100-10G77-BIPS LL SPAR 04416 ( No			
1	Access Control Cyl Lock, Aperio, No Key	Cylinder Override ) - Furnished in	US26D	SA	4
		0281300			

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

# Set: 15.0

Doors: E113A, F108A, F113A, G105A, <u>H112A</u>, H142, H147, H155, <u>M112, M113,</u> W108

1	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	SA	4
1	Wrap Plate	As Required		DJ	
1	Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	US15	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

# Set: 16.0

Doors: K118

1 Access Control Cyl Lock, Aperio, Cy Keyed	, <u>IN100-10G77-BIPS B LL - Furnished in</u> <u>0281300</u>	US26D	SA	4
1 Wrap Plate	As Required		DJ	
1 Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	US15	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

#### Set: 17.0

Doors: H131, H148, J101A, J111A, K111, K112, K113, K114, S102, S104, S112, U105, U107, V106, W102, W105, W106

1	Access Control Cyl Lock, Aperio, Cyl, Keyed	<u>IN100-10G77-BIPS B LL - Furnished in</u> <u>0281300</u>	US26D	SA	4
1	Wrap Plate	As Required		DJ	
1	Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	US15	SA	

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

#### Set: 18.0

Doors: H130B, K102, K103, T104, T105, T107, T108, T109, T110, T111, T112

1 Wrap Plate As Required DJ

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key

Cylinder Override ) - Furnished in

0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

## Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 19.0

Doors: H102B, X105, X107

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in US26D SA

0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

## Set: 20.0

Doors: H108A, J107A, TC100, X102, X103, X104, X108, X109, X110, X112, X113

1 Access Control Cyl Lock, Aperio, Cyl, Keyed

1 Cylinder

| N100-10G77-BIPS B LL - Furnished in 0281300 | DG1 C10-1 LFIC "0" bitted for facility keying | US15 SA | SA | Cylinder | US15 SA | Cylinder | Cylinde

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. **Available for 5 second lock down.** 

## TC100: Repair door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 21.0

Doors: H110A, H110B

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in US26D SA

0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 22.0

Doors: H109A

1 Access Control Cyl Lock, Aperio, Cyl, Keyed

| N100-10G77-BIPS B LL - Furnished in 0281300 | US26D | SA 4

1 Cylinder US15 SA

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 23.0

Doors: J100A, J100B, J100C, J100D, J102B, J110A, K116, N100B, N116A, N117A, N213A, N214A

5CH IN100-8878-BIPS B ETL 525 (No

2 Access Control Rim Exit, Aperio, No Key <u>Hex/Cyl Dogging</u>) - Furnished in US32D SA 0281300

Notes: Both Doors- Aperio lock - During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 24.0

Doors: H132, H144

1 Mullion L980 PC SA

5CH IN100-8878-BIPS B ETL 525 (No

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging ) - Furnished in US32D SA

0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

<u>These openings do not meet code - equal pair of 5' doors. Recommend unequal pair or opening up to 6'. Confirm with district</u>

Wrap around plates as required - on rated doors replace or repair and recertify as required

<u>Set: 25.0</u>

Doors: D100C, D105C, H102A

5CH IN100-8878-BIPS B ETL 525 (No

1 Access Control Rim Exit, Aperio, No Key <u>Hex/Cyl Dogging</u>) - Furnished in US32D SA

<u>0281300</u>

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

Access Control Upgrades @ Various Sites
Morongo Unified School District
No. 1-49-83

DOOR HARDWARE 08 71 00.02 - 27

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 26.0

Doors: H106A, H113A, H113B

5CH IN100-8878-BIPS B ETL 525 (No

2 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging) - Furnished in

US32D

SA 🛷

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

Wrap around plates as required - on rated doors replace or repair and recertify as required

0281300

Set: 27.0

Doors: A106

5CH IN100-8878-BIPS B ETL 525 (No

2 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging ) - Furnished in

US32D

SA 4

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

Wrap around plates as required - on rated doors replace or repair and recertify as required

0281300

Set: 28.0

Doors: G106A

5CH IN100-8877-BIPS B ETL LC 525 ( No

Hex/Cyl Dogging ) - Furnished in

US32D

SA 4

1 Aperio Control Rim Exit, Keyed, APERIO, KEYED

0281300

1 Rim Cylinder

DG1 63 34 "0" bitted for facility keying US32D SA

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

Wrap around plates as required - on rated doors replace or repair and recertify as required

### Set: 29.0

Doors: H100A, H100B

5CH IN100-8878-BIPS B ETL 525 (No

1 Access Control Rim Exit, Aperio, No Key <u>Hex/Cyl Dogging</u>) - Furnished in

0281300

US32D SA

4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 30.0

Doors: H106B

1 Mullion L980 PC SA

5CH IN100-8878-BIPS B ETL 525 (No

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging ) - Furnished in

US32D SA

<u>SA</u>

0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

This opening should be changed to an unequal pair - currently a pair of 5' doors.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 31.0

Doors: H114A, H114B

1 Access Control Rim Exit, Aperio, No Key

12 <u>5CH</u> IN100-8878-BIPS B ETL <u>525</u>(No

Hex/Cyl Dogging ) - Furnished in 0281300

SA

US32D

4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled as required by district during school hours. Available for 5 second lock down.

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 32.0

Doors: N100A

2 Access Control Rim Exit, Aperio, No Key

12 <u>5CH</u> IN100-8878-BIPS B ETL <u>525</u>(No Hex/Cyl Dogging) - Furnished in 0281300

US32D

SA



Notes: Both doors - Aperio lock - During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

### Set: 33.0

Doors: E101A, H105A, H140, K110, N101A, N103A, N201A, N203A

- 1	Access Control Mort Lock, Aperio, Keyed	<u>0281300</u>	US32D	SA	4
1	Indicator	185S-2	US32D	SA	
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 33.1

Doors: H107A

1	Access Control Mort Lock, Aperio, Keyed	IN100-82278 BIPS B OL LC - Furnished in 0281300	US32D	SA	4
1	Indicator	185S-2	US32D	SA	
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

Wrap around plates as required - on rated doors replace or repair and recertify as required

### Set: 34.0

Doors: E100B, E102A, E111A, E111AA, E114A, N105A, N108A, N109A, N204A, N205A, N206A, N215A, SR105, SR106

- 1	Access Control Mort Lock, Aperio, Keyed	0281300 BIPS B OL LC - Furnished in	US32D	SA	4
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 35.0

Doors: E105A

Access Control Mort Lock, Aperio, No Deadbolt, No Key

IN100-82279-BIPS OL LC - Furnished in 0281300

US32D

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 36.0

Doors: J106Cc

Access Control Mort Lock, Aperio, No Deadbolt, No Key

IN100-82279-BIPS OL LC - Furnished in 0281300

US32D

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock

Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 37.0

Doors: H104A

Access Control Mort Lock, Aperio, Deadbolt, No Key

IN100-82277-BIPS B OL LC - Furnished in US32D 0281300

DOOR HARDWARE

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

### Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 38.0

Doors: J106C

1 Access Control Mort Lock, Aperio, IN100-82277-BIPS B OL LC - Furnished in US32D

Access Control Upgrades @ Various Sites Morongo Unified School District

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Addendum 02

Deadbolt, No Key 0281300

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 39.0

Doors: H105B

1 Access Control Mort Lock, Aperio,
Deadbolt, Keyed

IN100-82276-BIPS B OL LC - Furnished in
0281300

US32D SA

1 Mortise Cylinder DG1 10 63 40 "0" bitted for facility US32D SA

keying

Notes: During off hours doors closed and locked with free egress at all times. Proper credential will momentarily unlock door. Door to be scheduled open during school hours.

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 40.0

Doors: N104A, N107A

1 Access Control Mort Lock, Aperio, Keyed IN100-82278 BIPS B OL LC - Furnished in 0281300 US32D SA

1 Mortise Cylinder DG1 63 41 "0" bitted for facility keying US32D SA

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door

# Wrap around plates as required - on rated doors replace or repair and recertify as required

Set: 43.0

**Doors: MISC** 

**Description: Aperio Hubs** 

 Hub
 AH40IN2 - Furnished in 0281300
 SA
 ♣

 USB Radio Dongle
 APD-10-USB - Furnished in 0281300
 SA

Notes: Provide the appropriate amount of hubs for proper functionality of the system.

# **END OF SECTION**

# SECTION 08 71 00.03 DOOR HARDWARE – TWENTYNINE PALMS JUNIOR HIGH SCHOOL

### PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- 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:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Flush Wood Doors".
  - 3. Division 28 Section "Access Control Hardware Devices".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC International Building Code.
  - 3. NFPA 70 National Electrical Code.
  - 4. NFPA 80 Fire Doors and Windows.
  - 5. NFPA 101 Life Safety Code.
  - 6. NFPA 105 Installation of Smoke Door Assemblies.
  - 7. 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:
  - 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.

### 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.
  - 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. 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.
- D. Proof of Compliance: (California located Projects): Provide a list of product(s) containing chemicals known to cause cancer or reproductive toxicity as defined by the Office of Environmental Health Hazard Assessment (OEHHA) under Proposition 65 (CA Code of Regulations, Title 27, Section 27001). The list includes the specific chemical(s), if the chemical will be exposed to consumers, the means of warning, and an illustration of the label.

### E. Informational Submittals:

- 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.
- F. California Building Code: Provide hardware that complies with CBC Section 11B.
  - 1. All openings as a part of an accessible route shall comply with CBC Section 11B-404.
  - 2. The clear opening width for a door shall be 32" minimum. For a swinging door it shall be measured between the face of the door and the stop, with the door open 90 degrees. There shall be no projections into it below 34" and 4" maximum projections into it between 34" and 80" above the finish floor or ground. Door closers and stops shall be permitted to be 78" minimum above the finish floor or ground. CBC Section 11B-404.2.3.
  - 3. Operable hardware on accessible doors shall comply with CBC Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

- 4. Hardware (including panic hardware) shall not be provided with "nightlatch" function for any accessible doors or gates unless the following conditions are met:
  - a. Such hardware has a 'dogging' feature and is dogged during the time the facility is open.
  - b. All 'dogging' operation is performed only by employees as their job function (non-public use).
- 5. The force for pushing or pulling open a door shall be in accordance with CBC Section 11B-404.2.9.
  - a. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
  - b. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with CBC Section 11B-309.4.
  - c. The 5 pound (22.2 N) maximum force shall be validated for the size of the door used. The Building Materials Listing of the California State Fire Marshal shall indicate that the door hardware meets the 5 pound (22.2 N) force and shall also list the largest door that can be used.
- 6. Door closing speed shall comply with CBC Section 11B-404.2.8. Closers shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum. Spring hinges shall be adjusted so that the required time to move a door from an open position of 70 degrees to the closed position is 1.5 seconds minimum.
- 7. Floor stops shall not be located in the path of travel and 4" maximum from walls.
- 8. Thresholds shall comply with CBC Section 11B-404.2.5.
- G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- H. 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.
- I. 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.

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

### 1.5 DELIVERY, STORAGE, AND HANDLING

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

### 1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and prewired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

### 1.7 WARRANTY

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

### 1.8 MAINTENANCE SERVICE

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

### PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution

Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

### 2.2 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
  - 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
  - 2. Furnish dust proof strikes for bottom bolts.
  - 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
  - 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
  - 5. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Door Controls International (DC).
    - c. Rockwood (RO).
- B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
  - 1. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Door Controls International (DC).
    - c. Rockwood (RO).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
  - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
  - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
  - 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
  - 5. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Hiawatha, Inc. (HI).
    - c. Rockwood (RO).

### 2.3 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: Match Facility Restricted Keyway.
- D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.
  - 1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
  - 2. Manufacturers:
    - a. Sargent (SA) Degree DG1.
    - b. No Substitution.
- 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. Existing System: Field verify and key cylinders to match Owner's existing system.
- F. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Two (2)
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
- 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.

### 2.4 APERIO WIRELESS ACCESS CONTROL

- A. Wireless Access Control Mortise Locks: Wireless technology ANSI/BHMA A156.13 Grade 1 mortise lockset with integrated card reader, deadbolt monitoring, and request-to-exit and door position switch signaling in one complete unit. Motor driven locking/unlocking control of the lever handle trim, 3/4" stainless steel latch, and optional 1" deadbolt with hardened inserts. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.
  - 1. Wireless access control lock interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
  - 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
  - 5. <u>Lockdown capability with maximum 10 second response.</u>
  - 6. Patent pending credential cache to ensure offline access.
  - 7. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
  - 8. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
  - 9. <u>Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.</u>
  - 10. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
  - 11. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

# 12. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 8200 Series.
- b. No Substitutions.
- B. <u>Wireless Access Control Cylindrical Locks: Wireless technology ANSI/BHMA A156.2 Series 4000 Grade 1 cylindrical lockset with integrated card reader and request-to-exit signaling in one complete unit.</u>
  Separate DPS connects directly to lock electronics for door position (open/closed status) monitoring.

Motor driven locking/unlocking control of the lever handle trim with 1/2" deadlocking stainless steel latch. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings.

- 1. Wireless access control cylindrical locks interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
- 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
- 3. Integrated reader supports HID® 125kHz proximity credentials; or ISO 14443 A/B and ISO 15693 13.56 MHz contactless credentials: HID® iCLASS/iCLASS SE (full authentication, all formats), MIFARE Classic, DESFire EV1 (full authentication, all formats); or Near Field Communications (NFC); or HID® SIO enabled.
- 4. Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless communication.
- 5. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
- 6. Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.
- 7. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 8. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

### 9. Manufacturers:

- a. Sargent Manufacturing (SA) IN100 10 Line Series.
- b. **No Substitutions.**
- C. Wireless Access Control Exit Hardware: Wireless technology ANSI/BHMA A156.3 Grade 1 rim and mortise exit device hardware with integrated card reader. Separate DPS connects directly to exit hardware electronics for door position (open/closed status) monitoring. Motor driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override trim.
  - 1. Wireless access control exit hardware interfaces using local wireless connection between the electronic exit trim and a communication hub located directly above the door. Communication hub connected via RS-485 to a new or existing online electronic access control system platform.
  - 2. <u>Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.</u>
  - 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>

- 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
- 5. Lockdown capability with maximum 10 second response.
- 6. Patent pending credential cache to ensure offline access.
- 7. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
- 8. Outside lever rigid except when in "passage" mode, or valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of exit device latch without necessary electronic activation.
- 9. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

# 10. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 80 Series.
- b. No Substitutions.

### 2.5 <u>INTEGRATED WIRED OUTPUT ACCESS CONTROL, MULTI-CLASS READER</u>

### 2.6 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.

### 2.7 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.
- 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 (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade 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, closing sweep, and latch speed control valves. Provide non-handed units standard.
  - 1. Manufacturers:
    - a. Norton Rixson (NO) 8500 Series.
    - b. Sargent Manufacturing (SA) 1431 Series.

### 2.8 DOOR STOPS AND HOLDERS

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

#### 2.9 ARCHITECTURAL SEALS

- Α. 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 noncorrosive fasteners and elsewhere where indicated.
- В. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. Pemko (PE).
  - 2. Reese Enterprises, Inc. (RE).

#### 2.10 **FABRICATION**

Α. 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.

#### 2.11 **FINISHES**

- Α. 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:
  - 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**

- Α. 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**

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

#### DOOR HARDWARE SETS 3.8

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.
- B. Manufacturer's Abbreviations:
  - 1. RO Rockwood
  - 2. SA SARGENT
  - 3. PE Pemko
  - 4. OT Other

### **Hardware Sets**

### Set: 1.0

Doors: A104, A111, B102, B103, B104, D103, D104, D105, D106, E102, E118, F105, G101, G102, G103, G1085, G1105, G111M, G112M, I101, I102, I103, I106, I107

1 Access Control Rim Exit, Aperio, No Key

IN100-8878-BIPS B ETL<u>5CH 525</u> (No Hex/Cyl Dogging - Furnished in 0281300

US32D

ςΔ

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Set: 2.0

Doors: <u>**E104**</u>, G109S<u>, **I108**, **I109**</u>, R101, R102, R103

1 Access Control Rim Exit, Aperio, Keyed IN100-8877-BIPS B ETL\_5CH 525 (No Hex/Cyl Dogging ) - Furnished in 0281300 US32D

1 Rim Cylinder DG1 63 34 "0" bitted for facility keying US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

SA 4

### Set: 3.0

Doors: A119, A120, A128, A129, I104

1 Access Control Rim Exit, Aperio, No Key, Fire Rated 12 IN100-8878-BIPS B ETL 5CH 525 (No Hex/Cyl Dogging) - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 4.0

Doors: F103, F104

1 Access Control Rim Exit, Aperio, Keyed, Fire Rated

1 Rim Cylinder

1 Access Control Rim Exit, Aperio, Keyed, Hex/Cyl Dogging ) - Furnished in 0281300

DG1 63 34 "0" bitted for facility keying US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

### Set: 5.0

Doors: **B104A, D101, D102, E106, E107, E110, E111, E115** 

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in US26D SA

0281300

1 Wrap-Around As Required OT

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. <u>Door to be scheduled open during school hours</u>. Available for 5 second lock down.

# Set: 6.0

Doors: E103, E105, E113, X102

1 Access Control Cyl Lock, Aperio, Cyl, Keyed

1 Cylinder

1 Wrap-Around

1 Mrap-Around

1 N100-10G77-BIPS B LL - Furnished in 0281300

1 O281300

1 O2813000

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

REPAIR DOOR: X102

Access Control Upgrades @ Various Sites Morongo Unified School District No. 1-49-83 DOOR HARDWARE 08 71 00.03 - 17

### Set: 7.0

Doors: A118

<u>1</u>	Flush Bolt w/Fire Bolt	<u>2848</u>	US32D	RO	
<u>1</u>	Access Control Mort Lock, Deadbolt, Aperio, Keyed	<u>IN100-82276-BIPS B OL LC - Furnished in 0281300</u>	US32D	<u>SA</u>	4
<u>1</u>	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	
<u>1</u>	Coordinator	<u>2600</u>	<u>Black</u>	RO	
<u>2</u>	Surface Closer	1431 CPS	<u>EN</u>	<u>SA</u>	
<u>1</u>	Gasketing	<u>\$88BL</u>		<u>PE</u>	
<u>1</u>	<u>Astragal</u>	<u>\$771BL</u>		<u>PE</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Set: 8.0

Doors: <u>F101</u>, <u>F102</u>, <u>F117</u>, <u>J101</u>, <u>J103</u>

<u>1</u>	Mullion	12-L980	<u>PC</u>	<u>SA</u>	
<u>2</u>	Access Control Rim Exit, Aperio, No Key, Fire Rated	12 IN100-8878-BIPS B ETL 5CH 525 ( No Hex/Cyl Dogging) - Furnished in 0281300	US32D	<u>SA</u>	4
<u>1</u>	Cylinder	DG1 63 980C1	US26D	<u>SA</u>	
<u>1</u>	Gasketing	5110BL		<u>PE</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 9.0

Doors: **B104B**, **E112**, **E116**, **E117** 

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in 0281300 US26D SA 4

### Set: 10.0

Doors: **RR101, RR104** 

1	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	SA	4
1	Cylinder	DG1 C10-1 "0" bitted for facility keying	US15	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 11.0

Doors: A101, A106, A109, A113, A114, A117, E101

2 Access Control Rim Exit, Aperio, Keyed Hex/Cyl Dogging ) - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 12.0

Doors: A102, A105, A107, A115, A116

1 Access Control Rim Exit, Aperio, Keyed Hex/Cyl Dogging ) - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Set: 13.0

Doors: **A108** 

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 14.0

Doors: **A133** 

1 Access Control Rim Exit, Aperio, No Key IN100-8878-BIPS B ETL 5CH 525 (No US32D SA 4

Access Control Upgrades @ Various Sites Morongo Unified School District No. 1-49-83

# **Hex/Cyl Dogging - Furnished in 0281300**

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

### Set: 15.0

Doors: **C108A, C108B** 

1	<u>Mullion</u>	<u>L980</u>	<u>PC</u>	<u>SA</u>	
1	Access Control Rim Exit, Aperio, No Key	IN100-8878-BIPS B ETL 5CH 525 (No Hex/Cyl Dogging - Furnished in 0281300	US32D	<u>SA</u>	4
1	Cylinder	DG1 63 980C1	US26D	<u>SA</u>	
1	Gasketing	<u>5110BL</u>		<u>PE</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 16.0

Doors: **A112, E114** 

<u>1</u>	<u>Mullion</u>	<u>L980</u>	<u>PC</u>	<u>SA</u>	
<u>2</u>	Access Control Rim Exit, Aperio, Keyed	IN100-8877-BIPS B ETL 5CH 525 (No Hex/Cyl Dogging ) - Furnished in 0281300	US32D	<u>SA</u>	<u>4</u>
<u>1</u>	Rim Cylinder	DG1 63 34 "0" bitted for facility keying	US32D	<u>SA</u>	
<u>1</u>	Cylinder	DG1 63 980C1	US26D	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

### Set: 17.0

Doors: A124, A125, A126, A130, C101A, C117A, G104, G105, I114

Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	US32D	SA	4
<u>Deadbolt, Keyed</u>	<u>0281300</u>		00025 071	
1 Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

### Set: 18.0

Doors: **C111A, E109** 

1	Access Control Mort Lock, Deadbolt,	IN100-82276-BIPS B OL LC - Furnished in	HESSE	<u>SA</u>	1
	Aperio, Keyed	<u>0281300</u>	<u>US32D</u>		4
1	<u>Indicator</u>	<u>185S-2</u>	US32D	<u>SA</u>	
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Set: 19.0

<u>Doors: A110, A132, A134, C101B, C102A, C102B, C102C, C103A, C103B, C105A, C105B, C106A, C106B, C113A, C113B, F116, F119, F121, F122, G106, G107, I115</u>

1 Access Control Mort Lock, No Deadbolt, IN100-82279-BIPS OL - Furnished in O281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Set: 20.0

Doors: **A121, A127** 

1 Access Control Mort Lock, No Deadbolt, IN100-82279-BIPS OL - Furnished in O281300 US32D SA

Notes: Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door. **Scheduled open during school hours.** 

Set: 21.0

Doors: **J106, J117**, RR102, RR103

1 Access Control Mort Lock, Aperio, No Deadbolt, Keyed US32D SA 4

### Set: 22.0

Doors: **J104, J105** 

1	Access Control Mort Lock, Aperio, No	IN100-82278 OL LC - Furnished in	LICAAD	<u>SA</u>	1
	Deadbolt, Keyed	<u>0281300</u>	US32D		4
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 23.0

Doors: **B101, B102A, B102B, X101** 

	Access Control Mort Lock, Deadbolt,	IN100-82276-BIPS B OL LC - Furnished in	US32D	<u>SA</u>	1
	Aperio, Keyed	<u>0281300</u>	<u>US32D</u>		4
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. **Available for 5 second lock down.** 

### Set: 24.0

Doors: C102D, C114A, F107, F109, F112, F115, F118, I105, I111, I112, I113, J109, J112, J113, J115, J116

	Access Control Mort Lock, No Deadbolt,	IN100-82279-BIPS OL - Furnished in	LICAAD		1
1	Aperio, No Key	0281300	<u>US32D</u>	<u>5A</u>	<del>4</del> 2

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Set: 25.0

Doors: C104A, I110, J102, J107, J108, J118

1	Access Control Mort Lock, Deadbolt,	IN100-82276-BIPS B OL LC - Furnished in	US32D	SA	4
	Aperio, Keyed	0281300		_	,
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

# Set: 26.0

Doors: F108, F111, F113, F114, J110, J111, J114

4	Access Control Mort Lock, No Deadbolt	IN100-82279-BIPS OL - Furnished in	LICAAD	C A	1
1	Aperio. No Kev	0281300	US32D	SA	4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 27.0

Doors: <u>**A122**</u>

<u>1</u>	Surface Bolt	<u>580</u>	US26D	RO	
<u>1</u>	Access Control Mort Lock, Aperio, No Deadbolt, Keyed	<u>IN100-82278 OL LC - Furnished in 0281300</u>	US32D	<u>SA</u>	4
<u>1</u>	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. **Door to be scheduled open during school hours. Available for 5 second lock down.** 

Set: 28.0

Doors: **E108** 

2 Hardware Verify in Field OT

Set: 29.0

Doors: K105, K106

	Access Control Mort Lock, Deadbolt,	IN100-82276-BIPS B OL LC - Furnished in	US32D SA	CΛ	1
	Aperio, Keyed	<u>0281300</u>		SA	V
1	Mortise Cylinder	DG1 63 41 "0" bitted for facility keying	US32D	SA	

Notes: Verify lock type in field. Patch and repair as required.

Set: 30.0

Doors: K101, K102, K103, K104

1	Access Control Rim Exit, Aperio, Keyed	IN100-8877-BIPS B ETL 5CH 525 (No Hex/Cyl Dogging ) - Furnished in 0281300	US32D	SA	4
1	Rim Cylinder	DG1 63 34 "0" bitted for facility keying	US32D	SA	

-

Notes: Verify lock type in field. Patch and repair as required.

Set: 31.0

**Doors: MISC** 

**Description: Aperio Hubs** 

-

 Hub
 AH40IN2 - Furnished in 0281300
 SA
 ≤

 USB Radio Dongle
 APD-10-USB - Furnished in 0281300
 SA

Notes: Provide the appropriate amount of hubs for proper functionality of the system.

**END OF SECTION** 

# SECTION 08 71 00.04 DOOR HARDWARE – LA CONTENTA MIDDLE SCHOOL

### PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Electromechanical door hardware.
  - 3. Cylinders specified for doors in other sections.

### C. Related Sections:

- 1. Division 08 Section "Hollow Metal Doors and Frames".
- 2. Division 28 Section "Access Control Hardware Devices".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC International Building Code.
  - 3. NFPA 70 National Electrical Code.
  - 4. NFPA 80 Fire Doors and Windows.
  - 5. NFPA 101 Life Safety Code.
  - 6. NFPA 105 Installation of Smoke Door Assemblies.
  - 7. 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:
  - 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.

### 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:
  - 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:
    - 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. Proof of Compliance: (California located Projects): Provide a list of product(s) containing chemicals known to cause cancer or reproductive toxicity as defined by the Office of Environmental Health Hazard Assessment (OEHHA) under Proposition 65 (CA Code of Regulations, Title 27, Section 27001). The list includes the specific chemical(s), if the chemical will be exposed to consumers, the means of warning, and an illustration of the label.

### F. Informational Submittals:

- 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- G. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout 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. California Building Code: Provide hardware that complies with CBC Section 11B.
  - 1. All openings as a part of an accessible route shall comply with CBC Section 11B-404.
  - 2. The clear opening width for a door shall be 32" minimum. For a swinging door it shall be measured between the face of the door and the stop, with the door open 90 degrees. There shall be no projections into it below 34" and 4" maximum projections into it between 34" and 80" above the finish floor or ground. Door closers and stops shall be permitted to be 78" minimum above the finish floor or ground. CBC Section 11B-404.2.3.
  - 3. Operable hardware on accessible doors shall comply with CBC Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.
  - 4. Hardware (including panic hardware) shall not be provided with "nightlatch" function for any accessible doors or gates unless the following conditions are met:
    - a. Such hardware has a 'dogging' feature and is dogged during the time the facility is open.
    - b. All 'dogging' operation is performed only by employees as their job function (non-public use).
  - 5. The force for pushing or pulling open a door shall be in accordance with CBC Section 11B-404.2.9.
    - a. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
    - b. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with CBC Section 11B-309.4.
    - c. The 5 pound (22.2 N) maximum force shall be validated for the size of the door used. The Building Materials Listing of the California State Fire Marshal shall indicate that the door hardware meets the 5 pound (22.2 N) force and shall also list the largest door that can be used.
  - 6. Door closing speed shall comply with CBC Section 11B-404.2.8. Closers shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum. Spring hinges shall be adjusted so that the required time to move a door from an open position of 70 degrees to the closed position is 1.5 seconds minimum.
  - 7. Floor stops shall not be located in the path of travel and 4" maximum from walls.
  - 8. Thresholds shall comply with CBC Section 11B-404.2.5.

- G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- H. 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.
- I. 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.
  - 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
- J. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

### 1.5 DELIVERY, STORAGE, AND HANDLING

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

### 1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings

- of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and prewired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

### 1.7 WARRANTY

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

### 1.8 MAINTENANCE SERVICE

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

# PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

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

- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

### 2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 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. Manufacturers:
    - a. Bommer Industries (BO).

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- b. McKinney (MK).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
  - 1. Manufacturers:
    - a. Pemko (PE).

### 2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
  - 1. Manufacturers:
    - a. Pemko (PE) EL-CEPT Series.
    - b. Securitron (SU) EL-CEPT Series.
- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.
  - 1. Provide one each of the following tools as part of the base bid contract:
    - a. McKinney (MK) Electrical Connecting Kit: QC-R001.
    - b. McKinney (MK) Connector Hand Tool: QC-R003.
  - 2. Manufacturers:
    - a. McKinney (MK) QC-C Series.

### 2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
  - 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.

- 2. Furnish dust proof strikes for bottom bolts.
- 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
- 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
- 5. Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Door Controls International (DC).
  - c. Rockwood (RO).
- B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
  - 1. Manufacturers:
    - a. Rockwood (RO).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
  - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
  - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
  - 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
  - 5. Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Hiawatha, Inc. (HI).
    - c. Rockwood (RO).

### 2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
- C. 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: Match Facility Standard.
- D. 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. Existing System: Field verify and key cylinders to match Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
  - 1. Change Keys per Cylinder: Two (2)
  - 2. Master Keys (per Master Key Level/Group): Five (5).
  - 3. Construction Keys (where required): Ten (10).
- F. Construction Keying: Provide temporary keyed construction cores.
- G. Key Registration List (Bitting List):
  - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
  - 2. Provide transcript list in writing or electronic file as directed by the Owner.

### 2.6 KEY CONTROL

- P. Electronic Key Management System: Provide an electronic key control system with Stand-alone Plug and Play features including advanced RFID technology. Touchscreen interface with PIN access for keys individually locked in place. Minimum 1,000 system users and 21 iFobs for locking receptors. System shall have a minimum 250,000 audit events screen displayed or ability to be exported via USB port.
  - 1. Manufacturers:
    - a. Medeco (MC).
    - b. Traka (TA).

### 2.7 APERIO WIRELESS ACCESS CONTROL

A. Wireless Access Control Mortise Locks: Wireless technology ANSI/BHMA A156.13 Grade 1 mortise lockset with integrated card reader, deadbolt monitoring, and request-to-exit and door position switch signaling in one complete unit. Motor driven locking/unlocking control of the lever handle trim, 3/4" stainless steel latch, and optional 1" deadbolt with hardened inserts. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

- 1. Wireless access control lock interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
- 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
- 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
- 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
- 5. <u>Lockdown capability with maximum 10 second response.</u>
- 6. Patent pending credential cache to ensure offline access.
- 7. Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.
- 8. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
- Outside lever rigid except when valid user code is entered. Emergency override access
  capability with optional mechanical key cylinder retraction of lock latch bolt without necessary
  electronic activation.
- 10. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 11. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

### 12. **Manufacturers:**

- a. <u>Sargent Manufacturing (SA) IN100 8200 Series.</u>
- b. No Substitutions.
- B. Wireless Access Control Cylindrical Locks: Wireless technology ANSI/BHMA A156.2 Series 4000 Grade

  1 cylindrical lockset with integrated card reader and request-to-exit signaling in one complete unit.

  Separate DPS connects directly to lock electronics for door position (open/closed status) monitoring.

  Motor driven locking/unlocking control of the lever handle trim with 1/2" deadlocking stainless steel latch. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings.
  - 1. Wireless access control cylindrical locks interface using local wireless connection between the lock unit and a nearby communication hub. Communication hub connected via RS-485 or Wiegand to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. Integrated reader supports HID® 125kHz proximity credentials; or ISO 14443 A/B and ISO 15693
    13.56 MHz contactless credentials: HID® iCLASS/iCLASS SE (full authentication, all formats),
    MIFARE Classic, DESFire EV1 (full authentication, all formats); or Near Field Communications
    (NFC); or HID® SIO enabled.
  - 4. Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless communication.

- 5. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
- 6. Outside lever rigid except when valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of lock latch bolt without necessary electronic activation.
- 7. Communication Hub: Provide the necessary number of hubs which is connected to the access control system via RS-485 or Wiegand as required by the system. Provide hubs factory paired with the locks, but allow for field configuration as needed.
- 8. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

### 9. Manufacturers:

- a. <u>Sargent Manufacturing (SA) IN100 10 Line Series.</u>
- b. No Substitutions.
- C. Wireless Access Control Exit Hardware: Wireless technology ANSI/BHMA A156.3 Grade 1 rim and mortise exit device hardware with integrated card reader. Separate DPS connects directly to exit hardware electronics for door position (open/closed status) monitoring. Motor driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override trim.
  - 1. Wireless access control exit hardware interfaces using local wireless connection between the electronic exit trim and a communication hub located directly above the door. Communication hub connected via RS-485 to a new or existing online electronic access control system platform.
  - 2. Fully-encrypted AES 128 wireless communication between lock and communication hub (IEEE 802.15.4, 2.4 GHz) with no proprietary programming device requirements. Locks will continue functional operation independent of wireless connection slowdown or failure.
  - 3. <u>Integrated card reader supports 125kHz proximity credentials; 13.56 MHz contactless credentials: HID® iCLASS (full authentication, all formats, including SEOS), Mifare Classic (Sector and UID), DESFire, NFC-enabled mobile phones.</u>
  - 4. <u>Support for HID Mobile Access via Bluetooth Low Energy (BLE) short-range wireless</u> communication.
  - 5. Lockdown capability with maximum 10 second response.
  - 6. Patent pending credential cache to ensure offline access.
  - 7. <u>Power Source: 6 AA alkaline batteries power supply with LED indication of locked, programming mode and low capacity warning status conditions.</u>
  - 8. Outside lever rigid except when in "passage" mode, or valid user code is entered. Emergency override access capability with optional mechanical key cylinder retraction of exit device latch without necessary electronic activation.
  - 9. Complete installation to include manufacturer's Installation Tool and USB Radio Dongle for initial lock set-up and configuration. Electronic on-line access control system platform, including communication cabling and software, by others.

### 10. **Manufacturers:**

- a. Sargent Manufacturing (SA) IN100 80 Series.
- b. **No Substitutions.**

### 2.8 INTEGRATED WIRED OUTPUT ACCESS CONTROL, MULTI-CLASS READER

### 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 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.

- В. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade 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, closing sweep, and latch speed control valves. Provide nonhanded units standard.
  - 1. Manufacturers:
    - a. Norton Rixson (NO) - 8500 Series.
    - b. Sargent Manufacturing (SA) - 1431 Series.

### 2.11 DOOR STOPS AND HOLDERS

- Α. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
  - 1. Manufacturers:
    - Burns Manufacturing (BU). a.
    - b. Hiawatha, Inc. (HI).
    - c. Rockwood (RO).
- 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.
  - Manufacturers: 1.
    - a. Norton Rixson (RF).
    - b. Rockwood (RO).
    - Sargent Manufacturing (SA). c.

### 2.12 **ARCHITECTURAL SEALS**

Α. 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 noncorrosive fasteners and elsewhere where indicated.

- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. Pemko (PE).
  - 2. Reese Enterprises, Inc. (RE).

### 2.13 FABRICATION

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

### 2.14 FINISHES

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

### 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.
  - 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.
- B. Manufacturer's Abbreviations:
  - 1. MK McKinney
  - 2. DJ Don-Jo
  - 3. SA SARGENT
  - 4. RO Rockwood
  - 5. PE Pemko

### **Hardware Sets**

### Set: 1.0

Doors: A102, A103, A104, A105, A106, A107, A108, A109, B101, B102, B103, B104, B105, B106, B110, B111, B112, <u>B113</u>, B114, <u>B115</u>, B116, <u>B117</u>, B118, <u>B119</u>, C101, C102, <u>C103</u>, C104, <u>C105</u>, C106, <u>C107</u>, <u>D101</u>, <u>D102</u>, D105, D106, <u>D107</u>, D110, <u>D111</u>, <u>D115</u>, <u>F103</u>, G103, <u>G104</u>, <u>G105</u>, <u>H101</u>, H102, <u>H103</u>, H104, H107, <u>H108</u>, H109, <u>H110</u>, H111, **H112, L101**, L102, **L104**, L105, R108, **R109** 

IN100-8878-BIPS B ETL 5CH 525 (No 4 1 Access Control Rim Exit, Aperio, No Key US32D SA Hex/Cyl Dogging - Furnished in 0281300

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### **REPAIR DOOR: B118.**

### Set: 2.0

Doors: A101, B108, <u>B109</u>, H105, N101A, N102A, N103A, N106A, N107A, N108A, <u>N109A</u>, <u>N110A</u>, <u>N111A</u>, R101, R102, R103, R104, R105, R106, R107, R110, R111, R112, R113, R114, R115, RR101, RR102

IN100-8877-BIPS B ETL **5CH 525** ( No 1 Aperio Control Rim Exit, Keyed US32D SA 4 Hex/Cyl Dogging ) - Furnished in 0281300

DG1 10 63 34 "0" bitted for facility 1 Rim Cylinder US32D SA keying

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 3.0

Doors: D112, D119, D120, F102, G102, G111, G113, G115, G118

<u>1</u>	<u>Wrap-Around</u>	<u>As Required</u>		<u>OT</u>	
		IN100-10G77-BIPS LL SPAR 04416 ( No			
<u>1</u>	Access Control Cyl Lock, Aperio, No Key	Cylinder Override ) - Furnished in	US26D	<u>SA</u>	4
		0281300			•

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 4.0

Doors: B107, C108, C111, D108, D116, D117, D125, D126, D127, D128, D130, F104, F105, F106, F107, F108, F109, F112, G107, G112, G114, G116, G117, G119, H116, H117

1 Wrap Plate	As Required		DJ	
1 Access Control Cyl Lock, Aperio, Cyl Keyed	N100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u>	4
1 Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

# Set: 5.0

Doors: C110, D129, F110, F111, H115

3 Hinge, Full Mortise	<u>TA2714</u>	US26D	<u>MK</u>	
1 Wrap Plate	As Required		DJ	
1 Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u> 4	4
1 Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	
1 Surface Closer	<u>1431 CPS</u>	<u>EN</u>	<u>SA</u>	
1 Gasketing	<u>S88BL</u>		<u>PE</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Replace door or patch and recertify as required for fire rating

### Set: 6.0

Doors: **D123, D124, G110, G120** 

3 Hinge, Fu	<u>ll Mortise</u>	<u>TA2714</u>	US26D	<u>MK</u>	
1 Access Co	ntrol Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u>	4
1 Cylinder		DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	
1 Surface C	<u>loser</u>	<u>1431 OTB</u>	<u>EN</u>	<u>SA</u>	
1 Door Stop	<u>)</u>	<u>441H</u>	<u>US26D</u>	<u>RO</u>	
1 Gasketing	<u> </u>	<u>S88BL</u>		<u>PE</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Replace door or patch and recertify as required for fire rating

Set: 7.0

Doors: **G101, G106** 

		IN100-10G77-BIPS LL SPAR 04416 ( No.			
1	Access Control Cyl Lock, Aperio, No Key	Cylinder Override ) - Furnished in	US26D	SA	4
		0281300			

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

## Set: 8.0

Doors: G108, G109, H106, RR103, RR104

Access Control Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL - Furnished in	US26D	C A	1
<sup>±</sup> <u>Keyed</u>	<u>0281300</u>		<u>SA</u>	7
1 Cylinder	DG1 C10-1 LFIC "0" bitted for facility	US15	SA	
<u> </u>	<u>keying</u>	<u> </u>	<u>574</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Set: 9.0

Doors: **E105** 

1 Access Control Cyl Lock, Aperio, Cyl,	IN100-10G77-BIPS B LL - Furnished in	US26D	SΔ	4
3 Hinge, Full Mortise	TA2714	US26D	MK	

Access Control Upgrades @ Various Sites

DOOR HARDWARE 08 71 00.04 - 20

Morongo Unified School District

No. 1-49-83 <u>Addendum 02</u>

<u>Keyed</u>	<u>0281300</u>		
1 Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>
1 Surface Closer	<u>1431 CPS</u>	<u>EN</u>	<u>SA</u>
1 Threshold	Match Existing		<u>PE</u>
1 Gasketing	<u>303AS</u>		<u>PE</u>

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Notes: Fire label, inspect in field.

Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.

### Set: 10.0

Doors: **B120, B122, D113, D114** 

<u>3</u>	Hinge, Full Mortise	<u>TA2714</u>	<u>US26D</u>	<u>MK</u>
<u>1</u>	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>sa</u> 👙
1	Cylinder	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>
<u>1</u>	Overhead Holder	<u>Surface - Heavy Duty (Traffic) - Model - Stop Only</u>		
<u>1</u>	Surface Overhead Stop	<u>598S</u>	<u>EN</u>	<u>SA</u>
<u>1</u>	Surface Closer	<u>1431 O</u>	<u>EN</u>	<u>SA</u>
<u>1</u>	Gasketing	<u>S88BL</u>		<u>PE</u>

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Notes: Fire label, inspect in field.

<u>Door normally closed and locked with free egress at all times. Proper credential will momentarily unlock door.</u>

# <u>Set: 11.0</u>

Doors: **D103, D104, F101** 

2 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging - Furnished in 0281300 US32D SA

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Doors: **C109** 

1 Access Control Rim Exit, Aperio, No Key Hex/Cyl Dogging - Furnished in 0281300 SA 4

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 13.0

Doors: **D109** 

1	Wrap Plate	As Required		<u>DJ</u>	
1	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u>	4
1	<u>Cylinder</u>	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 14.0

Doors: C113, D118, D121, D122, E101, E102, E103, E104, N104A, N105A

1	Access Control Mort Lock, Aperio, Keyed	IN100-82278 OL LC - Furnished in 0281300	US32D	SA	4
1	Mortise Cylinder	DG1 63 40 "0" bitted for facility keying	US32D	SA	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

### Set: 15.0

Doors: **H118** 

<u>1</u>	Access Control Cyl Lock, Aperio, Cyl, Keyed	IN100-10G77-BIPS B LL - Furnished in 0281300	US26D	<u>SA</u>	4
<u>1</u>	<u>Cylinder</u>	DG1 C10-1 LFIC "0" bitted for facility keying	<u>US15</u>	<u>SA</u>	

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Verify condition of existing hardware, replace as needed. New flush door.

Set: 16.0

Doors: **B121, B123** 

IN100-10G77-BIPS LL SPAR 04416 ( No

1 Access Control Cyl Lock, Aperio, No Key Cylinder Override ) - Furnished in <u>SA</u> US26D

0281300

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Verify condition of existing hardware, replace as needed. New flush fire door.

Set: 17.0

Doors: **B124**, **H113**, **H114** 

IN100-10G77-BIPS B LL - Furnished in Access Control Cyl Lock, Aperio, Cyl, SA 4 <u>US26D</u> Keyed 0281300

DG1 C10-1 LFIC "0" bitted for facility **US15** 1 Cylinder SA

keying

Notes: During off hours door closed and locked with free egress at all times. Proper credential momentarily unlocks door. Door to be scheduled open during school hours. Available for 5 second lock down.

Verify condition of existing hardware, replace as needed. New flush fire door.

Set: 18.0

**Doors: MISC** 

**Description: Aperio Hubs** 

<u>Hub</u> AH40IN2 - Furnished in 0281300 <u>SA</u>

**USB Radio Dongle** APD-10-USB - Furnished in 0281300 <u>SA</u>

Notes: Provide the appropriate amount of hubs for proper functionality of the system.

**END OF SECTION** 

# BID #22-01 ACCESS CONTROL & DOOR HARDWARE

ARCHITECTS

RUHNAU

CLARKE

SHEET INDEX

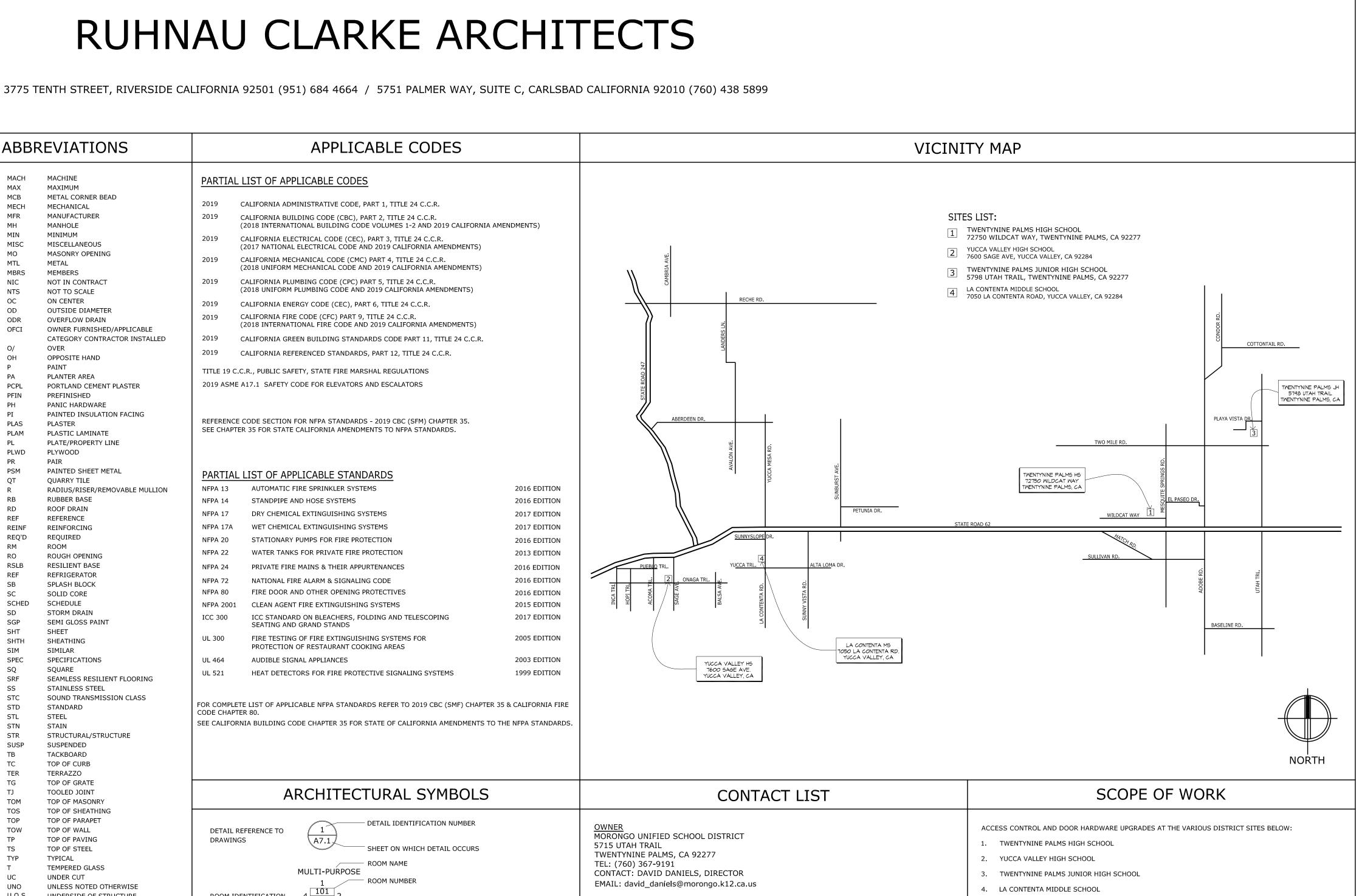
**GENERAL** 

T-1.0 TITLE SHEET

# **ARCHITECTURAL**

- 1. TWENTYNINE PALMS HIGH SCHOOL (09 SHEETS)
- BUILDING A & B: FLOOR PLAN & DOOR SCHEDULES BUILDING C & G: FLOOR PLAN & DOOR SCHEDULES
- BUILDING K & M: FLOOR PLAN & DOOR SCHEDULES
- BUILDING NA: FLOOR PLAN & DOOR SCHEDULES NORTH RELO & SOUTH RELO: FLOOR PLAN & DOOR SCHEDULES
- 2. YUCCA VALLEY HIGH SCHOOL (13 SHEETS)
- BUILDING A & B: FLOOR PLAN & DOOR SCHEDULES
- BUILDING C & X: FLOOR PLAN & DOOR SCHEDULES
- BUILDING D & V: FLOOR PLAN & DOOR SCHEDULES
- BUILDING E & G: FLOOR PLAN & DOOR SCHEDULES BUILDING F: FLOOR PLAN & DOOR SCHEDULES
- BUILDING H: FLOOR PLAN & DOOR SCHEDULES BUILDING J & K: FLOOR PLAN & DOOR SCHEDULES
- BUILDING M & R: FLOOR PLAN & DOOR SCHEDULES
- BUILDING N TWO STORY: FLOOR PLAN & DOOR SCHEDULES
- BUILDING S & T: FLOOR PLAN & DOOR SCHEDULES BUILDING U & W: FLOOR PLAN & DOOR SCHEDULES
- BUILDING Y & Z; RELO & L.S: FLOOR PLAN & DOOR SCHEDULES
- 3. TWENTYNINE PALMS JUNIOR HIGH SCHOOL (7 SHEETS)
  - AS3.0 SITE PLAN
  - BUILDING A: FLOOR PLAN & DOOR SCHEDULES BUILDING B & C: FLOOR PLAN & DOOR SCHEDULES BUILDING D & E & X: FLOOR PLAN & DOOR SCHEDULES
- BUILDING F & J: FLOOR PLAN & DOOR SCHEDULES BUILDING G & I: FLOOR PLAN & DOOR SCHEDULES
- A3.06 BUILDING K & RELO: FLOOR PLAN & DOOR SCHEDULES
- 4. LA CONTENTA MIDDLE SCHOOL (6 SHEETS)
  - BUILDING A & B: FLOOR PLAN & DOOR SCHEDULES
  - BUILDING C & H: FLOOR PLAN & DOOR SCHEDULES BUILDING D & F: FLOOR PLAN & DOOR SCHEDULES
  - BUILDING G & N: FLOOR PLAN & DOOR SCHEDULES BUILDING E & RELO: FLOOR PLAN & DOOR SCHEDULES

TOTAL DRAWINGS: 36 SHEETS



DIA DIM DIMENSION DOWN DOWNSPOUT DIVISION OF STATE ARCHITECT EXPANSION JOIN ELEVATION EPOXY FLOOR SYSTEM EXPANDED POLYSTYRENE FOAM EXPOSED STRUCTURE EGGSHELL PAINT EXPANSION/EXPOSED FIRE EXTINGUISHER CABINET FINISH FLOOR FACTORY FINISH FINISH GRADE FIRE HOSE CABINET FIN FLOWLINE FLR FOC FACE OF CONCRET FOF FACE OF FINISH FOM FACE OF MASONRY FOS FACE OF STUD FIRE RATED ASSEMBL FIRE RETARDANT TREATED FURN FURNISH/FURNITURE FOW FACE OF WINDOW FOD FACE OF DOOR GALV GALVANIZED GALVANIZED IRON GLULAM GLUE LAMINATED **GALVANIZED SHEET METAL** GYPSUM WALLBOARD WATER RESISTANT GWE HOSE BIBE HDW HARDWARE HDWD HARDWOOD HOLLOW METAL HORIZ HORIZONTAL HOUR INSUL INSULATION INTERIOR

KCPL

LAB

KEENES CEMENT PLASTER

LAMINATED MARKER BOARD

LAMINATED PLASTIC

LABORATORY

LAVATORY

ANCHOR BOLT

ACOUSTIC PANEL

ACOUSTIC TILE

ALUMINUM

ANODIZED

BUILDING

BLOCKING

CHAINLINK

CAST IRON

CENTERLINE

COLUMN

CONCRETE

CEMENT PLASTER

DRINKING FOUNTAIN

DECOMPOSED GRANITE

CERAMIC TILE

BENCH MARK

BUILT-UP ROOFING

CONSTRUCTION/COLD JOINT

CONCRETE MASONRY UNIT

BLDG

CHLK

CONC

CT

DET

ASPHALTIC CONCRETE

ABOVE FINISHED FLOOP

ACOUSTIC WALL PANEL

ABSOLUTE

REFRIGERATOR SPLASH BLOCK SOLID CORE SCHEDULE STORM DRAIN SEMI GLOSS PAIN SHEATHING SIMILAR SPECIFICATIONS SEAMLESS RESILIENT FLOORING STAINLESS STEE SOUND TRANSMISSION CLASS STD STANDARD STL STEEL STAIN STR STRUCTURAL/STRUCTURE SUSPENDED TACKBOARI TOP OF CURB TERRAZZO TOP OF GRATE TOP OF MASONR TOP OF SHEATHING TOP OF PARAPET TOP OF WALL TOP OF PAVING TOP OF STEEL TYPICAL TEMPERED GLASS **UNDER CUT** UNLESS NOTED OTHERWISE UNDERSIDE OF STRUCTURE VERTICAL VINYL COMPOSITION TILE VINYL TILE VINYL SHEET FLOORIN VINYL WALL COVERING WATERCLOSET WIREGLASS WATER HEATER WOOD VENEER WELDED WIRE FABRIC

FACTORY FINISHED PREFINISHED

ARCHITECTURAL ABBREVIATIONS

NTS

MAXIMUM

MCB METAL CORNER BEAD

MANHOLE

MINIMUM

METAL

MEMBERS

MISCELLANEOUS

MASONRY OPENING

NOT IN CONTRACT

**OUTSIDE DIAMETER** 

OWNER FURNISHED/APPLICABLE

PORTLAND CEMENT PLASTER

PAINTED INSULATION FACING

OVERFLOW DRAIN

OPPOSITE HAND

PLANTER AREA

PREFINISHED

PLASTER

PLYWOOD

**OUARRY TILE** 

RUBBER BASE

ROOF DRAIN

REFERENCE

REQUIRED

ROOM

REINFORCING

ROUGH OPENING RESILIENT BASE

PANIC HARDWARE

PLASTIC LAMINATE

PLATE/PROPERTY LINE

PAINTED SHEET METAL

MECH MECHANICAL

WIFI HUB DEVICE

ROOM IDENTIFICATION GATE IDENTIFICATION CONSTRUCTION KEY NOTE XX DEMOLITION KEY NOTE m

UPGRADES @ VARIOUS DISTRICT SITES

MORONGO UNIFIED SCHOOL DISTRICT

WIRELESS ACCESS POINT TO BE PROVIDED AND MOUNTED TO EXISTING CEILING. CONNECT (1) WIRELESS ACCESS POINT TO EXISTING CAT 5/6 FUTURE ALREADY IN PLACE OR IN THE ABSENCE THEREOF, ROUTE (1) CAT 6 FROM WIRELESS ACCESS POINT TO ROUTING WHERE POSSIBLE (CONDUITS/LOOMS) OR EXTEND NEW " CONDUIT AS NEEDED WHERE EXISTING CONDUIT IS NOT AVAILABLE AND REQUIRED BY THE DISTRICT. UTILIZE SPECIFIC THE PORTS AS PER DISTRICT'S STANDARD CONFIGURATION PROVIDED PRIOR TO CONSTRUCTION START. VERIFY TYPE OF WIRELESS ACCESS POINT AND ETHERNET CABLING WITH DISTRICT

REPRESENTATIVE PRIOR TO CONSTRUCTION START.

<u>ARCHITECT</u> RUHNAU CLARKE ARCHITECTS

3775 10TH STREET RIVERSIDE, CA 92501 TEL: (951) 684-4664 CONTACT: ROGER CLARKE, PRINCIPAL EMAIL: rclarke@ruhnauclarke.com

9783 E. MAPLEWOOD AVENUE ENGLEWOOD, CO 80111 MOBILE: (321) 330-6851 CONTACT: STEVEN PELLOT TEL: steven.pellot@assaablov.com

PROJECT No.: 1-49-83

**GENERAL NOTES** 

PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF

THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH

CONTRACTOR WILL BE REQUIRED TO PROVIDE AND INSTALL ALL EQUIPMENT AND RELATED ITEMS AS

TO VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO BID AND TO DETERMINE THE WORK

SHOWN IN THESE DOCUMENTS AND AS SPECIFIED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING CONDITIONS ON THE JOB

CONDITIONS ARE INDICATED AS A RESULT OF INFORMATION SHOWN ON AVAILABLE DOCUMENTS, ANY

DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS. EXISTING

THE EXISTENCE OR LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, OR STRUCTURE SHOWN ON

THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR

KNOWLEDGE, EXISTING UTILITIES ARE AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL

ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF ALL UNDERGROUND

UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES SHOWN

UNDER NO CIRCUMSTANCE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR

ALL STANDARDS, MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE STATE BUILDING CODES,

WHERE ANY CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF FEDERAL AND STATE CODES,

ITEMS MARKED "TYP." OR "TYPICAL" SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY INDICATED

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF REQUIREMENTS BETWEEN THE

. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION,

DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED

WORK WILL NOT COMPLY WITH TITLE 24, CCR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE

GRADING PLANS DRAINAGE IMPROVEMENTS, ROAD & ACCESS REQUIREMENTS AND ENVIRONMENTAL

ARCHITECT REGARDING ANY DETERIORATION OR NON-COMPLYING CONSTRUCTION AND SHALL NOT

EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE

PROCEED WITH THE WORK UNTIL CLARIFICATION HAS BEEN ISSUED BY THE ARCHITECT.

HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES

DISCIPLINES BETWEEN DRAWING AND SPECIFICATION IN ORDER TO ENSURE THAT ALL ITEMS SHOWN

CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT REGARDING ANY DISCREPANCIES, ERRORS

OMISSIONS OR INCONSISTENCIES AND SHALL NOT PROCEED WITH THE WORK UNTIL CLARIFICATION

REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY

IN RELATIONSHIP TO ONE ANOTHER OR SHOWN IN MULTIPLE LOCATIONS ARE IN AGREEMENT. THE

ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, SEQUENCE, TECHNIQUES OF

THE CONTRACTOR SHALL COMPLY WITH CALIFORNIA BUILDING CODE AND CALIFORNIA FIR

CODE, CHAPTER 33 FOR FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.

. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.)

SITE PRIOR TO THE START OF ANY WORK, NOTIFY THE ARCHITECT IMMEDIATELY OF ANY

DAMAGE TO EXISTING CONDITIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADEQUACY AND SAFETY OF THE

DESIGN/ERECTION OF BRACING, SHORING, TEMPORARY SUPPORTS AND SCAFFOLDING.

OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES.

NECESSARY TO COMPLETE THE PROJECT.

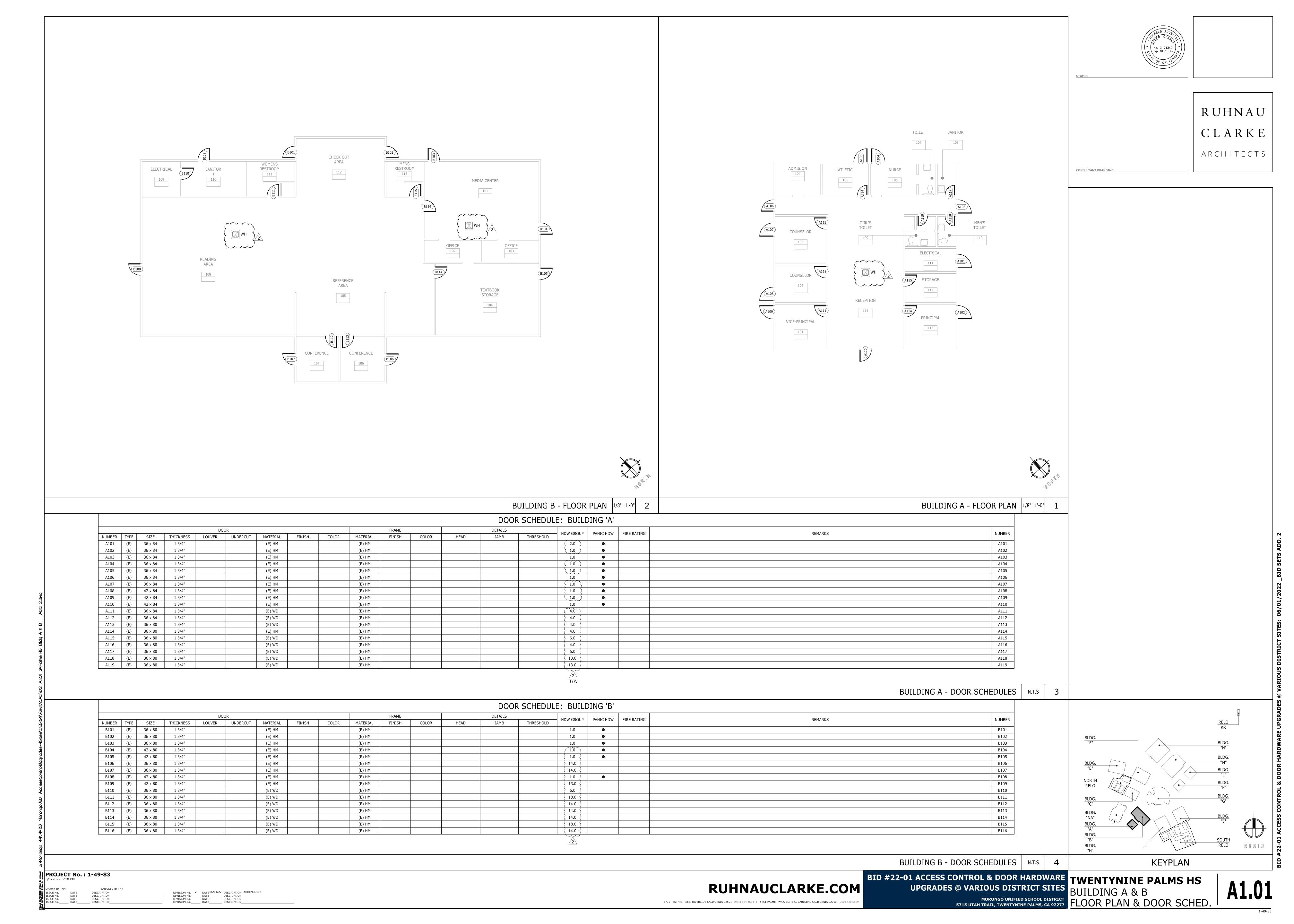
ORDINANCES, REGULATIONS, AND LAWS.

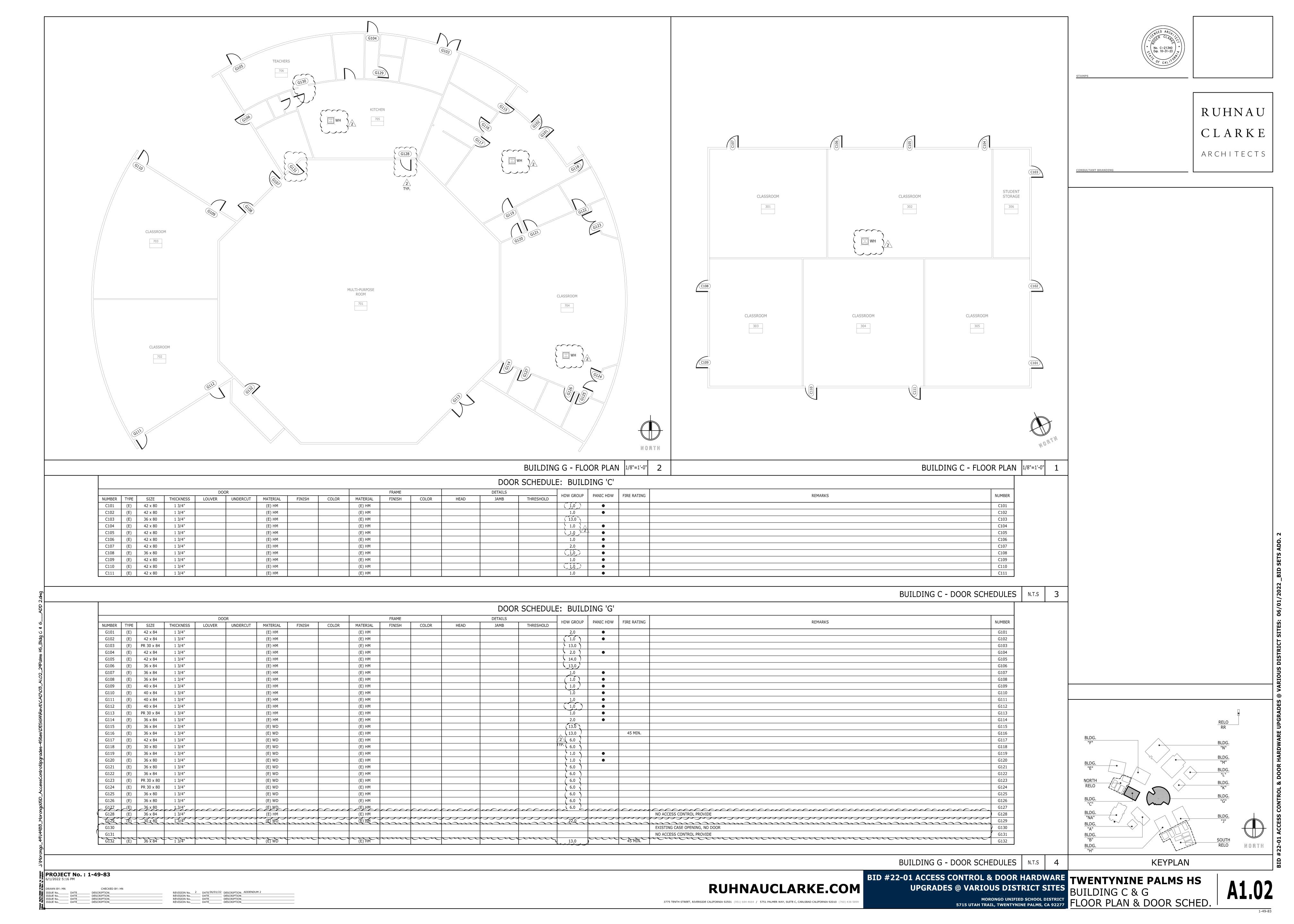
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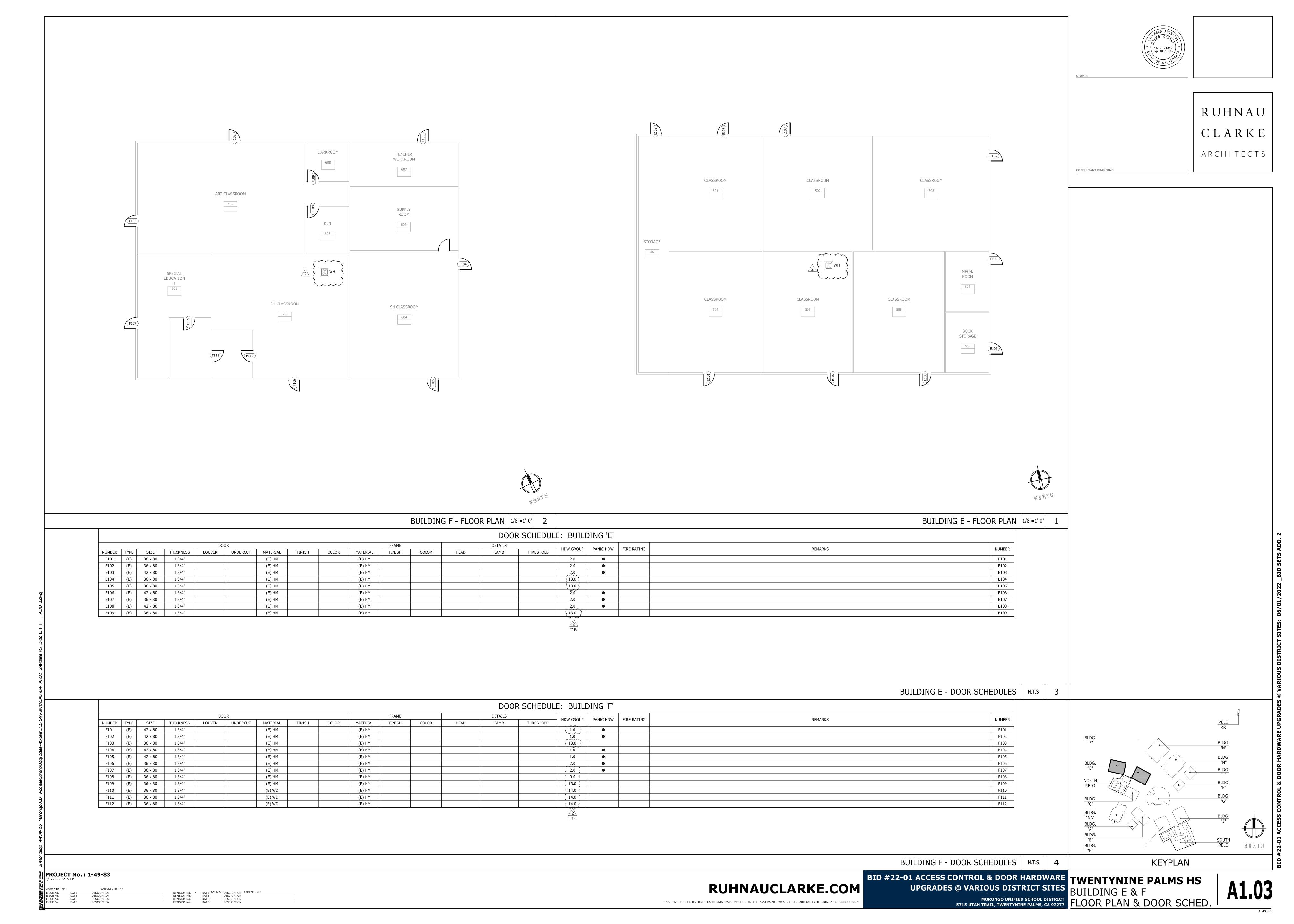
RUHNAUCLARKE.COM

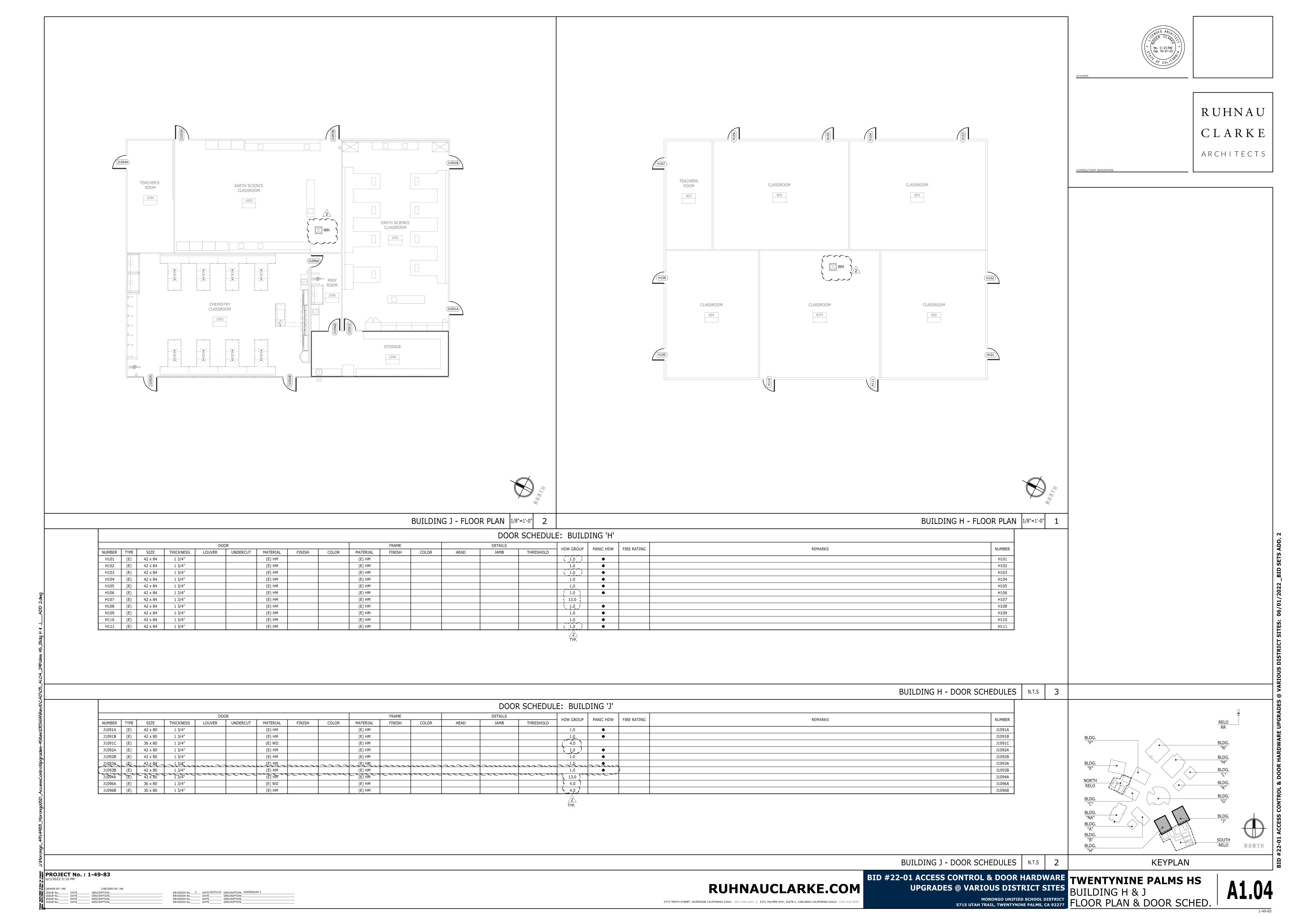
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5895

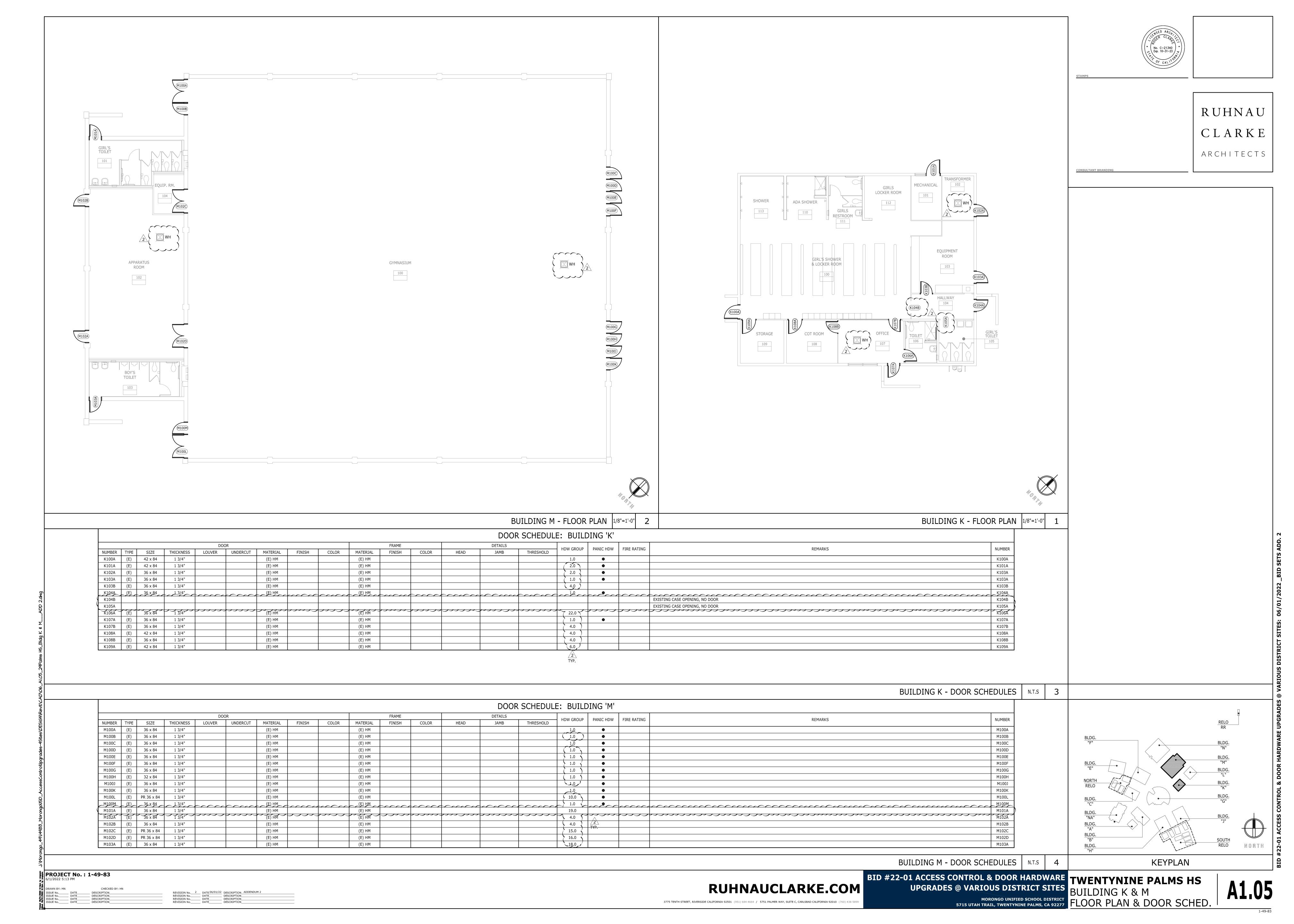
BID #22-01 ACCESS CONTROL & DOOR HARDWARE -**UPGRADES @ VARIOUS DISTRICT SITES** 

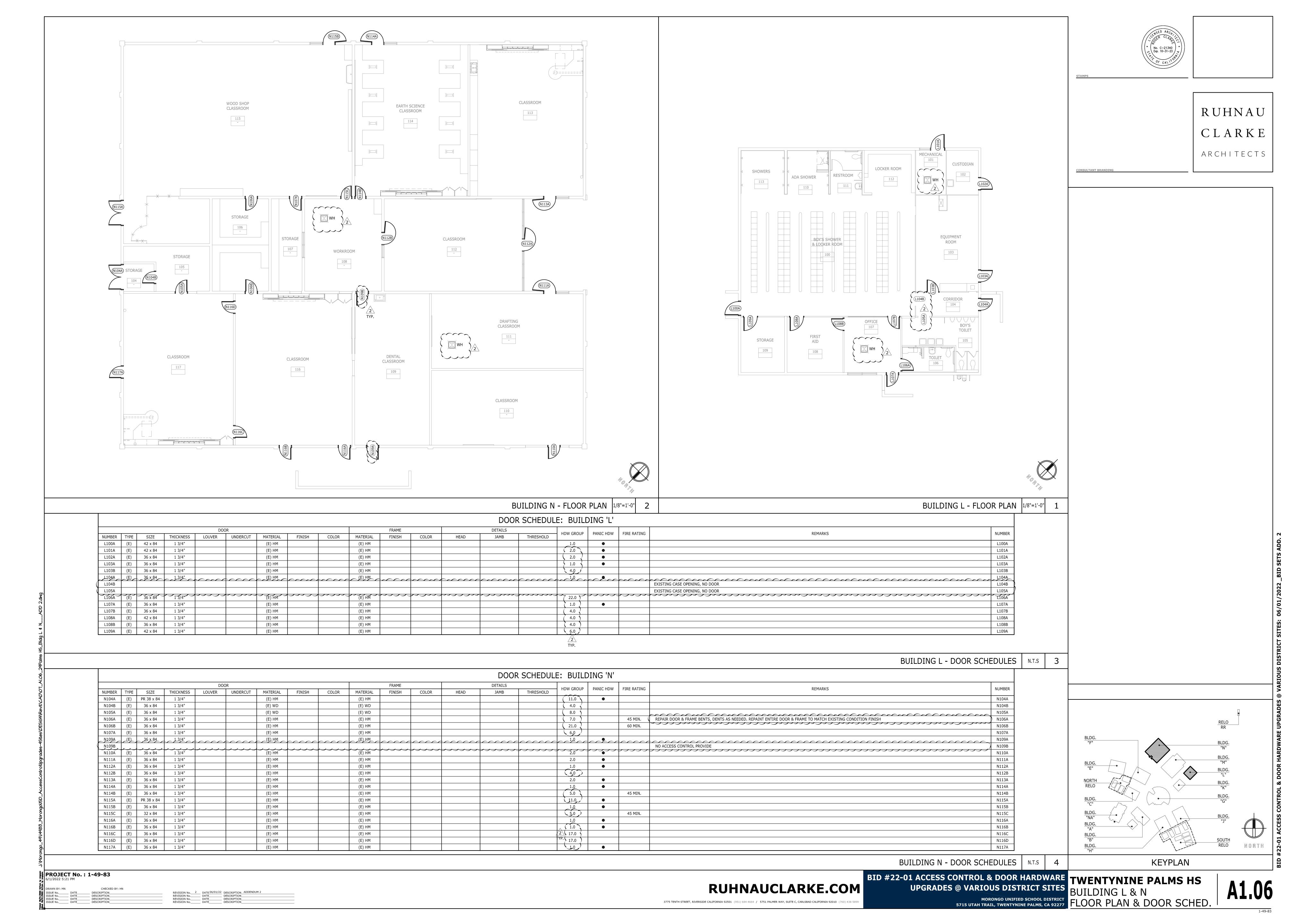


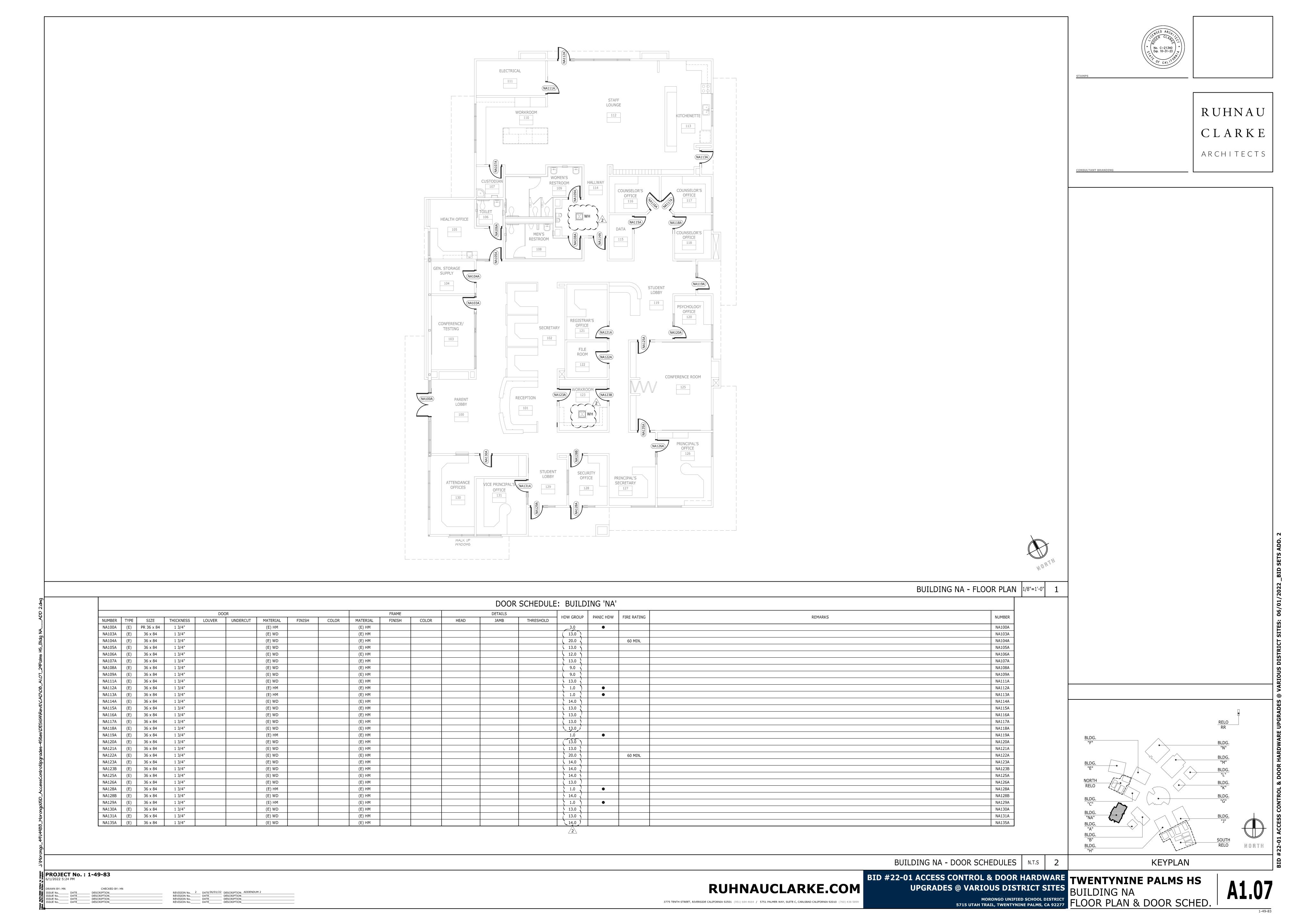


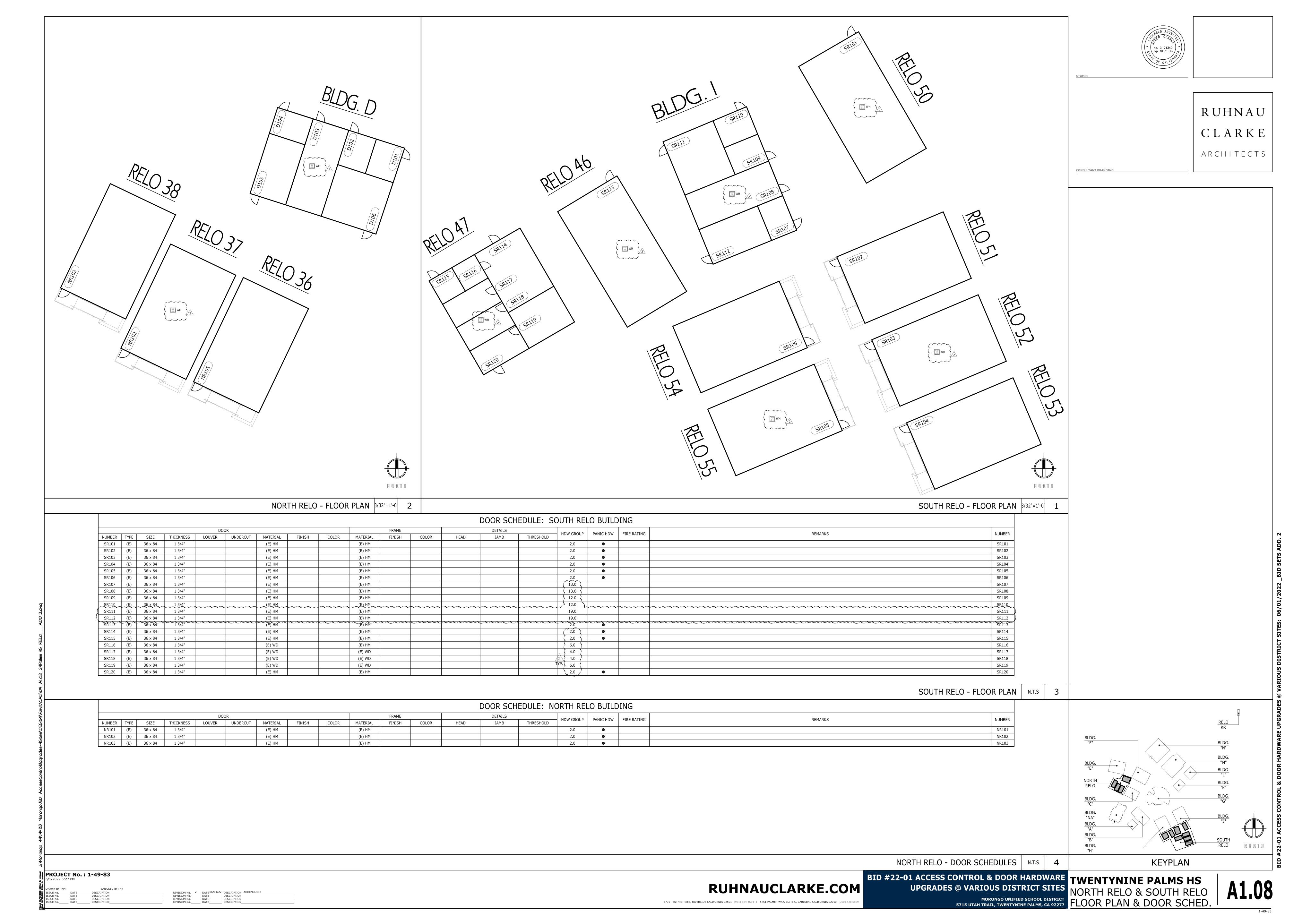


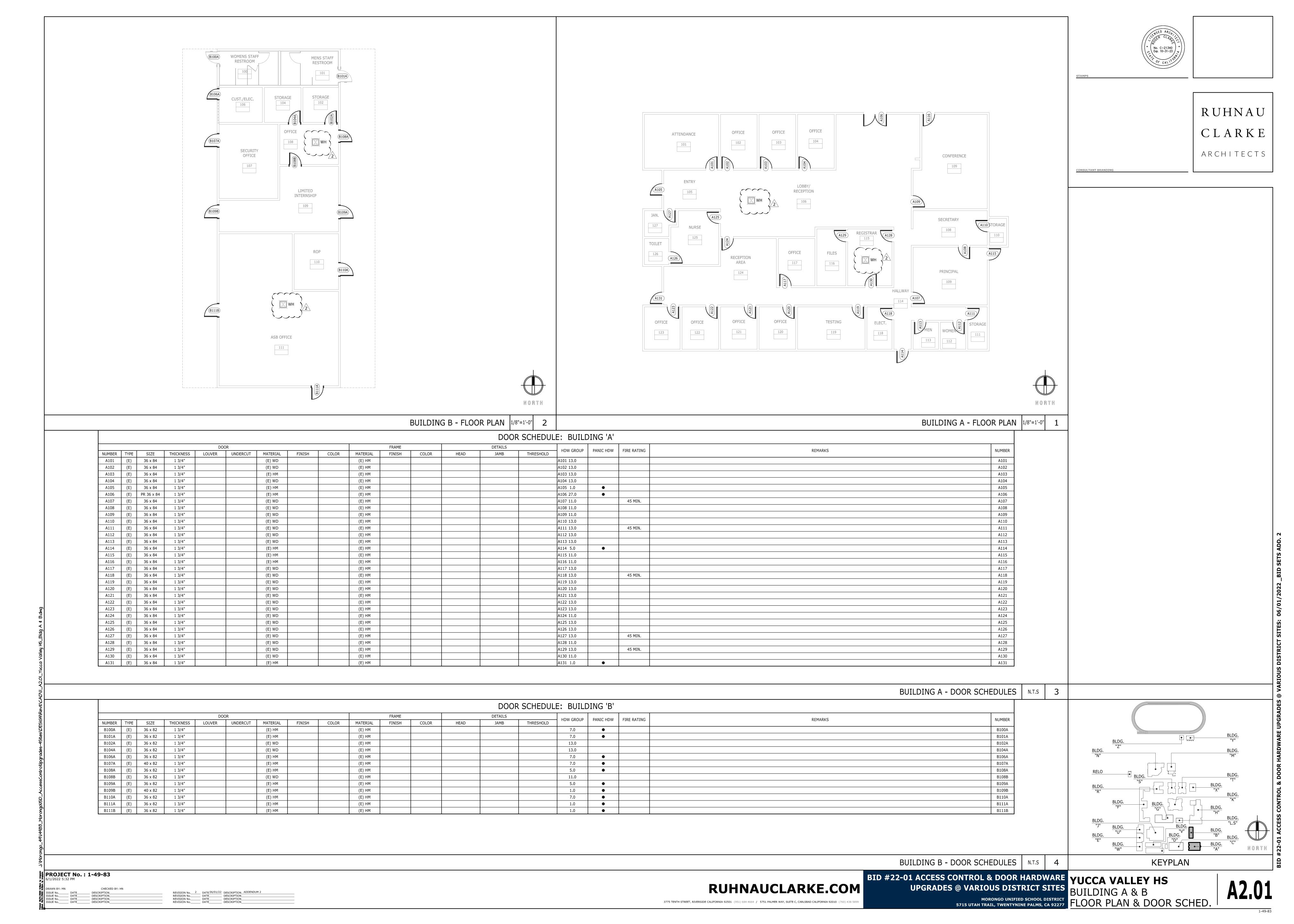


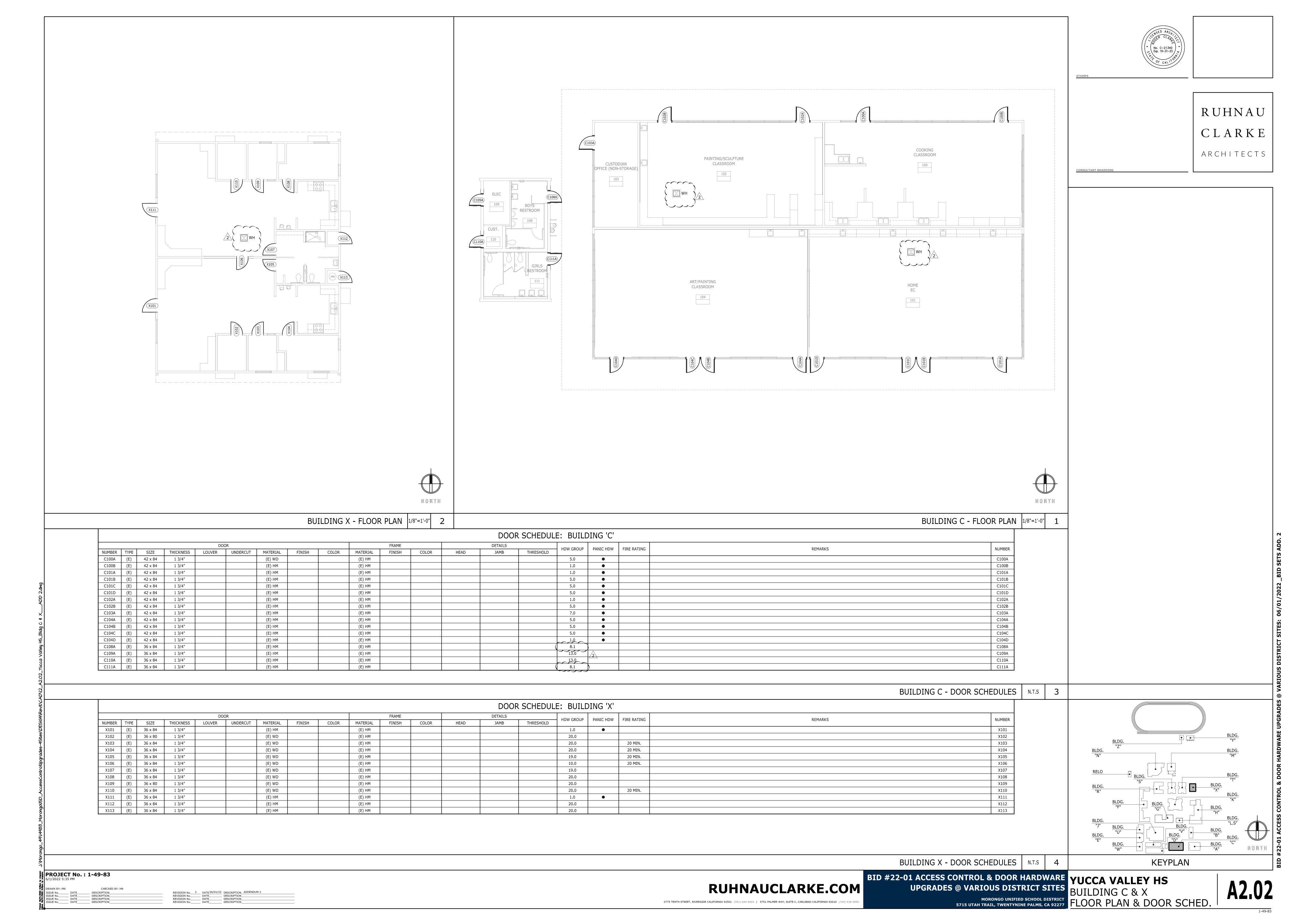


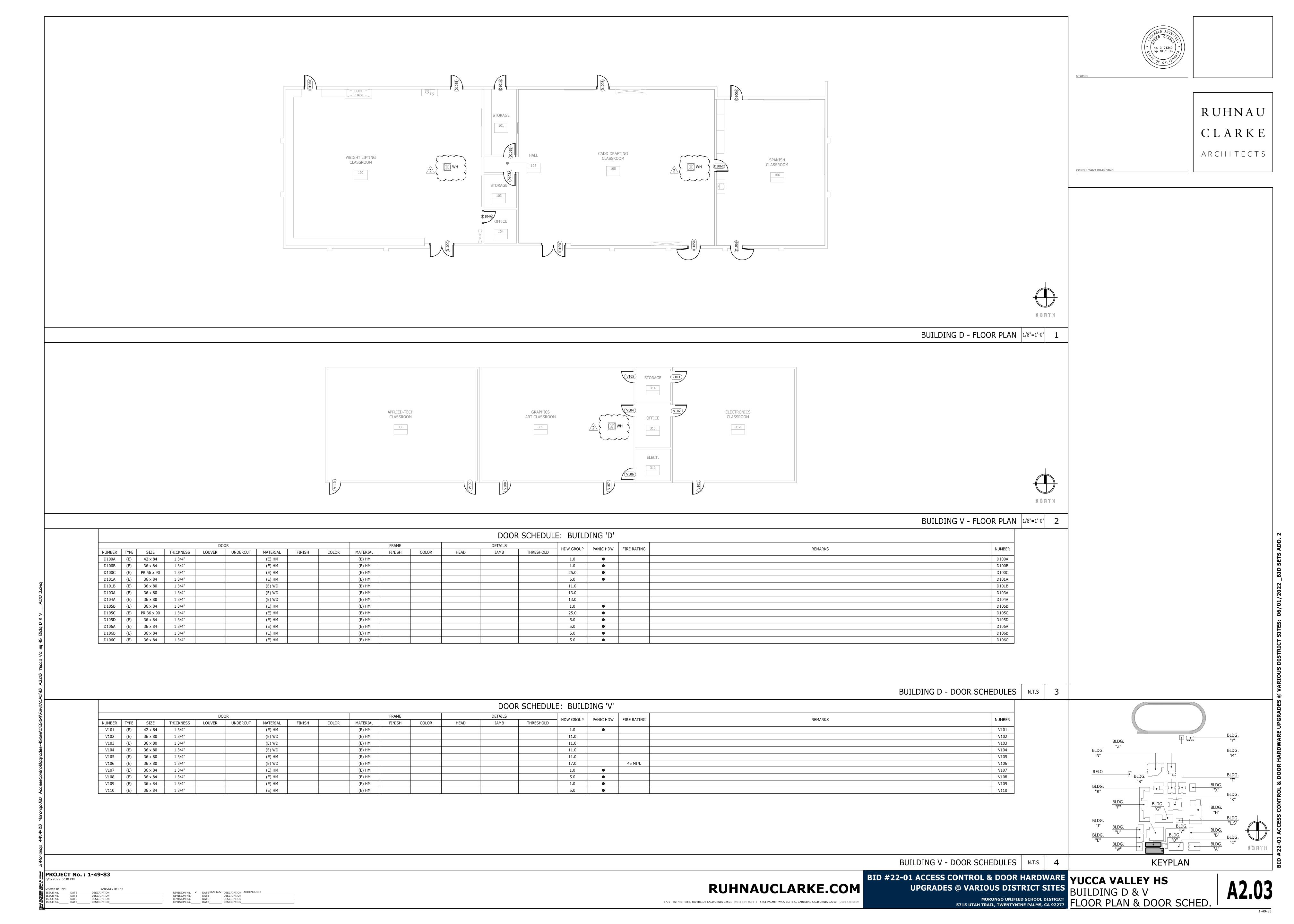


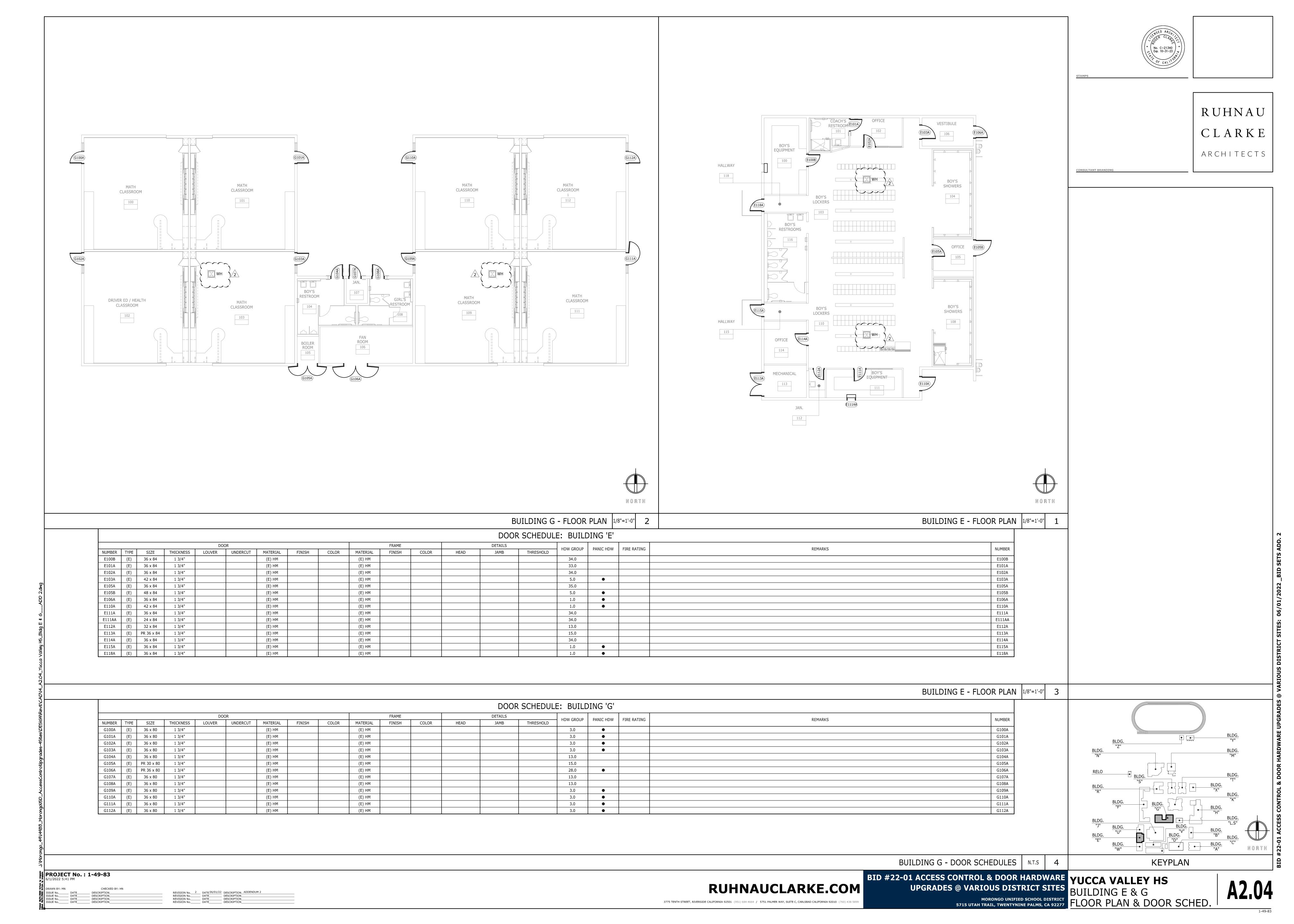


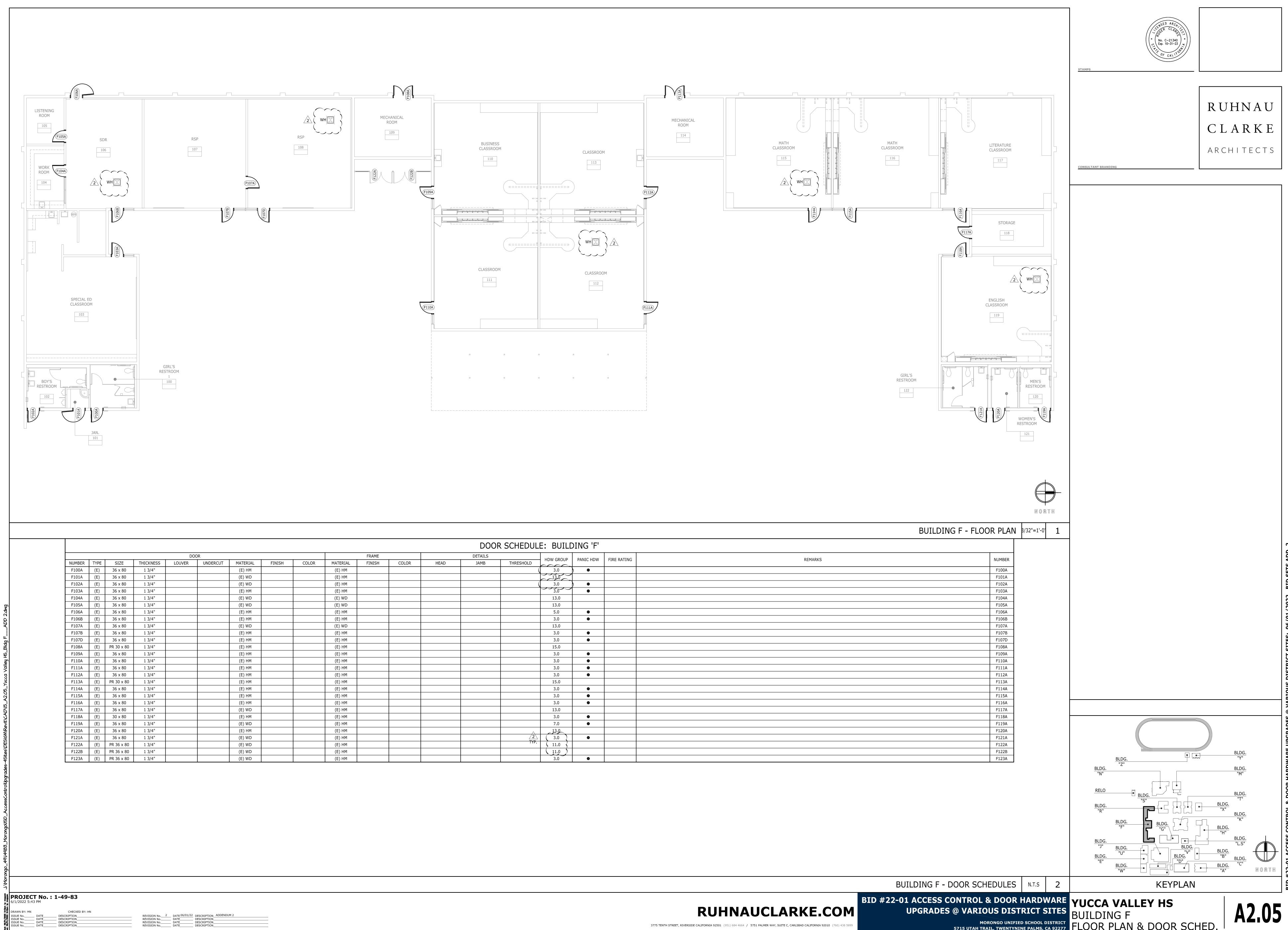




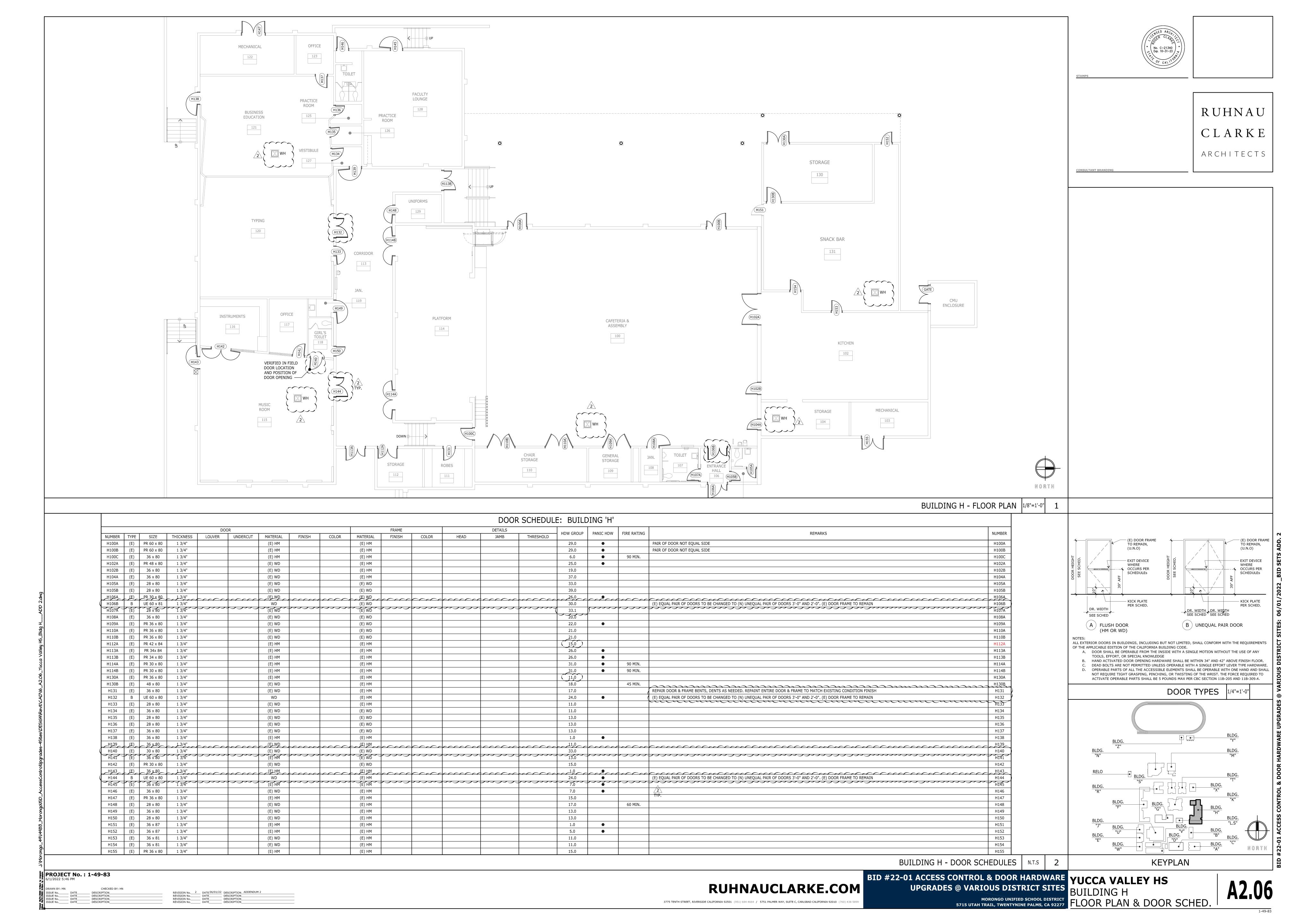


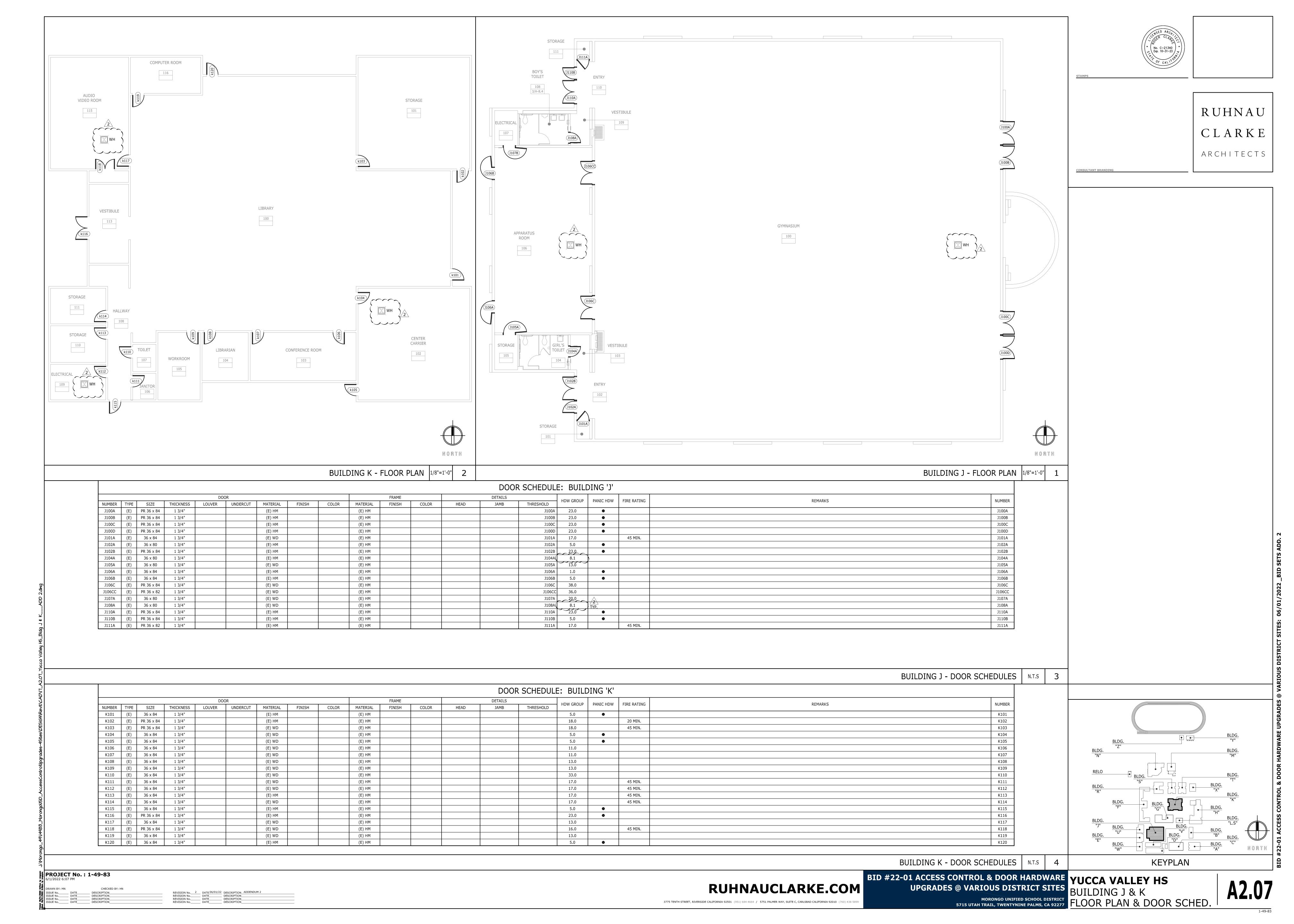


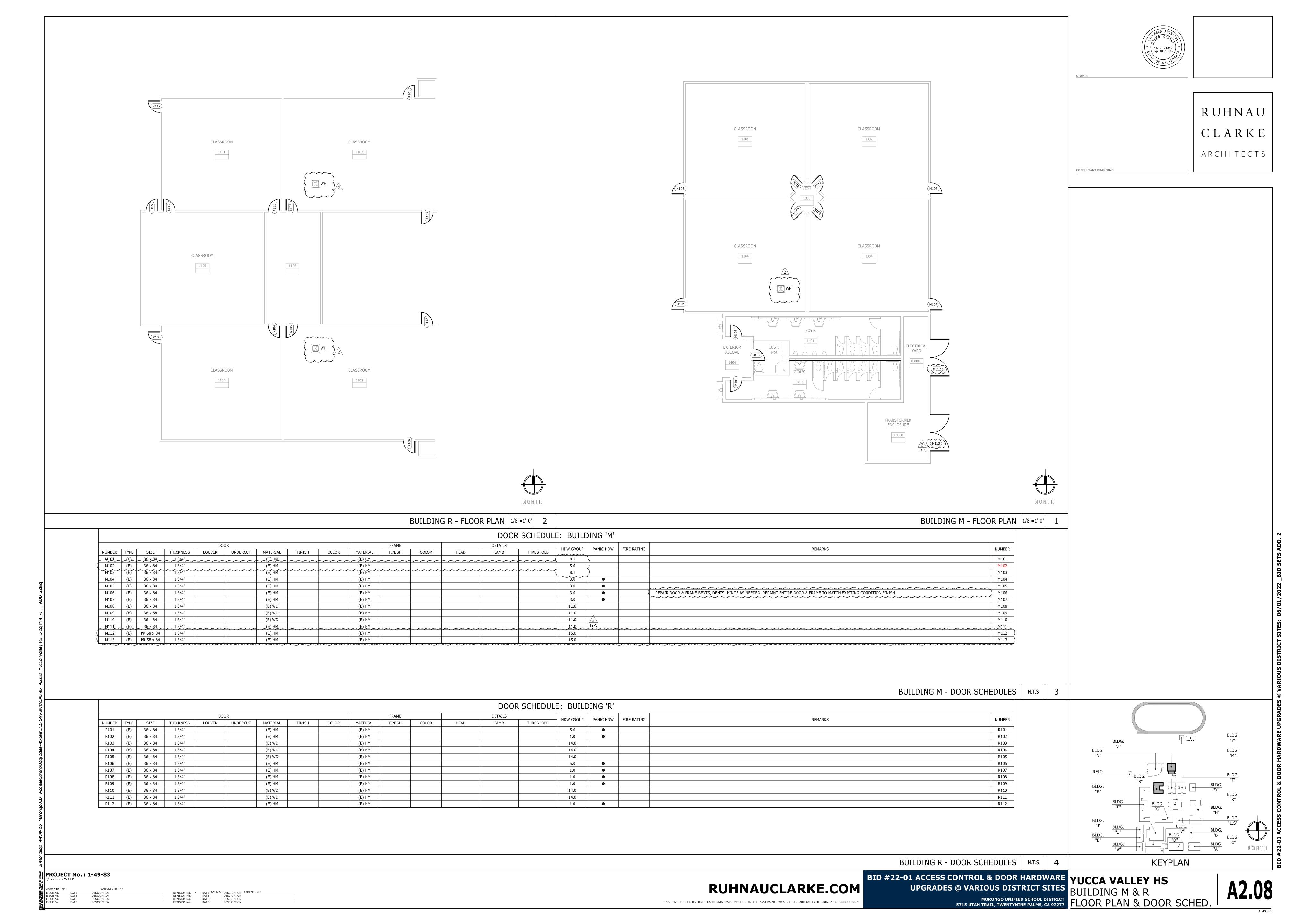


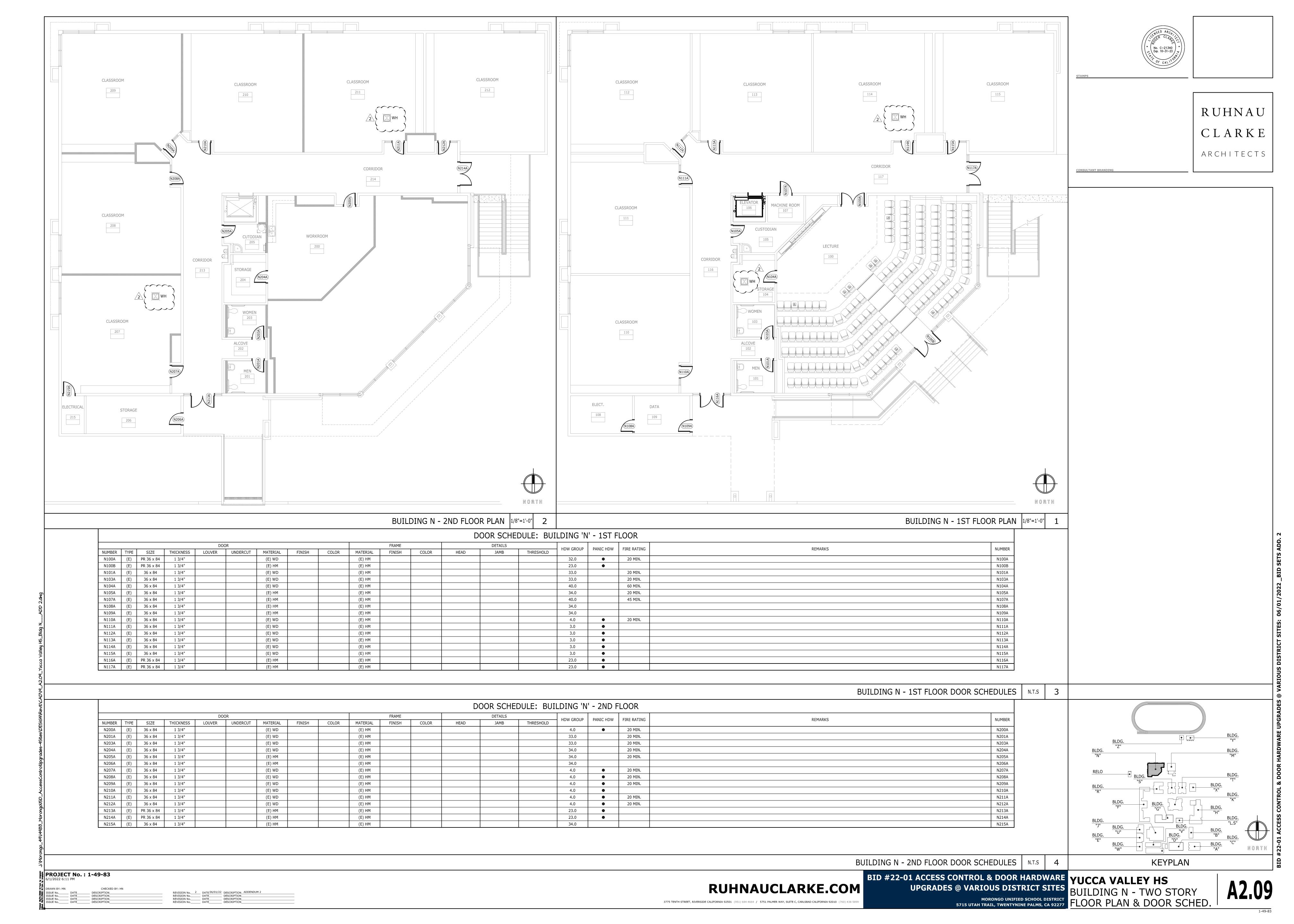


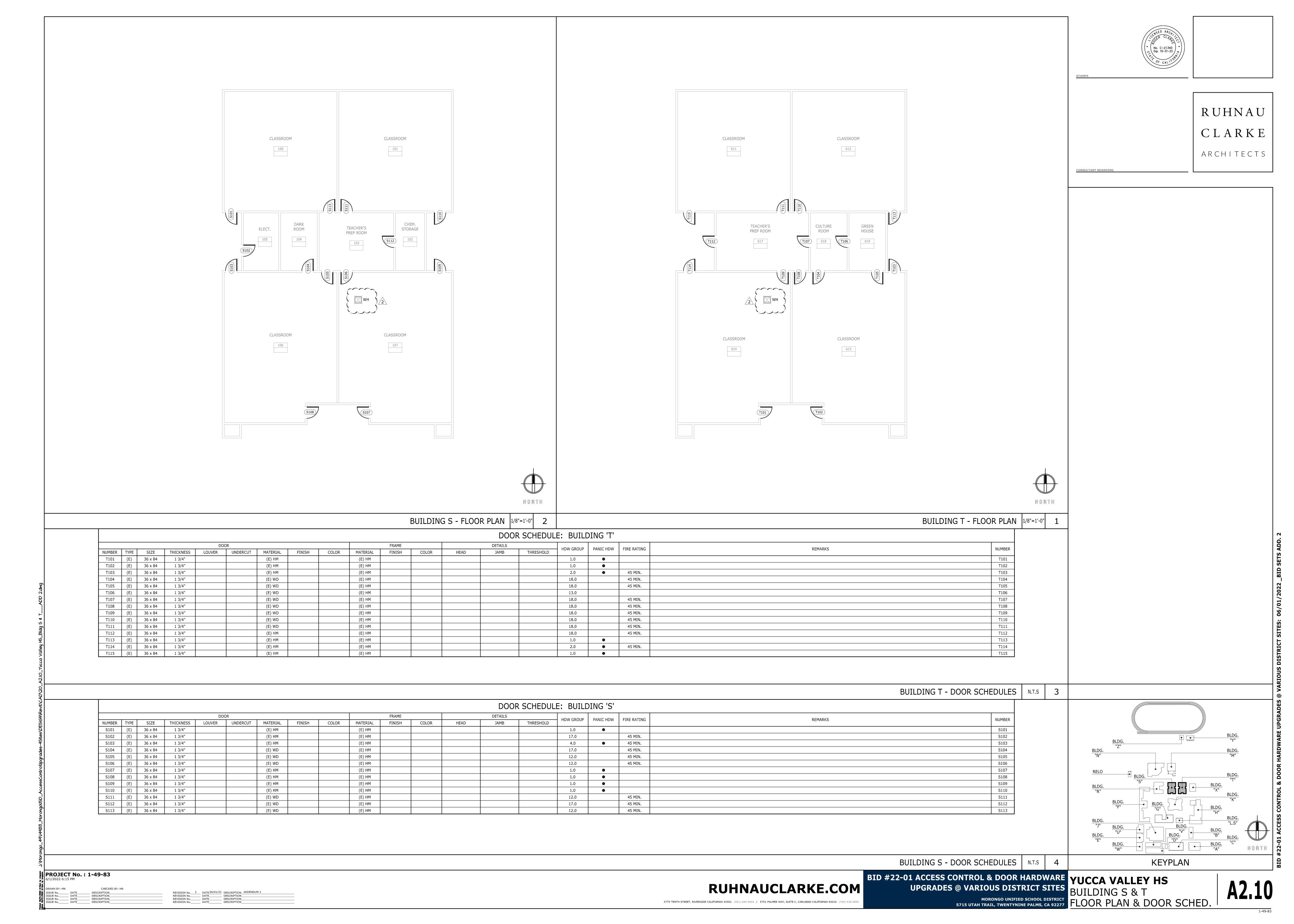
5715 UTAH TRAIL, TWENTYNINE PALMS, CA 92277

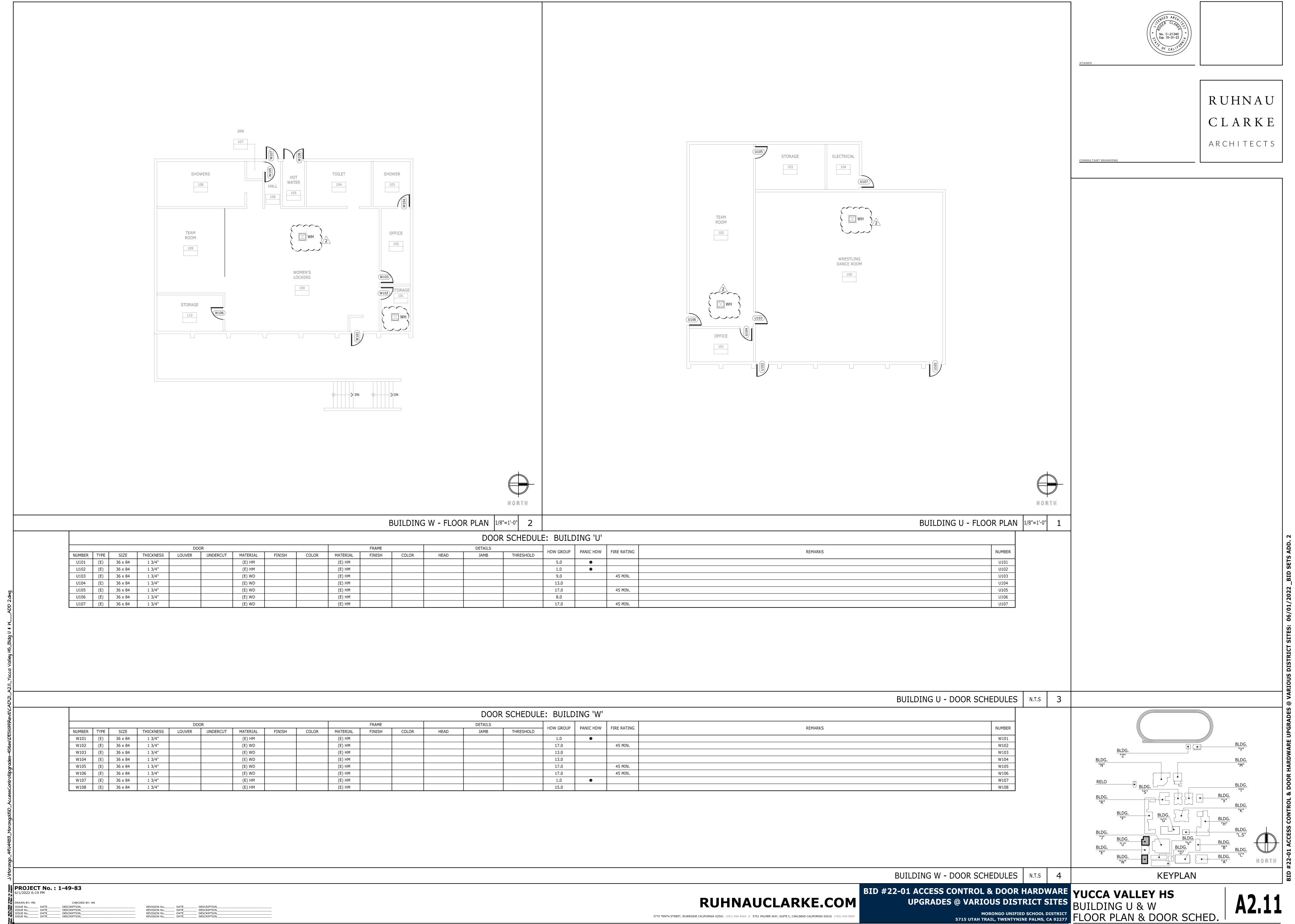


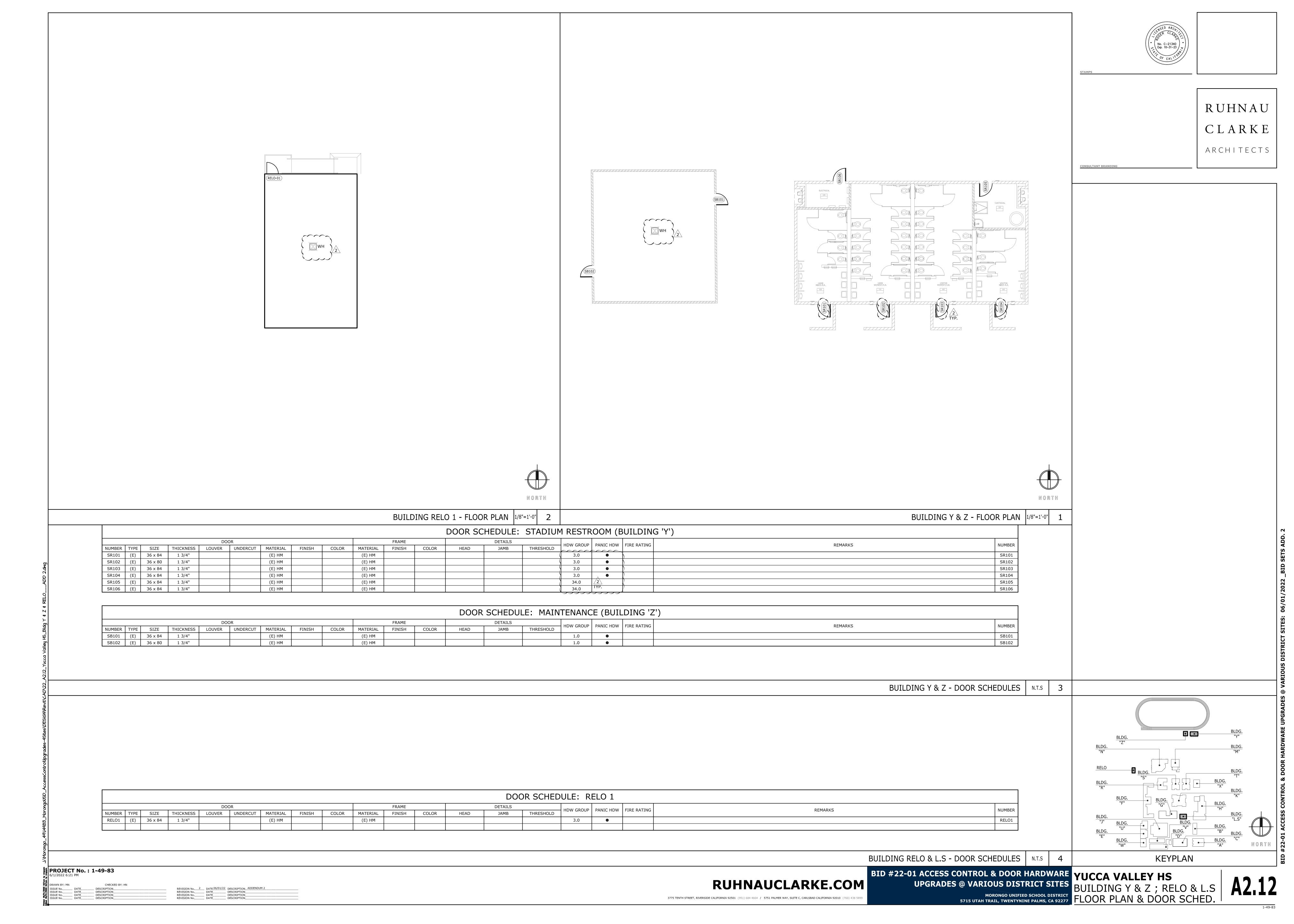


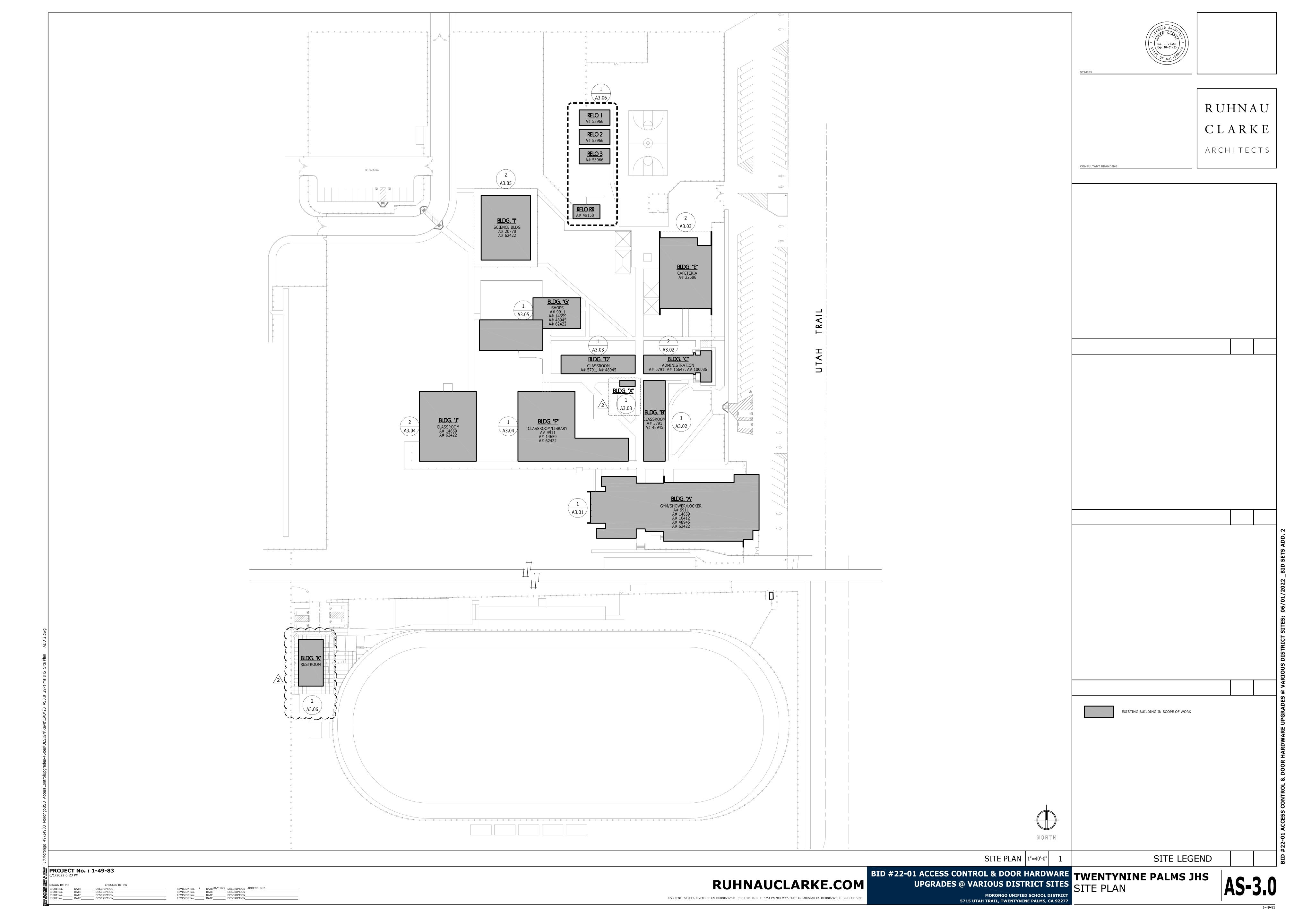


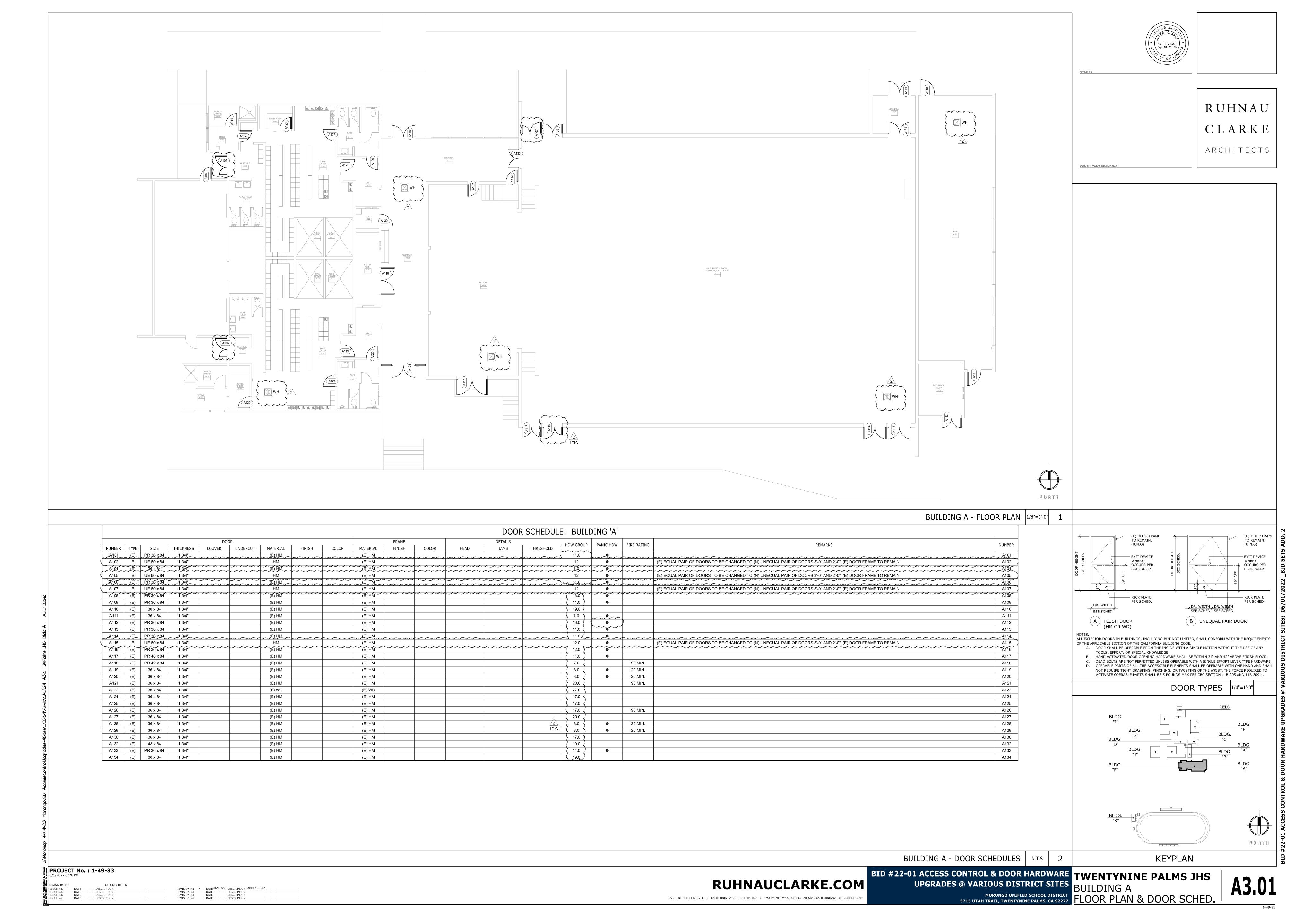


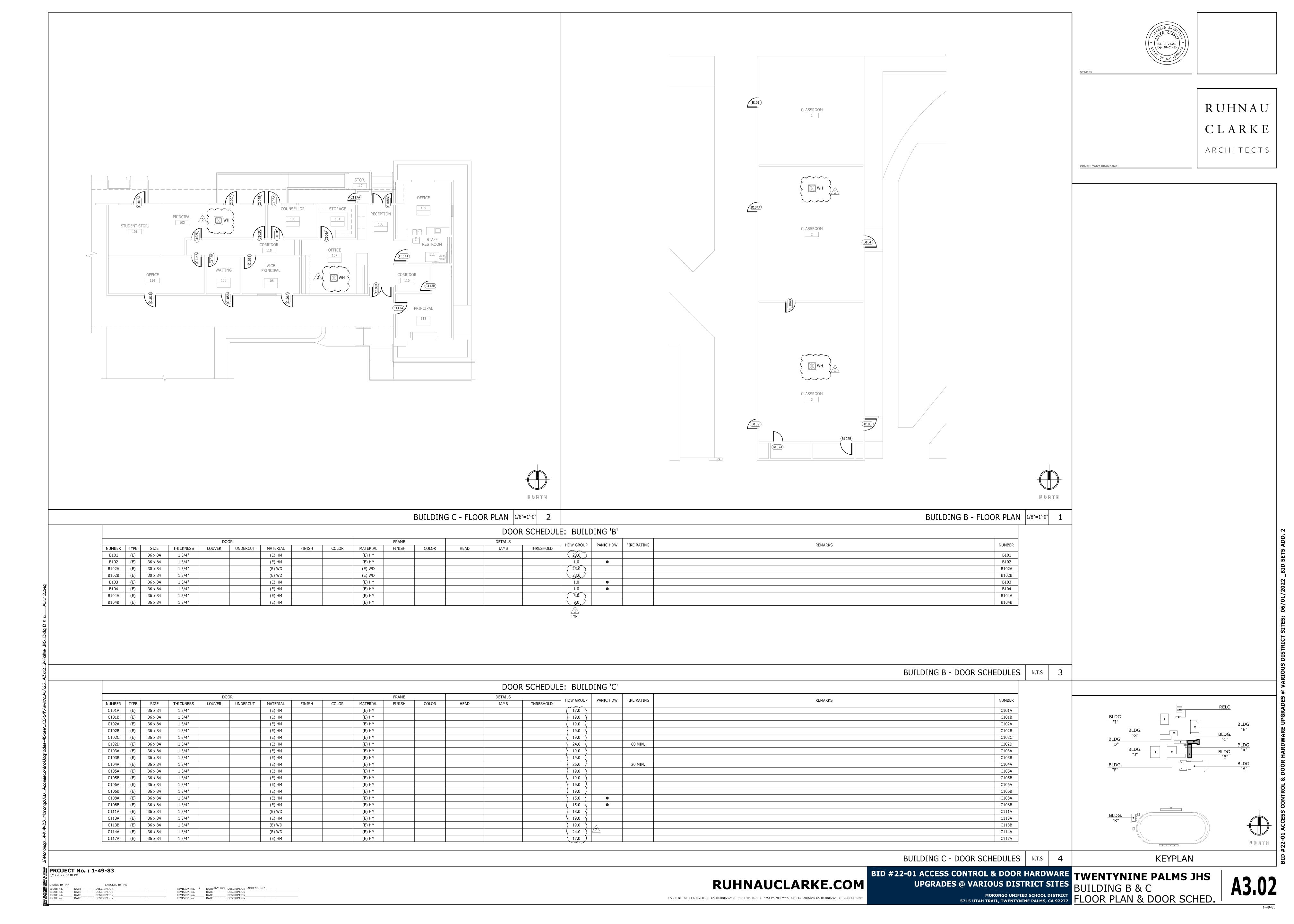


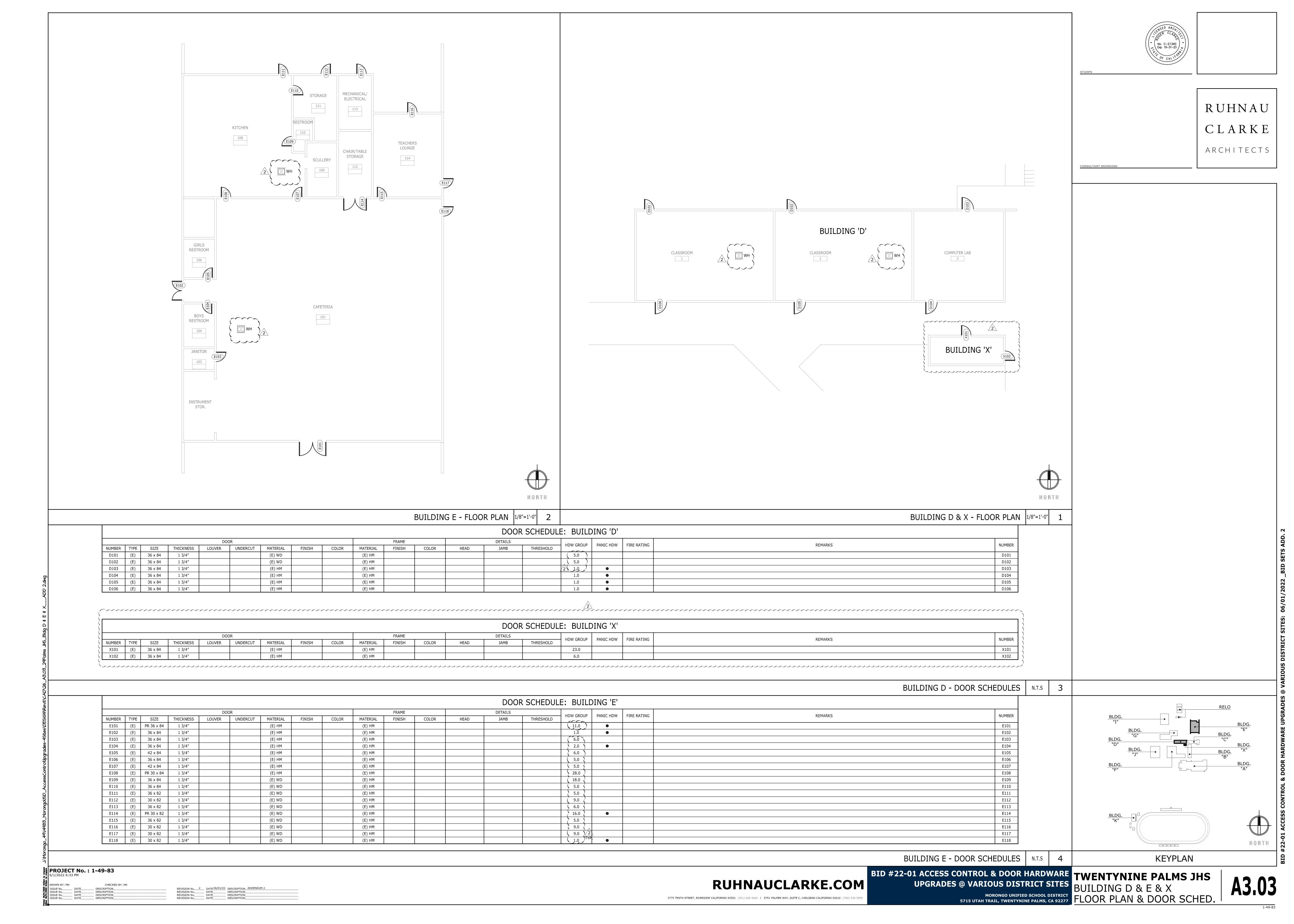


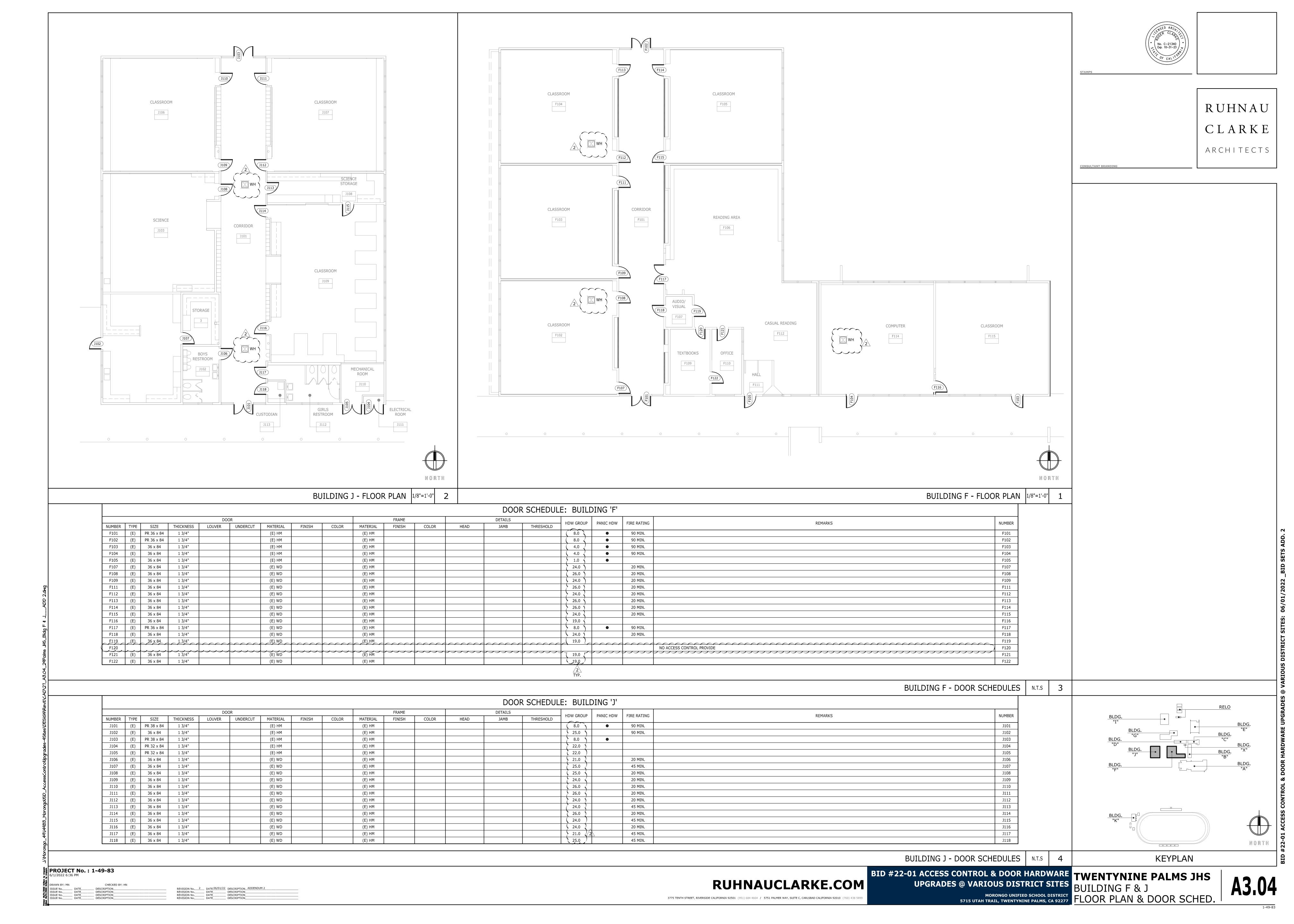


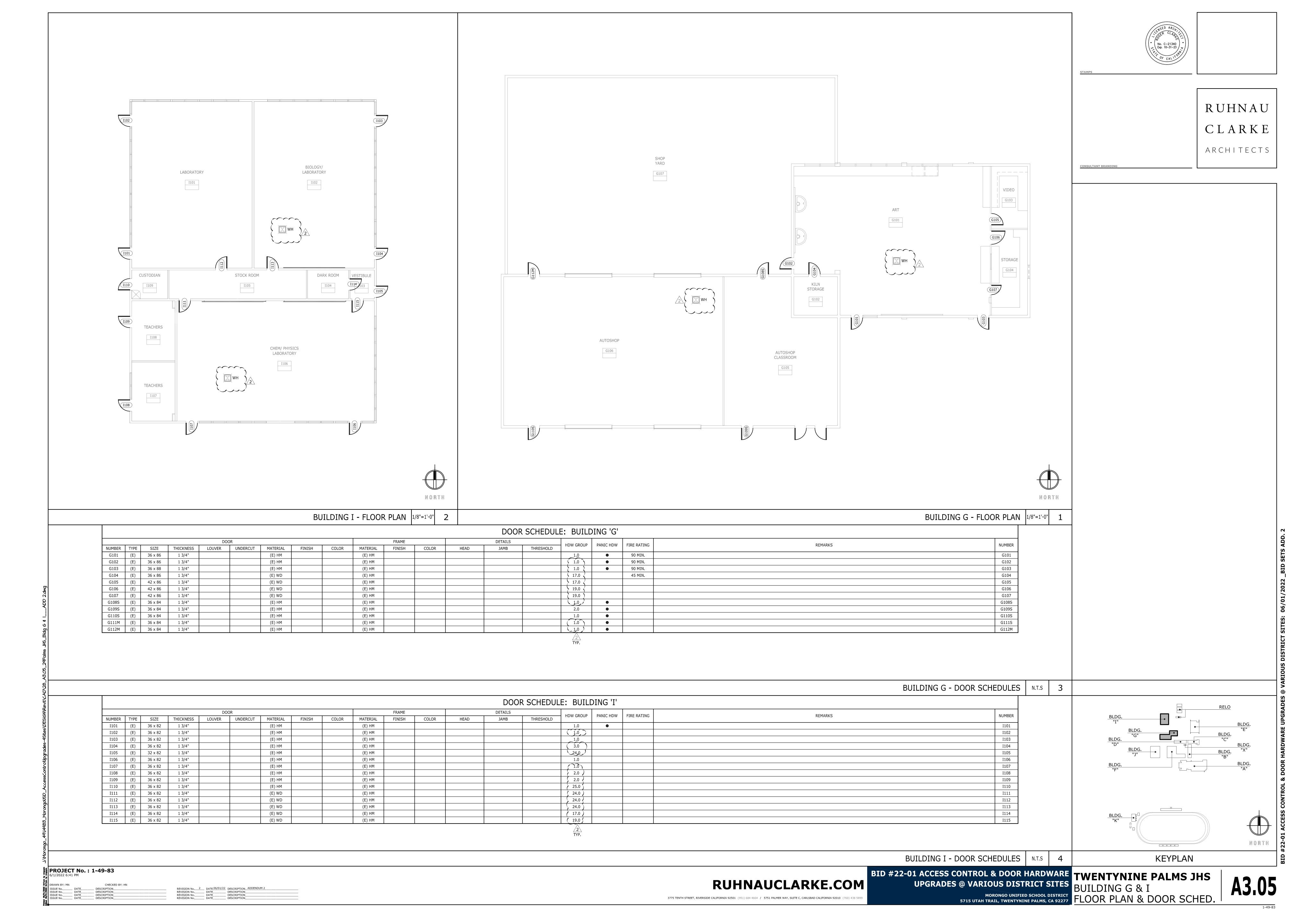


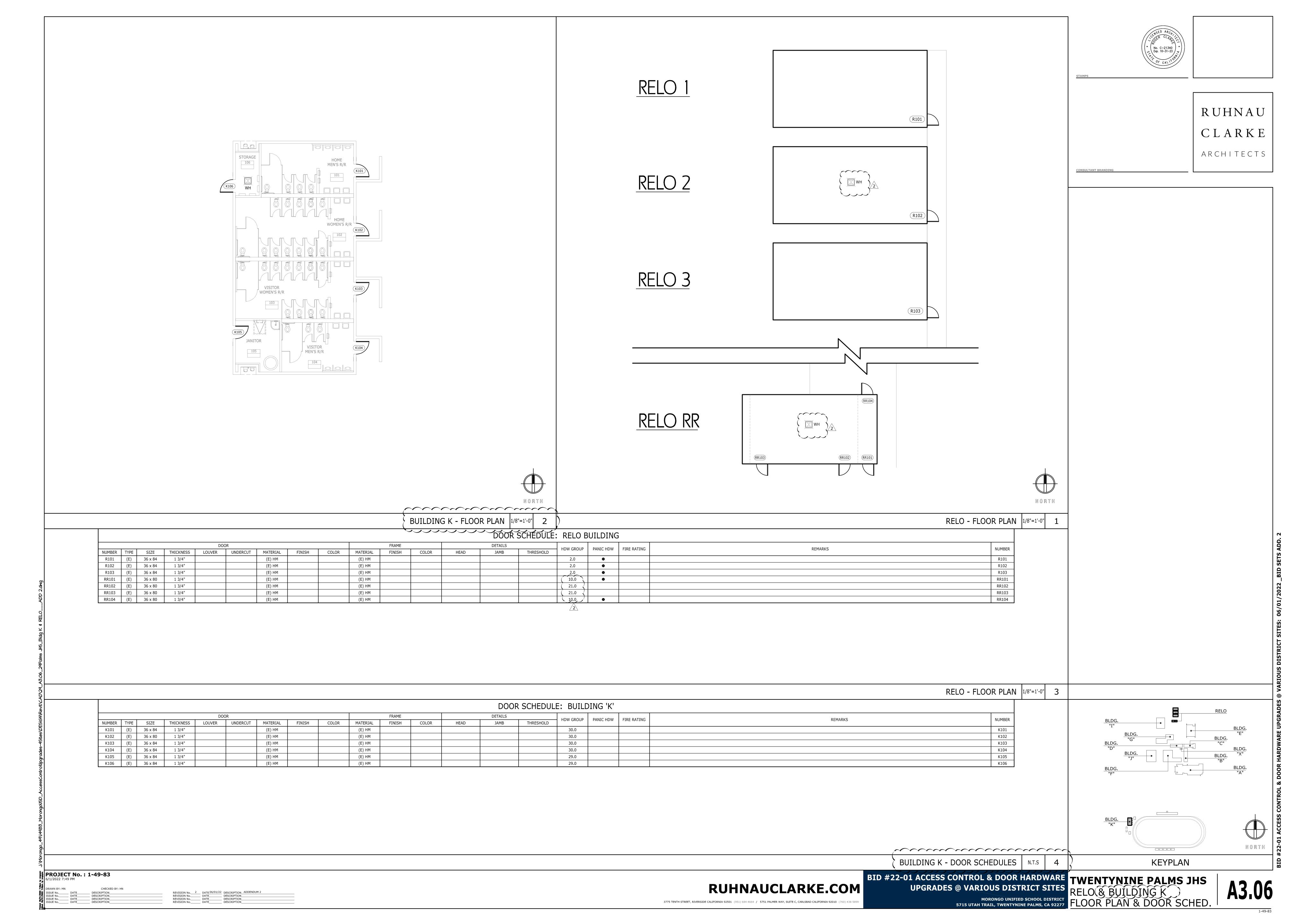


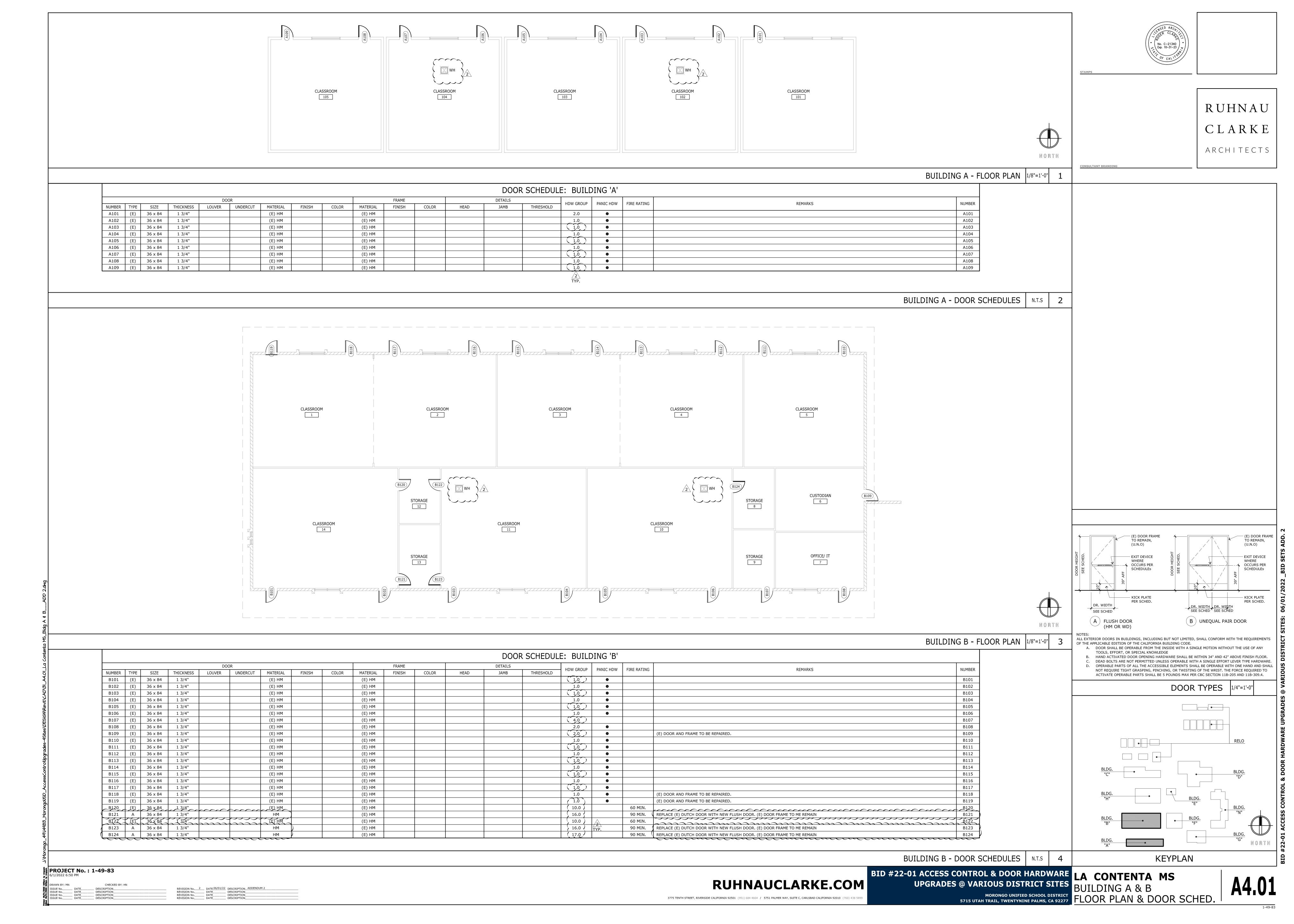


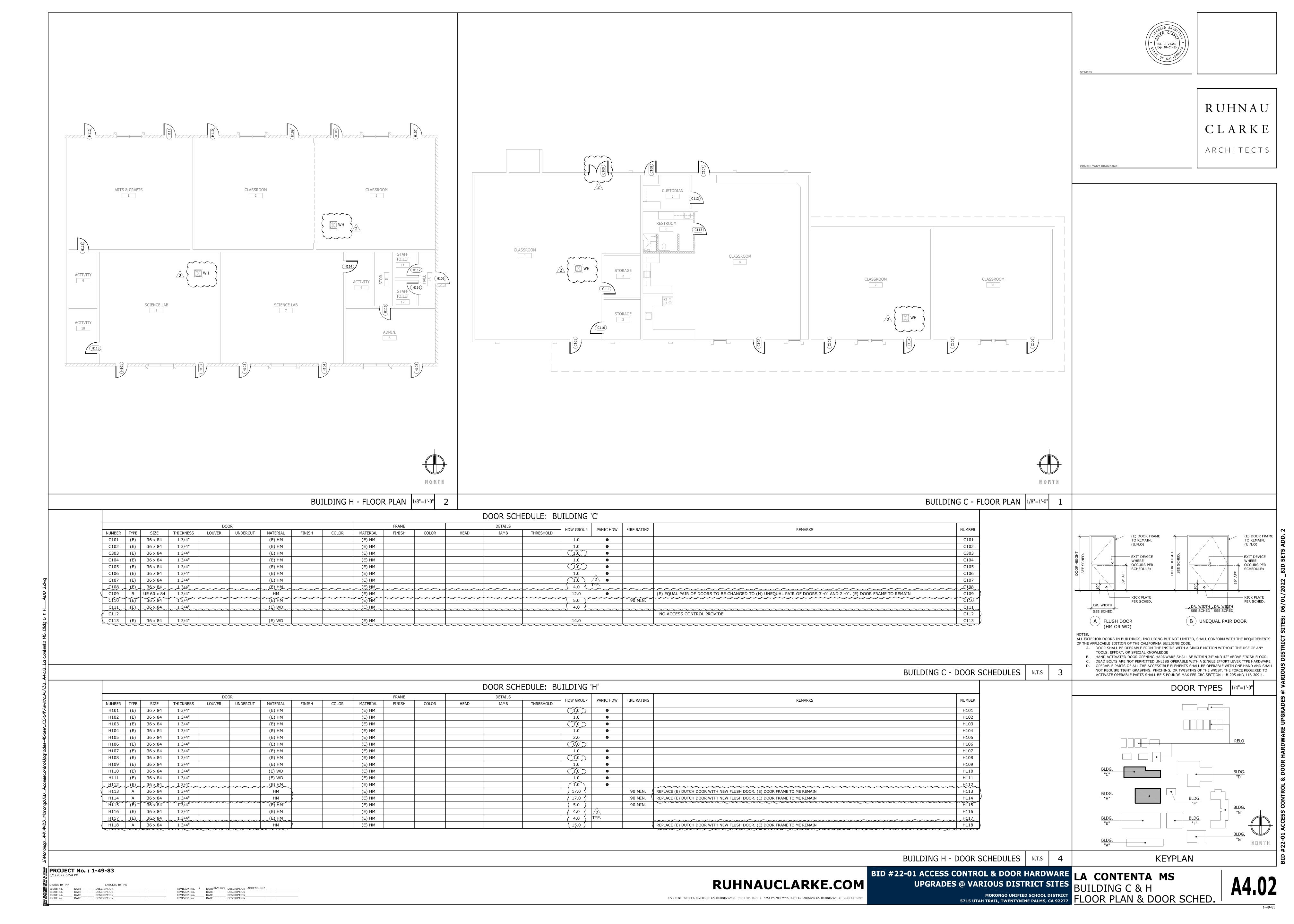


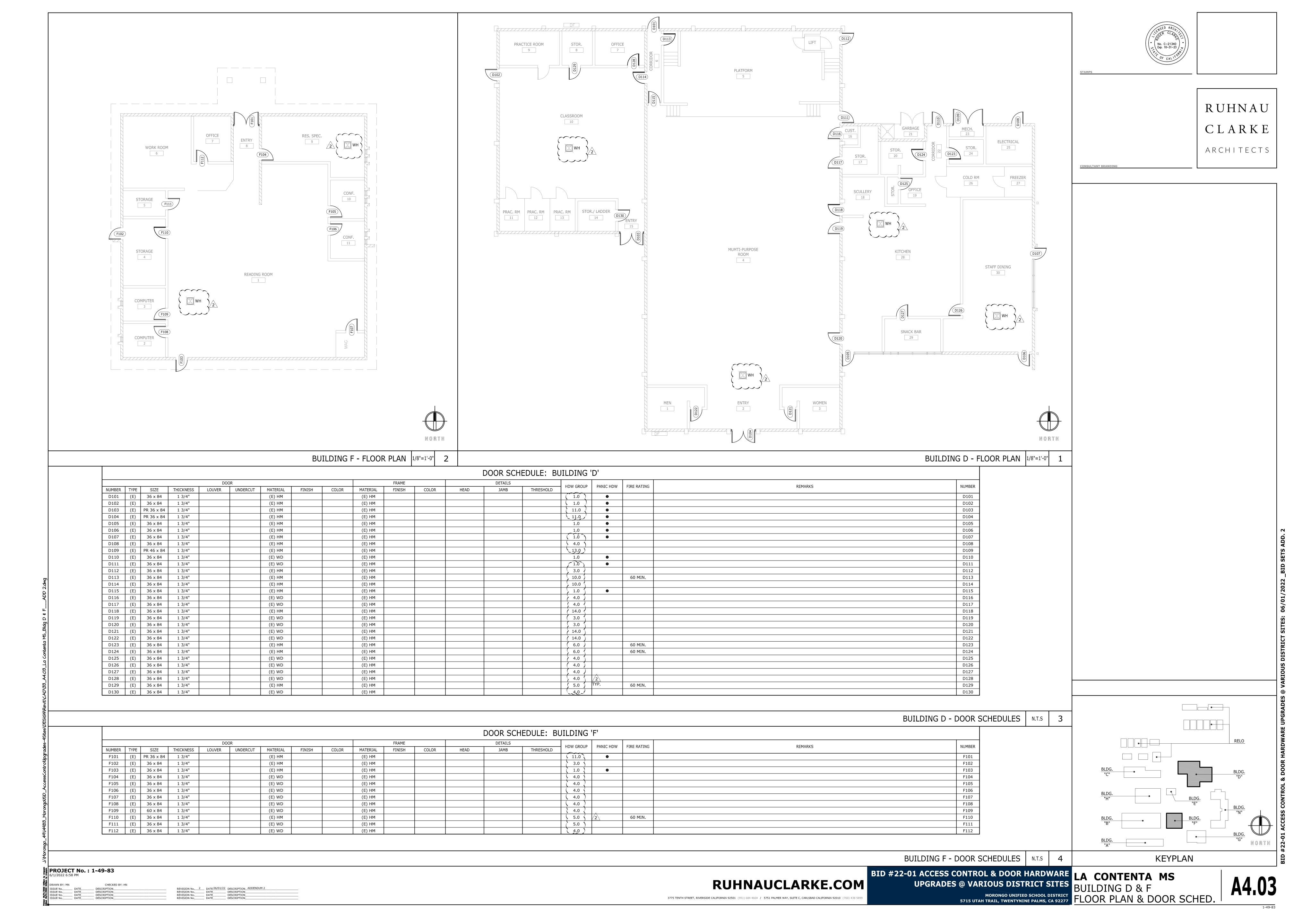


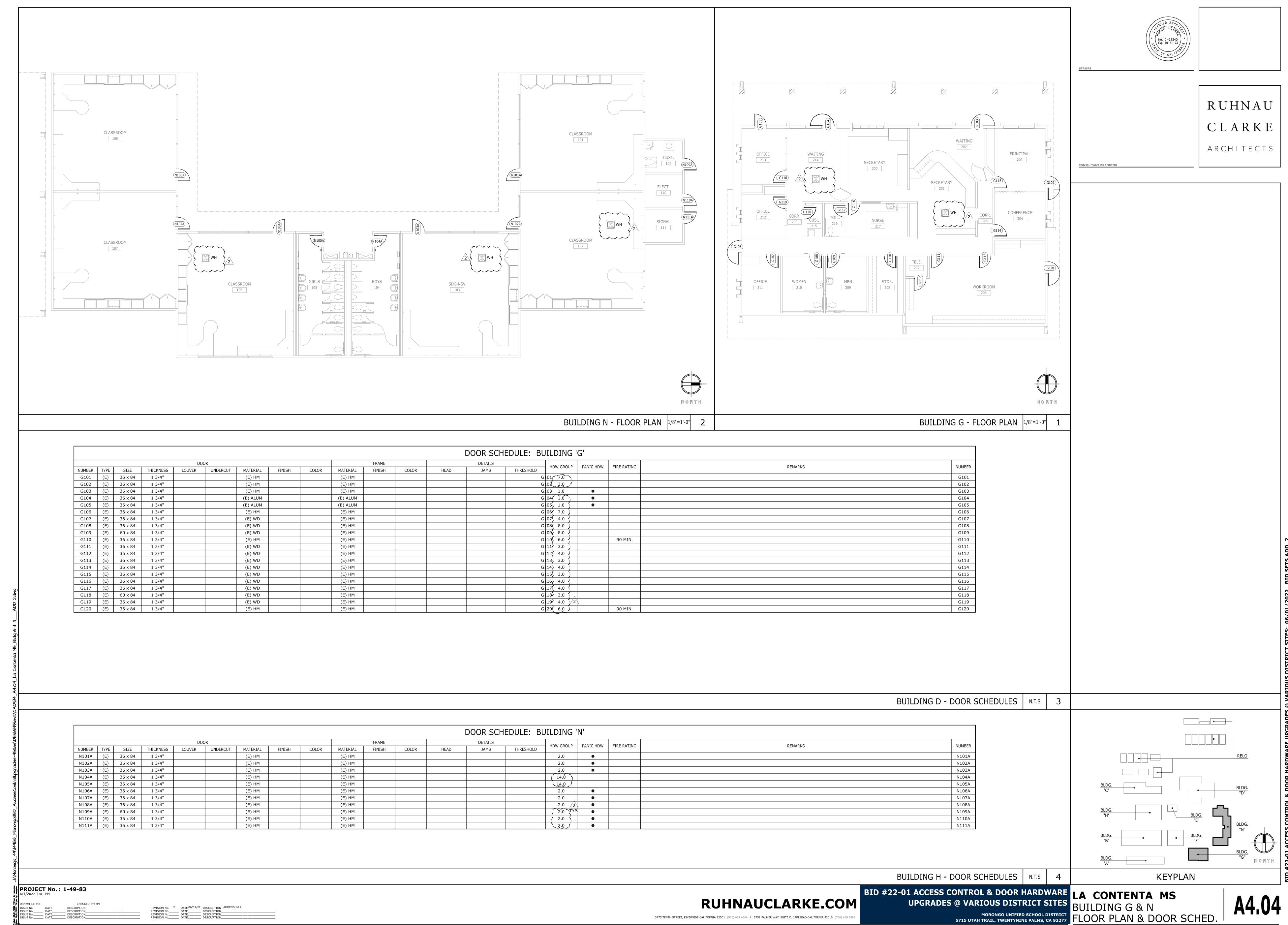












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