


ADDENDUM #3

October 22, 2019

TRANSMITTED VIA EMAIL: 35 pages

TO: ALL PLAN HOLDERS AND POTENTIAL BIDDERS
FROM: TIFFANY McCANTS, PURCHASING OFFICER 
SUBJECT: NORTH BUNCOMBE HIGH SCHOOL DAYCARE CLASSROOM UPFIT
(RFP# 31-19)

The following specifications and drawings are hereby made a part of the original documents. Bidders shall acknowledge receipt of this addendum by notation in the space provided on the Proposal Form.

Addendum includes: Specifications from engineer, plus four pages of questions and answers.

Addendum #3
RFP# 31-19

North Buncombe High School Pre-K Upfit

Answers to Contractor Questions
October 18, 2019

1. ***C3.0 Will 2x2 concrete traffic bearing waffle box instead of Nyoplast be acceptable alternate. Reason is lead time and cost.***
 - a. For Clarification – This is an exterior work question and is being separately contracted by BCS. Davis Civil Solutions has requested final Nyoplast grate configuration option be reviewed and approved by Owner and Architect.
2. ***A1.1 General Notes Owner Phasing #1: Please clarify what scope GC is responsible for on the exterior of the building. What must GC provide and/or install? Site and drainage work, concrete, fence, water fountain, canopy, artificial turf? We heard at the pre-bid that all exterior work was by owner?***
 - a. For Clarification, exterior lighting and exterior water fountain connected to the interior work scope shall be provided and installed by the Contractor. All other exterior work shall be the responsibility of the Owner.
3. ***A1.1 There is no finish schedule for Training Classroom #521. Please clarify.***
 - a. For Clarification, Finish schedule for room 521 Training Classroom shall be similar to 520:
 - i. **Wall** – Painted CMU and GWB
 - ii. **Ceiling** – ACT
 - iii. **Floor** – LVT
 - iv. **Base** – Rubber
 - v. **Area** – 516 sf
 - vi. **Comments** – ACT – Owner’s standard specified system. Owner’s specified system basis of design shall be Armstrong School Zone Fine Fissured #1713 Square lay-in tile, 24” x 24” x ¾” with Armstrong Prelude XL 15/16” suspension system. Color: White
4. ***A1.1 Wall section by door 520 shows G6, but no insulation on wall types all G6 walls have insulation. Please clarify.***
 - a. For clarification, for wall type G6, Wall Type legend should indicate sound attenuation batts are required where indicated, similar to wall type G4. Wall in question is not required to have sound attenuation batts.
5. ***Confirm owner providing bulletin board and white board? GC install?***

- a. For Clarification, bulletins boards and white boards indicated on the drawings shall be Owner provided and Contractor installed.
6. ***Are we to provide storage shelving in 520A or staff/student storage in 521? If yes, please provide specifications.***
- a. For clarification, Contractor shall provide and install storage shelving in room 520A. Basis of Design shall be ClosetMaid Maximum Load Standards with fully adjustable Shelf Track System and Max Load brackets, min 16.75 inches long. Provide ¾" min thickness solid wood shelving compatible with the system brackets. Install brackets to accept a top shelf at 7'-0" aff. and bottom shelf 4"-6" aff. Provide enough bracket and shelving for 6 layers of shelving, roughly 16" oc vertically. Install system per manufacturers written instructions.
 - b. Alternate: Knappe and Vogt 82/182 series Heavy Duty standard and bracket system, configured as above.
7. ***Verify cabinets are to be plastic laminate with standard hardware and countertops are to be solid surface, full color range.***

For Clarification

- a. Cabinet bases shall be Wilsonart High Pressure plastic laminate.
 - i. Grade: Custom
 - ii. Face frame
 - iii. Flush Overlay
 - iv. HGS horizontal and vertical surfaces matching laminate color
 - v. MDF wood material
 - vi. Euro-type concealed hinges, chrome
 - vii. Back mounted solid metal satin chrome wire type pulls, 4" long, 2 1/2 deep, 5/16" dia.
 - viii. Metal Shelf rests
 - ix. Side mounted metal drawer slides where indicated, partial extension.
 - x. Door locks as required by Owner.
 - xi. Cabinet base laminate color: Wilsonart "Kensington Maple" 10776-60 Matte Finish
 - b. Countertops shall be solid surface.
 - i. Solid surface Basis of Design and Color: Wilsonart Solid Surface, "Frosty White Mirage" 1573MG (2)
8. ***Confirm the interior roof deck height.***
- a. For clarification, structural bearing height according to existing drawings is 13'-4" aff. Bottom of deck slightly higher. This measurement shall be field verified by the Contractor.
9. ***Confirm if GC must provide bid bond or P&P bond.***
- a. For clarification, no bid bond or P&P band will be required by Owner.
10. ***Any limitations to work hours or access?***

- a. For clarification, access to the site can be twenty-four hours, seven days a week with the exception of testing dates on Dec 17, 18, 19 and 20 (Tues through Fri) where no work shall take place during school hours. BCS will coordinate access logistics with the chosen bidder at a pre-construction conference and ongoing as the project moves forward.

11. *Is there a specification on the interior wood doors? Species? Finish?*

For Clarification – see flush wood door schedule following:

- a. Flush Wood Doors: Provide Shop drawings indicating location, size and hand of each door. Provide samples for initial selection for factory finished doors. and samples for final verification applied to actual door face materials.
- b. Provide manufacturer's standard lifetime warranty for 7 ply interior solid core doors for transparent finish
- c. Performance grade: WDMA I.S. 1A Heavy Duty
- d. Architectural Woodwork Standards Grade: WDMA I.S. 1A Custom
- e. Faces: Single-ply wood veneer not less than 1/50 inch thick
 - i. Species: Select white maple (provide samples of pine)
 - ii. Cut: Plain sliced
 - iii. Book match between Veneer leaves
 - iv. Assembly of leaves on door faces: center balance match
 - v. Pair and Set match: Provide for doors hung on same opening
 - vi. Room Match: match door faces of compatible color and grain within each separate room or area of building.
 - vii. Exposed Edges: Applied wood edges of same species as faces and covering edges of crossbands - Architectural Woodwork Standards edge Type D.
 - viii. Blocking: HB-8 (as required)
 - ix. Core: Provide WDMA I.S. 10 structural composite lumber doors throughout project
- f. Factory fit to frame sizes
- g. Coordinate and comply with final hardware schedules door frame shop drawings and hardware templates.
- h. For door scheduled to receive electrified locksets, provide factory-installed raceway and wiring to accommodate specified hardware.
- i. Factory cut and trim openings in doors
 - i. Glazing: Factory install glazing in doors indicated – trim openings with Mfr. standard molding profiles – provide options in shop drawings for Owner & Architect review.
- j. Transparent Finish: Factory sealed doors in preparation for site applied finish
- k. Install doors level, plumb, true and straight. Rehang or replace doors that do not swing or operate freely.
- l. Replace doors damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

12. Door hardware has been revised. Please incorporate the following information in your bid:

For Clarification:

- a. Doors 520 and 521 each will have (2) access control readers, one on each side of the door. Please see the hardware specification document and the hardware schedule at the end of the document indicating an additional reader for these doors not listed on the hardware schedule, Sheet A3.1.
- b. The existing hollow metal frames for doors 520 and 521 appear to be grout filled based on field observation. Contractor to verify and consider not being able to hide hardware low voltage wiring within the existing frame.

SECTION 08 71 00 – DOOR HARDWARE

GENERAL

.1 RELATED DOCUMENTS

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

.2 SUMMARY

Section includes:

1. Mechanical and electrified door hardware for:

Swinging doors.

2. Electronic access control system components, including:

Electronic access control devices.

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

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

5. Windows
6. Cabinets (casework), including locks in cabinets
7. Signage
8. Toilet accessories
9. Overhead doors

Related Sections:

10. Division 01 Section "Alternates" for alternates affecting this section.
11. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.

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12. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
13. Division 26 sections for connections to electrical power system and for low-voltage wiring.
14. Division 28 sections for coordination with other components of electronic access control system.

.3 REFERENCES

UL - Underwriters Laboratories

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

DHI - Door and Hardware Institute

5. Sequence and Format for the Hardware Schedule
6. Recommended Locations for Builders Hardware
7. Key Systems and Nomenclature

ANSI - American National Standards Institute

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

.4 SUBMITTALS

General:

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

Action Submittals:

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

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

6. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated, and tagged with full description for coordination with schedule.

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

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

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

8. Key Schedule:

After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.

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Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.

Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

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

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

Informational Submittals:

10. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
11. Product data for electrified door hardware:

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

12. Warranty: Special warranty specified in this Section.

Closeout Submittals:

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

Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.

Catalog pages for each product.

Factory order acknowledgement numbers (for warranty and service)

Name, address, and phone number of local representative for each manufacturer.

Parts list for each product.

Final approved hardware schedule, edited to reflect conditions as-installed.

Final keying schedule

Copies of floor plans with keying nomenclature

As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

Copy of warranties including appropriate reference numbers for manufacturers to identify project.

.5 QUALITY ASSURANCE

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

1. Warehousing Facilities: In Project's vicinity.

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

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

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

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

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

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

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

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

Keying Conference

10. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.

Preliminary key system schematic diagram.

Requirements for key control system.

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Requirements for access control.
Address for delivery of keys.

Pre-installation Conference

11. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
12. Inspect and discuss preparatory work performed by other trades.
13. Inspect and discuss electrical roughing-in for electrified door hardware.
14. Review sequence of operation for each type of electrified door hardware.
15. Review required testing, inspecting, and certifying procedures.

Coordination Conferences:

16. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
17. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

.6 DELIVERY, STORAGE, AND HANDLING

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

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

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

Project Conditions:

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

Protection and Damage:

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

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

.7 COORDINATION

Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

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

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

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

Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

.8 WARRANTY

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

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

Closers:

Mechanical: 30 years.

Exit Devices:

Mechanical: 3 years.

Electrified: 1 year.

Locksets:

Mechanical: 10 years.

Electrified: 1 year.

Continuous Hinges: Lifetime warranty.

Key Blanks: Lifetime

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

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.9 MAINTENANCE

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

PRODUCTS

.10 MANUFACTURERS

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

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

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

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

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

.11 MATERIALS

Fasteners

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

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

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

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

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

.12 HINGES

Manufacturers and Products:

1. Scheduled Manufacturer and Product: Ives 5BB series.
2. Acceptable Manufacturers and Products: Bommer BB series, Stanley FBB Series.

Requirements:

3. Provide hinges conforming to ANSI/BHMA A156.1.
4. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:

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

Interior: Standard weight, steel, 4-1/2 inches (114 mm) high

5. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:

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

Interior: Heavy weight, steel, 5 inches (127 mm) high

6. 2 inches or thicker doors:

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

Interior: Heavy weight, steel, 5 inches (127 mm) high

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

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

.15 SURFACE BOLTS

Scheduled Manufacturer: Ives: 054

1. Acceptable Manufacturers: Burns: 594, Trimco: 3920-8

Requirements:

2. Dutch door bolts to have 9/16" throw.

.16 CYLINDRICAL LOCKS – GRADE 1

Manufacturers and Products:

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

Requirements:

3. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3 hour fire doors.
4. Cylinders: Refer to "KEYING" article, herein.
5. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
6. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
7. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
8. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
9. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.

Lever Design: Schlage Rhodes.

.17 ELECTRONIC ACCESS CONTROL LOCKSETS – WIRELESS BORED-TYPE

Manufacturers:

1. Scheduled Manufacturer and Product: Schlage NDE series.
2. Acceptable Manufacturers and Products: No substitute.

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Product: Schlage ND Series wireless bored-type electronic locksets conforming to the following requirements:

3. ANSI/BHMA A156.2 Series 4000, Grade 1.
4. Certified to UL10C 3 hour rating, ULC-S319, FCC Part15, ADA RoHS, ICC ANSI A117.1
5. Listed, UL 294 - The Standard of Safety for Access Control System Units.
6. Compliant with ANSI/BHMA A156.25 Operation and Security interior operating range of 32 degrees F (0 degrees C) to 120 degrees F(49 degrees C) for interior use only.
7. Compliant with ASTM E330 for door assemblies.
8. Compliant with ICC / ANSI A117.1, NFPA 101, NFPA 80 and IBC Chapter 10Cylinders: Refer to "KEYING" article, herein.
9. Provide cylindrical locksets exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security, and durability in the categories below:

Abusive Locked Lever Torque Test – minimum 3,100 inch-pounds without gaining access

Offset lever pull – minimum 1,600 foot pounds without gaining access

Vertical lever impact – minimum 100 impacts without gaining access

Cycle Test - tested to minimum 16 million cycles with no visible lever sag or use of performance aids such as set screws or spacers.

10. Functions: Provide storeroom function.
11. Emergency Override: Provide mechanical key override; cylinders: Refer to "KEYING" article, herein.
12. Levers:

Vandal Resistance: Exterior (secure side) lever rotates freely while door remains locked, preventing damage to internal locking components from vandalism by excessive force.

Provide lever trim that operates independently of each other.

Style: Rhodes.

13. Power Supply: 4 AA batteries

Provide battery powered wireless electronic products with the ability to communicate battery status and battery voltage level by means of a mobile app at door and remotely by Partner integrated software.

14. Features:

Ability to communicate unit's communication status.

Visual LED indicators that indicate activation, operational systems status, system error conditions and low power conditions.

Audible feedback that can be enabled or disabled.

15. Switches:

Door Position Sensor – magnet integrated into strike to eliminate additional door prep

Interior Cover Tamper Guard

Battery Status

Request to Exit

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16. Credential Reader:

Credential Reader Configuration: Provide credential reader modules in the following configurations, as scheduled.

Proximity, Smartcard via Multi-Technology reader.

Credential reader capabilities:

13.56 MHz Smart card credentials:

Secure section (Multi-Technology and Smartcard): aptiQ MIFARE Classic, aptiQ MIFARE DESFire EV1
13.56 MHz Serial number only (Multi-Technology and Smartcard): DESFire CSN, HID iCLASS CSN,
MIFARE CSN, MIFARE DESFire EV1 CSN

125 kHz Proximity card credentials: Schlage, XceedID, HID, GE/CASI, AWID

Multi-Technology readers that read both 13.56 MHz Smart Cards and 125 kHz Prox cards on a battery powered device.

17. Operation: Provide battery powered wireless electronic products able to operate in three possible modes without change to lock hardware.

Manual operation – Updates pulled direct from mobile app via BLE when in range of up to 50 feet from mobile device to wireless electronic product.

Daily operation –

Updates request by wireless electronic product within 24 hours over Wi-Fi communication, Wi-Fi connection required at the wireless electronic product.

Can be managed by external software.

Real-time operation

Updates communicated in real-time via 2.4 GHz communication to gateway in less than 5 seconds.

Wireless electronic products will be connected via integrated 3rd party software.

Wireless electronic products to have real-time bidirectional communication between access control system and wireless electronic products in less than 5 seconds.

Remote Commanding by Partner Integrated Access Control Network Software with Real-time operation: Provide battery powered wireless electronic products with wireless gateway allowing activation of remote, wireless access control products, enabling activated wireless electronic products to be locked or unlocked from a centralized location within 5 seconds or less without user interface at the device.

Upon Loss of Power to Wireless Electronic Products: Provide battery powered wireless electronic products able to manage access control offline in one of three methods below that can be configured in the field at wireless electronic product by mobile app and remotely by Partner integrated software:

Fail locked (secured)

Fail unlocked (unsecured)

Fail As-Is

Upon Loss of Communication Between Wireless Electronic Products and Gateway with Internet Protocol connection to Host for Real-time operation: Provide battery powered wireless electronic products able to manage access control offline with self-contained database inside device until communication can be re-established between Wireless Electronic Product and Host via Gateway.

Wireless electronic product manages access offline with up to 5,000 users and access schedules as provided by Host prior to loss of communication

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Wireless electronic product captures up to 2,000 audit events from time of communication loss with Host. Audits are transferred to Host upon reconnection of communication via Gateway.

Upon Loss of Communication Between Wireless Electronic Products and Gateway with RS-485 connection to Access Control Panel or Host for Real-time operation: Provide battery powered wireless electronic products able to manage access control offline in one of four methods below that can be configured in the field at wireless electronic product by mobile app and remotely by Partner integrated software:

Fail locked (secured)

Fail unlocked (unsecured)

Fail As-Is

Fail to Degraded/cache mode utilizing cache memory with following selectable options:

Grant access up to the last 1,000 unique previously accepted User IDs.

Grant access up to the last 1,000 unique previously accepted facility/site codes

Remove from cache previously stored User IDs or facility/site codes that have not been presented to wireless electronic product within the last 5 days.

Provide battery powered wireless electronic products able to be remotely configured and managed with Web App, Mobile App, or Partner integrated software.

Provide battery powered wireless electronic products able to communicate identifying information such as firmware versions, hardware versions, serial numbers, and manufacturing dates by mobile app and remotely by Partner integrated software.

Wireless Transmission:

Bluetooth Low Energy (BLE)

Wi-Fi 802.11 B & G

Data Encryption

Encryption: AES 256-bit Key minimum – all BLE communication is AES 256-bit encryption minimum
TLS encryption –

Wireless Electronic Product to Cloud – Daily Mode

Gateway to Cloud - Real Time Mode

Components

18. Product: Allegion Engage Mobile App.

Provide Mobile App for wireless electronic access control products capable of the following minimum requirements.

Add and Configure wireless electronic access control products.

Send updates to wireless electronic access control products.

Add new users and enroll credentials to wireless electronic access control products.

View audits and alerts by wireless electronic access control product.

Perform diagnostics of wireless electronic access control products.

System Requirements: mobile devices, provided by others, require one of the following operating systems.

IOS 7.1 or later

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Android 4.4, Kit Kat, or later
Capable of using Allegion Engage Mobile App

Mobile App capable of field configuring electronic access control devices for the following minimum attributes.

Credential reader formats
Unlock Period
Power failure mode
Audible alarm ON/OFF
Battery status
Validate hardware and software revision
Troubleshooting status signals
Door propped open delay

19. Product: Allegion Engage Web App.

Provide Web App for wireless electronic access control products capable of the following minimum requirements.

Configure wireless electronic products
Add new users and enroll credentials
View audits and alerts by door

System Requirements: computers or other devices, provided by others, require the one of the following browsers.

Internet Explorer 9.0 or later
Chrome 33.0 or later
Firefox 28.0 or later
Safari 7.0 or later

20. Product: Gateway

Provide Gateway for Real-time operation between wireless electronic access control products and Host system that meets the following requirements.

Supports real-time communications to wireless electronic access control product.
Communicates between gateway and host by RS-485, Ethernet (IP/PoE).
Supports up to 10 wireless electronic access control products.
Performs lockdown/unlock command from host to wireless electronic access control product within 5 seconds.
Capable of receiving remote firmware upgrades by mobile app.
Capable of updating the firmware on a linked wireless electronic product.
Capable of being powered over Ethernet (PoE) or via an external 12/24 VDC power supply.
Supports a remote antenna to extend reach of wireless signal to wireless electronic access control product.
Communicates secured data between the gateway and wireless electronic access control products.

.18 EXIT DEVICES

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Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 99 series.
2. Acceptable Manufacturers and Products: Detex Advantex series, Precision APEX 2000 series.

Requirements:

3. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
4. Cylinders: Refer to "KEYING" article, herein.
5. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
6. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
7. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
8. Provide flush end caps for exit devices.
9. Provide exit devices with manufacturer's approved strikes.
10. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
11. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
12. Provide hex-key dogging as specified at non fire-rated openings.
13. Provide electrified options as scheduled.
14. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

.19 ACCESS CONTROL EXIT DEVICES

1. Manufacturer and Product: Von Duprin: AD-400-993R- No Substitute
2. Provide access control exit device series, type, and function where specified in hardware groups.
3. All exit devices shall be UL listed for panic. Exit devices for labeled doors shall be UL listed as "Fire Exit Hardware".
4. Provide exit devices factory cut to door width and height. Locate exit devices at a height recommended by the exit device manufacturer, allowable by governing building codes, and approved by the Architect.
5. Provide access control products with non-volatile memory.

.20 ACCESS CONTROL READER

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Manufacturers and Products:

1. Scheduled Manufacturer and Product: Scheduled Manufacturer and Product: Schlage MT15.
2. Acceptable Manufacturers and Products: No Substitute.

Requirements: Read Only Multi-technology Contactless reader

3. Provide access control card readers manufactured by a global company who is a recognized leader in the production of access control devices. Card reader manufactured for non-access control applications are not acceptable
4. Provide multi-technology contactless readers which can read access control data from both 125 kHz and 13.56 MHz contactless smart cards and NFC-compatible. Provide multi-technology contactless reader optimally designed for use in access control applications that require reading both 125 kHz Proximity and 13.56 MHz contactless smart cards by providing:

Configuration allows reader to be enabled to read smart, proximity or both technologies at the same time. A migration platform to upgrade from the most popular 125 kHz proximity technologies to MIFARE or MIFARE DESFire EV1 by reading both 125 kHz proximity technology and 13.56 MHz contactless smart card technology.

Guaranteed compatibility to read all standard data formats ensuring card-to-reader interoperability in multi-location installations and multi-card/reader populations.

Secure access control data exchange between the smart card and the reader utilizing diversified keys and mutual authentication sequences.

Universal compatibility with most access control systems.

Ease of installation through industry standard wiring methods.

Compatibility with legacy 125 KHz proximity access control formats (all standard formats up to 37 bits, including HID Corporate 1000 formats).

Optimal read range and read speed for increased access control throughput.

Global availability.

Product construction suitable for both indoor and outdoor applications.

Customizable behavior for indicator lights and beeper.

LED & Audio configurations.

Ability to disable reading of specific card technologies or frequencies.

ISO 14443/15693 CSN output configuration.

Wiegand output spacing and timing.

5. Provide multi-technology contactless readers with the following programmable audio/visual indication:

Provide an audio beeper tone sequence to signify: access granted, access denied, power up, and diagnostics.

Provide a light bar with clear visual status (red/green/amber).

6. Provide multi-technology contactless readers designed for low current operation to enable migration from most legacy proximity applications without the need to replace

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existing access control panels and/or power supplies. Provide contactless smart cards with the following power requirements:

Operating voltage: 5 – 16 VDC, reverse voltage protected. Linear power supply recommended.
Current requirements: 125 mA DC, 140 mA PEAK @ 12 VDC

7. Provide multi-technology contactless readers meeting the following physical specifications:

Dimensions: 5.91" x 1.72" x 0.84" (15 cm x 4.4 cm x 2.1cm)

Weight: 9.6 oz. (272.15 g)

Material: UL94 Polycarbonate

Plastics: Consist of three-piece design with mounting plate, potted case and aesthetic cover.

Color: Black, Gray, Brown or Cream as approved by the project architect.

8. Provide multi-technology contactless readers meeting the following environmental specifications:

Operating temperature: -31 to 151 degrees F (-35 to 67 degrees C)

Operating humidity: 5% to 95% relative humidity non-condensing

Weatherized design suitable to withstand harsh environments

Certified rating of IP65

9. Multi-technology contactless reader cabling requirements:

Cable distance: (Wiegand): 500 feet (150m)

Cable type: 5-conductor #22 AWG

Standard reader termination: 18" (0.5m) wire harness

.21 ELECTRIC STRIKES

Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 5100 Series.
2. Acceptable Manufacturers and Products: Folger Adam 300 Series, HES 1006 Series.

Requirements:

3. Provide electric strikes designed for use with type of locks shown at each opening.
4. Provide electric strikes UL Listed as burglary-resistant.
5. Where required, provide electric strikes UL Listed for fire doors and frames.
6. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

.22 POWER SUPPLIES

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5. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent-protected until the year, 2029.
6. Nickel silver bottom pins.

Construction Keying:

7. Replaceable Construction Cores.

Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.

- 5 construction control keys
- 20 construction change (day) keys.
- 5 Great Grand Master Keys
- 5 Grand Master Keys
- 3 Change Keys per Opening
- 100 Key Blanks (Everest T)

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

.24 KEYING

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

Provide cylinders/cores keyed into Owner's existing factory registered keying system.

Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

Requirements:

1. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.

Master Keying system as directed by the Owner.

2. Forward biting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
3. Provide keys with the following features:

Material: Nickel silver; minimum thickness of .107-inch (2.3mm)

Patent Protection: Keys and blanks protected by one or more utility patent(s) until the year, 2029].

4. Identification:

Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Do not provide blind code marks with actual key cuts.

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Identification stamping provisions must be approved by the Architect and Owner.
Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.

.25 KEY CONTROL SYSTEM

Manufacturers:

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

Requirements:

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

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

.26 DOOR CLOSERS

Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4010/4110 series.
2. Acceptable Manufacturers and Products: Corbin-Russwin DC8000 series, Sargent 281 series.

Requirements:

3. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. Certify surface mounted mechanical closers to meet fifteen million (15,000,000) full load cycles. ISO 9000 certify closers. Stamp units with date of manufacture code.
4. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
5. Cylinder Body: 1-1/2 inch (38 mm) diameter with 11/16 inch (17 mm) diameter double heat-treated pinion journal.

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6. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
7. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
8. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
9. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers. When closers are parallel arm mounted, provide closers which mount within 6-inch (152 mm) top rail without use of mounting plate so that closer is not visible through vision panel from pull side.
10. Pressure Relief Valve (PRV) Technology: Not permitted.
11. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI/BHMA Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
12. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

.27 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson: 90 series
2. Acceptable Manufacturers: Rixson: 9-x series, ABH 9000 series.

Requirements:

3. Provide heavy surface mounted overhead stop or holder for interior doors as specified. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

.28 DOOR STOPS AND HOLDERS

Manufacturers:

1. Scheduled Manufacturer: Ives: WS406/407/CCV
2. Acceptable Manufacturers: Burns: 575 series, Trimco: 1270 WV series

Provide door stops at each door leaf:

3. Provide wall stops wherever possible. Provide concave type where cylindrical type locks are used.
4. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.

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.29 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

Manufacturers:

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

Requirements:

3. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
4. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
5. Size of thresholds:

Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width

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

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

.30 SILENCERS

Manufacturers:

1. Scheduled Manufacturer: Ives: SR64 series
2. Acceptable Manufacturers: Burns: 500 series, Rimco: 1229A series.

Requirements:

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

.31 FINISHES

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

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Continuous Hinges: BHMA 630 (US32D)
3. Continuous Hinges: BHMA 628 (US28)
4. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
5. Protection Plates: BHMA 630 (US32D)

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6. Overhead Stops and Holders: BHMA 630 (US32D)
7. Door Closers: Powder Coat to Match
8. Wall Stops: BHMA 630 (US32D)
9. Latch Protectors: BHMA 630 (US32D)
10. Weatherstripping: Clear Anodized Aluminum
11. Thresholds: Mill Finish Aluminum

Finish: BHMA 710/ 313 except:

12. Continuous Hinges: BHMA 710 (US10B)
13. Door Closers: Powder Coat to Match.
14. Weatherstripping: Dark Bronze Anodized Aluminum.
15. Thresholds: Extruded Architectural Bronze, Oil-Rubbed

EXECUTION

.32 EXAMINATION

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

Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

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

Proceed with installation only after unsatisfactory conditions have been corrected.

.33 PREPARATION

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

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

Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

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Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."

Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

.34 INSTALLATION

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

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

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

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

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

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

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

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

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

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

Wiring: Coordinate with Division 26, ELECTRICAL sections for:

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

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

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

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

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

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

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

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

.35 FIELD QUALITY CONTROL

Engage qualified manufacturer trained representative to perform inspections and to prepare inspection reports.

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

.36 ADJUSTING

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

1. **Electric Strikes:** Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
2. **Door Closers:** Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, Hardware Supplier must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

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.37 CLEANING AND PROTECTION

Clean adjacent surfaces soiled by door hardware installation.

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

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

.38 DOOR HARDWARE SCHEDULE

Hardware items are referenced in the following hardware. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.

Hardware Sets:

NORTH BUNCOMBE HIGH SCHOOL
 PRE-K- CLASSROOM
 October 16, 2019

HARDWARE GROUP NO. EXT-01

For use on Door #(s):

520X1 520X2

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	-BY DOOR MANUFACTURER		
1	EA	POWER TRANSFER	EPT10	SP313	VON
1	EA	ELEC PANIC HARDWARE	RX-LC-99-EO	313	VON
1	EA	ELEC EXIT DEVICE TRIM	AD-400-993R-70-MT-RHO-R 4AA BATTERY	643E	SCE
1	EA	SURFACE CLOSER	4111 SCUSH	695	LCN
1	SET	PERIMETER GASKETING	429	D	ZER
1	EA	RAIN DRIP	142D	D	ZER
1	EA	DOOR BOTTOM	-BY DOOR MANUFACTURER		
1	EA	THRESHOLD	8655D	D	ZER

DOOR IS NORMALLY CLOSED AND LOCKED. PRESENTATION OF VALID CREDENTIAL TO READER INTEGRAL TO ELECTRONIC TRIM WILL MOMENTARILY UNLOCK DOOR ALLOWING INGRESS. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. INT-01

For use on Door #(s):

520 521

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	INSTITUTION LOCK	ND82TD RHO	626	SCH
2	EA	FSIC CORE	23-030 EV29 T	626	SCH
1	EA	ELECTRIC STRIKE	51003FP 12/24 VAC/VDC	689	VON
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	MULTITECH READER	MT15 12 VDC	BLK	SCE
1	EA	POWER SUPPLY	PS902 FA900 120/240 VAC	LGR	SCE
BALANCE OF HARDWARE EXISTING					

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DOOR IS CLOSED AND LOCKED ON BOTH SIDES. PRESENTATION OF VALID CREDENTIAL TO READER WILL MOMENTSRIPLY UNLOCK ELECTRIC STRIKE ALLOWING INGRESS OR EGRESS. ELECTRIC STRIKE WILL FAIL- SAFE (UNLOCK) IN THE EVENT OF A FIRE ALARM OR POWER OUTAGE ALLOWING FOR IMMEDIATE INGRESS OR EGRESS.

HARDWARE GROUP NO. INT-02

For use on Door #(s):

520E

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	PRIV W/DB COIN TURN	LV9444 06A L583-363 L283-722	626	SCH
1	EA	OH STOP	90S	630	GLY
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. INT-03

For use on Door #(s):

520D

Provide each DD door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
2	EA	DUTCH DOOR BOLT	054	B26D	IVE
1	EA	WIRELESS ELECTRONIC LOCK	NDE80JD RHO BATTERY OPERATED	626	SCH
1	EA	FSIC CORE	23-030 EV29 T	626	SCH
1	EA	OH STOP & HOLDER	90H	630	GLY
4	EA	SILENCER	SR64	GRY	IVE

INSTALL OH HOLDER ON TOP LEAF OF DUTCH DOOR.

DOOR IS NORMALLY CLOSED AND LOCKED. PRESENTATION OF VALID CREDENTIAL TO READER INTEGRAL TO ELECTRONIC LOCK WILL MOMENTARILY UNLOCK DOOR ALLOWING INGRESS. FREE EGRESS AT ALL TIMES

HARDWARE GROUP NO. INT-04- NOT USED

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NORTH BUNCOMBE HIGH SCHOOL
PRE-K- CLASSROOM
October 16, 2019

HARDWARE GROUP NO. INT-05

For use on Door #(s):

520B1 520B2

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	WIRELESS ELECTRONIC LOCK	NDE80JD RHO BATTERY OPERATED	626	SCE
1	EA	FSIC CORE	23-030 EV29 T	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

DOOR IS NORMALLY CLOSED AND LOCKED. PRESENTATION OF VALID CREDENTIAL TO READER INTEGRAL TO ELECTRONIC LOCK WILL MOMENTARILY UNLOCK DOOR ALLOWING INGRESS. FREE EGRESS AT ALL TIMES.

END OF SECTION

DOOR HARDWARE

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Project: North Buncombe High School- Pre-
K Classroom
Print Date: 9/11/2019

Allegion ID: OPT0125571