ADDENDUM NO. 1

October 13, 2021

UNION DECK ELEVATOR REPLACEMENT
UNC CHARLOTTE

WHN PROJECT NO. 20142 | SCO ID NO. 20-2231

The following is intended to clarify and/or modify the Contract Documents, Project Manual, and Drawings dated October 6, 2021.

PRE-BID QUESTIONS AND ANSWERS

1. QUESTION
   Per GS 87 pertaining to Public Buildings in the single prime job does not exceed 25% of the total cost of the structure then a major component of the project can bid as Prime Contractor. In this case 90% of the job is elevator and elevator ONLY. Can we bid as prime and save the University a bit of money?
   ANSWER
   The UNC System Administration had determined that a General Contractor's (GC) license is required to be the prime to bid this project. An elevator contractor without a GC license cannot bid this project as the Prime Contractor.

2. QUESTION
   Can the HVAC line sets be reused and a new head and condenser be installed?
   ANSWER
   No, all new HVAC system components, including line sets, are to be provided.

3. QUESTION
   Can you please identify your Fire Service Provider and a contact name for use during the project. The existing fire panel is able to take the latest code?
   ANSWER
   The Fire Service Provider is Johnson Controls Inc., John Lane; jon.lane.@jci.com, 704.507.5555. JCI has told UNCC that the existing fire alarm panel can be upgraded without total replacement and meet the latest code requirements.

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4. QUESTION
   You are asking for waterproofing the pit- it appears the water is bubbling up from beneath the jack and seeping from underneath. What testing has been done – water table boring, intrusion testing etc. With the amount of rusting and corrosion present within the pit this has been a long time problem?
   ANSWER
   Groundwater testing has been done and the report will be made available to the successful Contractor. The pit waterproofing and sump are designed to help alleviate the water issues.

5. QUESTION
   Has any thought been given to replacing the buffer and spring assembly?
   ANSWER
   Yes; the buffer and spring assemblies are to be replaced; see Addendum 1.

6. QUESTION
   Has any thought been given to the fact the jack assembly may be as corroded as the buffer and springs due to the water and should be replaced? You could extend the PVC line above the cement and then have the ability to visually inspect?
   ANSWER
   The jack assembly is to be removed and provided new; see Addendum 1.

PROJECT MANUAL

A. Note: Specification Sections, are issued/reissued in entirety for convenience. Within each Section, revisions are noted as follows. Deleted text is indicated with ~~text strikethrough~~. Added text is indicated with text underscore.

Section	Title	Added Pages	Revised Pages
14 2110	Hydraulic Elevators		142110 – 1-17

DRAWINGS

A. The following full size Drawings have been revised.

   1. E001 GENERAL NOTES AND SYMBOL LEGEND
   2. E201 ELECTRICAL POWER PLAN NEW WORK

All Contractors shall acknowledge this Addendum No. 1 in Bid Form/Form of Proposal.

Sincerely,

WHN Architects, PA
Alan W. Hunter, AIA, LEED AP BD+C, PMP
Partner
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SECTION 142110 – HYDRAULIC ELEVATORS

PART 1 – GENERAL

1.1 SCOPE

A. Modernize One (1) passenger elevator with a rated load of 3,500 pounds, to be Single Selective Collective Operation, Speed 150 fpm. Serving floors 1 to 6 landings six. State ID#24677.

B. This specification is intended to cover the alterations/ modernization as shown on the plans and specified hereinafter.

C. The major elevator components shall be the products of one manufacturer of established reputation, except they may be the products, either wholly or in part, of another manufacturer if of established reputation provided such items are engineered and produced under coordinated specifications. Any contractor who proposes to install any "major elevator component" not manufactured or normally assembled by him, as part of his equipment, shall have such product approved by the North Carolina Department of Labor, Elevator Bureau, prior to bidding this specification. Also, the major components to be furnished shall be of a make or makes that have performed satisfactorily together under conditions of normal use in not less than twenty-five (25) other elevator installations of equal or greater capacity and speed for a minimum of three (3) installations in North Carolina.

Upon request, the names and addresses of the building and the names of the owners and manager thereof, in which the proposed combination of major components has so performed shall be furnished.

1. The term "major elevator components" as mentioned above shall mean such items as the hydraulic pumping units, pumps, motors, valve(s), jack assembly, controllers, door operators, and related equipment.
2. The major components shall be installed and so arranged that parts can be removed for repairs or replacement by conventional means, without dismantling or removing other equipment and components. Sufficient workspace for maintenance and repair operations shall be provided around the elevator equipment in the machine room with clear passage to any access or trap doors.

1.2 RELATED DOCUMENTS

A. Bid sheets included as part of the specification must be completed and submitted as part of the bid package. Voluntary alternates should be submitted as a separate proposal.

B. Elevator Maintenance Service Contract to be used in preparing pricing and staffing requirements for interim maintenance.

C. General and special conditions sections and any additional documents included in the bid package.

1.3 RELATED WORK OF OTHER SECTIONS

1. Elevator Contractor:
   a. Cleaning and painting of hoistway equipment and other equipment as indicated in the specifications.
   b. Replace or modify existing pit access ladder, as per code requirements. Paint ladder two coats with semi-gloss enamel paint. Provide non-slip ladder rungs.
   c. Paint hoistway facias, door hanger covers and car toe guards. Paint both sides of the door hanger covers which are visible from the landing side of the entrances. Existing door hanger covers shall be reused, cleaned and painted.
   d. Pipe and wire the existing car telephone circuits to the elevator controllers.

e. New car communication (telephone) shall be provided and installed as part of the new car operating panel, as per code AMSE A17.1-2019 requirements of voice, text and video.
f. Obtain approval prior to bid if the new elevator hydraulic pump motor exceeds a 30 H.P. rating. Electrical feeders are designed to accommodate up to a 30 H.P. rating.
g. Replace all existing electrical wiring, traveling cables, conduit, duct, junction boxes and fittings in the elevator hoistway. Traveling cables shall be routes from the car to the controller without splices.
h. Remove the existing hydraulic jack seal and packing and replace with new.
i. Route all hoistway wiring, such as hall position indicators, hall push button fixtures, hoistway interlocks, limit switches, etc., in liquid tight flexible nonmetallic conduit.
j. Route all wiring on the car top in liquid tight flexible metal conduit or metal conduit.
k. All connectors used for metal conduit shall be compression type. Screw type connectors are not permitted.
l. Remove any elevator conduit from behind the pit ladder and reroute.
m. Provide moisture sensor to comply with NCDOL requirements.

2. Electrical Contractor:
   a. Provide new electrical feeders and disconnects for the elevator main power. Elevator contractor is to provide power requirements. Separate contact(s) shall be provided in the disconnects to prevent “elevator battery lowering operation” from functioning when disconnect(s) are in the off position. Coordinate with the elevator contractor. Locate disconnects to comply with the working clearance requirements of the NEC. See Plans.
   b. Provide car light circuits and disconnects for the elevators. Disconnects are to be either the fused or breaker type and capable of being locked in the open position. Any additional power required by the elevator contractor to be listed as a qualification to bid or included in bid price. See Plans.
   c. Provide heat detectors at each elevator lobby and elevator machine room with signals to elevator controller. Wiring is to be routed in conduit to elevator controllers. Provide three (3) zones as per NFPA 72. See Plans.
   d. Provide light fixtures with guard in pit with switch located adjacent to the pit access ladder. Provide additional lighting as required per code, 100 (lx) at floor level. See Plans.
   e. Provide lighting in the elevator machine room as required per code, 200 (lx) at floor level. See Plans.
   f. Provide GFCI type convenience outlets in the machine room and elevator pits. See Plans.
   g. Provide machine room ventilation (HVAC) in the existing elevator machine room, capable of maintaining a temperature range of 65°F to 90°F. See Plans.
   h. Elevator car light circuits shall be connected to the emergency generator power, if available.
   i. Provide means to remove the main power to the effected elevator prior to the activation of water from the sprinkler(s), if provided, located in each elevator machine room as per NFPA 70, if sprinklers are provided.
   j. Provide new vandal resistant LED light fixtures in each elevator cab ceiling.
   k. Remove all electrical piping, boxes, etc. behind the pit access ladders and reroute.

1.4 SUBMITTALS

A. Shop Drawings, Descriptive Data: Submit samples of all natural metal finishes for approval. Submit accurately dimensioned drawings prepared for this project detailing all fabrication of custom assemblies and layouts of standard items. Shop drawings shall include but not be limited to the following:

1. Dimensioned Layouts: Controller location in machine room.
2. Design Information: Indicate equipment lists and design information on layouts.
3. Design of car enclosure, showing elevations and details.
4. Power Confirmation Sheets: Include KVA, starting current, full load running current and demand factor for applicable static control devices.

5. Certificates: Submit certificate of elevator performance with contract closure documents. After adjustment tests and inspection are performed, forward certificate signed by elevator manufacturer stating that the equipment and controls provide elevator service as specified.

6. Information for Operation and Maintenance:
   a. Three (3) sets of wiring diagrams with field changes.
   b. Three (3) sets of parts manuals for all components.
   c. Three (3) sets of trouble shooting manuals.

   These shall include:
   a. Description of the elevator system's sequence of operation and control including the functions of signals, door devices and other features. Provide any special tools needed to maintain or trouble shoot equipment.
   b. Written instructions for the trouble shooting, adjustment and care of the entire equipment.
   c. Electrical prints shall be reproducible type, non-fading.
   d. One set shall be sealed in a clear material and mounted in the elevator machine room.
   e. All electrical wiring diagrams shall be "as built" drawings. If standard drawings are used they shall be marked up according to the installation for which they apply.
   f. Provide two sets of keys for every key switch applicable to the elevators, including the controller cabinets if required. Provide two (2) elevator door emergency unlocking device keys.
   g. The identification label for each diagram and manual shall include the subject, building name, location, contract number, the specified state assigned elevator number to which the diagrams and manuals apply.
   h. Three set of diagrams and manuals shall be delivered to the designer who will deliver them to the engineering officer of the facility and,
   i. The elevator contractor shall notify the North Carolina Department of Labor for scheduling of a final inspection as per code and specifications. Approval must be given that all code requirements have been met and that installation complies with the specifications before final payment will be made.

7. Verification that manufacturer warehouses parts locally with immediate access to major components (rotating elements, etc.).
8. Provide the tool and/or diagnostic equipment and software to adjust, troubleshoot, and maintain the elevator control system. Any cost to keep tools updated and operable to be included in the base bid. Provide instruction manuals in the operation of these special tools. If a special agreement is required, provide a copy with your bid.
9. Provide signs for elevator out of service, in format approved by Owner.
10. Provide approved barricades at all openings where open hoistways are open to view.
11. Dimensioned layout of elevator machine room is not required.

1.5 CERTIFICATIONS

A. Reports on in-place testing of elevators in conformity with Rules of the latest edition of the ASME Code and Current Supplements.

B. Material Certification: Provide written certification that materials used meet specified requirements.

C. Installation of Certification: The Elevator Contractor shall provide written certification stating that elevators are completed and operational per specifications.

1.6 PERMITS, CODE, INSPECTION CERTIFICATES

A. Make application for secure and pay for all necessary permits and Certificates of inspection for all equipment included herein, as required by the various departments of the Local and State Authorities.

B. All work, material, fabrication, design and equipment shall comply with the requirements, rules and latest approved practices of the National Electrical Code, latest edition of the ASME A17.1 Code, applicable requirements of Sections 8.6 and 8.7, latest edition of the ASME A17.3 Code, the Americans with Disabilities Act and the rules and regulations of all other governing bodies which may have jurisdiction where the equipment is to be installed.

C. Before final acceptance of the work, furnish the Owner certificates of inspection and approval as required by the authorities having jurisdiction. Make tests as specified and as required by the regulations and in the presence of the proper authorities or Owner's representative.

D. In addition to the permits, inspections and tests specified and the governing codes, the Elevator Contractor will be required to have performed speed and load carrying capacity and heat tests at his own expense. Elevator Contractor to participate in fire service tests to assure that equipment operates as required in emergencies.

1.7 MAINTENANCE

A. Furnish full-service type maintenance for the elevators starting at the time demolition for the modernization. This maintenance shall continue for 12 months after all elevators are accepted. See requirements UNCC Elevator Maintenance requirements under Appendix "A".

B. All modernization elevator work shall be performed by the Elevator Contractor with qualified personnel.

C. Call back and repair time response will be in accordance with UNCC Elevator Maintenance Contractor.

1.8 WARRANTY

A. Provide warranty to replace, repair, or restore parts or components that fail or do not operate properly due to poor field or factory workmanship, engineering or design for a period of 12 months from the date of signed final acceptance by the Owner.

B. Elevator Contractor to provide all necessary maintenance, replacement of parts, repairs and alterations to re-used equipment to place it in first class operating condition, in accordance with the all inclusive full maintenance contract requirements under Appendix "A" for a period of 12 months from the date of signed final acceptance by the Owner.

1.9 MANUFACTURER

A. The following elevator controls are accepted as equals. Equal products are accepted under the requirements of this specifications and/or pre-approved by the Owner and Architect.

<u>Controls:</u>
Motion Controls (MCE)
Thyssenkrupp
Smart Rise
Virginia Controls

In the interest of unified responsibility, the elevator contractor shall be one regularly engaged in the business of installing and servicing elevators of the type and character required by these specifications.

The controller must use non-proprietary parts.

1.10 BIDDER'S QUALIFICATIONS

1. The Bidder shall have technical qualifications of at least three years' experience and trained supervisory and installation personnel to install specified items.
2. Any manufacturer's product submitted shall have been in satisfactory and efficient operation on not less than twenty-five installations like this project, and for not less than one and one-half years.
3. Contractor shall submit a list of five (5) installations by the contractor of the control system and machine proposed for use on this project.
4. The Contractor shall have available under his direct employment and supervision the necessary personnel, organization and facilities to properly fulfill all the service and conditions required under these specifications.
5. Contractor must have access to necessary tools, diagnostic equipment and software to maintain the solid state controlled equipment included in the specification. Evidence of this requirement shall be submitted with the bid and shall include references from customers with full service maintenance on solid state controlled elevator equipment of the same make and model as bid.
6. The Bidders may be required to submit to the Owner's Representative a resume of experience of the assigned foreman and mechanics, names and addresses of persons authorized to accept or reject work performed under this contract and a financial capacity to perform this contract (Dunn Rating or equal).
7. The maintaining of this elevator equipment in a safe condition within proper operating limits in accordance with original manufacturer's equipment specifications is of paramount importance.
8. Requests for information contained in Item 4 may also occur at any other time during the effective period of this contract, or any extension/renewal thereof.

1.11 CONTRACTOR RESPONSIBILITY

A. The Contractor shall carefully review specifications and existing building conditions as they may affect the design, installation, use, and maintenance of the traction elevators. The Contractor shall submit with his bid a certificate in writing stating his acceptance of all such elements of the design. Any exceptions shall be so noted on this certificate. **The cost for any changes required to produce a full, workable, code complying elevator system shall be borne by the Contractor.**

B. The electrical design for the hydraulic elevators will be based on the power feeders and disconnect devices as specified in the electrical specification sections.

C. The Elevator Contractor shall remove all superseded equipment not retained by the owner. Specific items to be retained will be removed by the Elevator Contractor and delivered to the owner's choice of location. If the owner has no use for the removed items, the Elevator Contractor shall dispose of them.

D. Where access to the pit is by means of the lowest hoistway entrance, provide a vertical ladder on the interlock side of the access door extending a minimum of 48" above the sill of the access door in accordance with ASME A17.1 Code. Elevator contractor shall relocate conduit, raceways, or any other equipment that interferes with the installation or relocation of the pit ladder on the interlock side of the access door.

E. Elevator Contractor shall coordinate their work and cooperate with the Owner and/or their contractor responsible for performing work under Article 1.3.

F. Elevator Contractor shall be responsible for all cutting and patching required by their work. Elevator Contractor shall provide fire stops as required by code for all wiring, etc. that penetrates fire rated walls.

PART 2 – PRODUCT

2.1 Elevator equipment shall be, in general, the manufacturer's top of the line products, modified as required to operate with existing components.

2.2 EQUIPMENT SCHEDULES

A. Modernization Summary for One (1) Existing Hydraulic Passenger Elevator, Union Parking Deck.

MACHINE ROOM

Complete Pumping Unit----------New

Pump and Motor----------New

Valves----------New

Controller----------New.

Operational Controller----------New

Leveling Devices----------New

HOISTWAY

Hydraulic Jack Assembly --------- New Complete

Normal &Final Limits----------New.

H/W Interlocks----------New.

H/W Closers----------New.

H/W Door Panels----------New.

H/W Door Hanger Covers---------Reuse existing. Paint both sides a matte black color.

H/W Facias----------Reuse existing. Paint a matte black color.

H/W Door Hangers & Rollers-----New.

H/W Door Bottom Guides---------New.

H/W Door Frames----------Reuse existing, clean.

H/W Door Headers/Struts----------Reuse existing.

Unlocking Devices----------New.

Rails----------Reuse existing.

Buffers/Pit Channels----------~~Reuse existing.~~ New buffers and pit channels. *

CAR

Car Frame ----------New.

Car Enclosures----------New. Stainless steel and laminate panels as per Plans.

Top of Car Operating Devices-------New.

Platform----------Reuse.

Cabs ----------New.
.
Ceiling----------New, Stainless steel panels as per Plans.

Ceiling Lighting Fixtures----------New, LED as per Plans.

Certificate Frames----------New, stainless steel, vandal resistant.

Emergency Lighting----------New, in car operating panel.

Car Hangers & Tracks----------New.

Car Doors----------New, stainless steel finish.

Front Return Panels, Headers
& Jambs----------New stainless steel.

Floor Covering----------New, stainless steel diamond plate flooring. Remove "Southern Elevator" plate and fill in, as required.

Car Door Sills----------New.

Telephones----------New. Incorporate in new return and install as per code.

Door Operators----------New.

Door Protection----------New, Full height electronic curtains.

SIGNALS----------New, flush mounted at height as per Code. All fixtures shall be vandal resistant stainless steel type, etched for illumination. All signage shall be engraved in the new hall and car fixtures.

Car Pos. Indicators----------New, Digital type located in car operating panel.

Car Operating Panels---------- New, Phase II instructions and all other required wording shall be engraved. Locate fire fighters panel as per code.

In-Car Lanterns----------New.

Hall Push Button Fixtures---------- New flush mounted Type 304 or 316 stainless steel with tamper-proof screws and neoprene gaskets. No plastic, PVC, or other materials are acceptable. Engraved signage and fire sign located at height, as per Code. Patch and paint, as per Plans.

Hall Position Indicators---------- New digital type with direction arrows incorporated into the 1st floor hall call station at 1st floor. All push buttons and faceplates must be Type 304 stainless steel with tamper-proof screws and

neoprene gaskets where applicable. No plastic, PVC or similar materials will be accepted.

Hall Lanterns----------N/A

HANDICAP

Car: Raised Nos. & Braille---------New.

Frames: Raised Nos. & Braille-----Provide new at all landings.

LIFE SAFETY

Fireman's Service----------New

Emergency Light----------New (battery pack) with light in the car operating panel.

MISCELLANEOUS

Maintenance Service----------As specified herein.

~~Wiring~~ Traveling Cable ---------- New, traveling cables and wiring. Traveling cables shall be routed directly from the car to the controllers in the machine room, without splices. In addition to the 10% spare wires, each traveling cable shall be arranged to provide no fewer than five (5) individually shielded pairs of 18-gauge twisted pair and two (2) RG-6/U solid center conductor coax cable for CCTV monitoring one (1) coaxial cable spare for future security requirements. Run one coax and power supply to location in car for CCTV camera. All cables must be separated from any high voltage.

2.3 PERFORMANCE

A. Speed: +/- 5% under any loading condition.

B. Capacity: Safety lower, stop and hold rated load.

C. Leveling: +/- ¼" with rated load and under normal operating conditions.

D. Door Closing Time, Thrust and Kinetic Energy shall comply with ASME A17.1 Code.

2.4 PUMPING UNITS COMPLETE WITH TANK, PUMP, MOTOR & VALVE (NEW)

A. Provide manufacturers standard submergible type unit. Provide sound isolation designed to effectively prevent transmission of vibrations to structure and thereby eliminate sources of structural-borne noise from the elevator system.

B. Provide a low oil control circuit to function as required should a low oil condition or malfunction occur.

C. Backup lowering devices should automatically function during power failure.

D. Hydraulic pump(s) and motor(s) shall be sized to accommodate the new car enclosure (cab) and any additional weight, in order that the elevator shall lift the rated load at rated speed, as per Code.

E. Fluid used for system shall be non-combustible type.

2.5 MOTION/MOTOR/OPERATION CONTROLLERS (NEW) (NON-PROPRIETARY)

Microprocessor Control System: Provide manufacturer's standard solid microprocessor based control system for the elevator as required to provide automatic operation. Controllers shall be mounted on the hydraulic pumping units, unless otherwise approved by the Architect.

Microprocessor based control system shall perform the functions of safe elevator motion, car operational and supervisory control and elevator door control. System shall allow for reprogramming of software to suit the individual requirements and changing operational requirements of the facility, based upon the parameters of the operational system(s) specified. Across the line starting is not acceptable.

A. The system shall include the hardware required to connect, transfer and interrupt power, and protect the motor against overloading, and perform operation control.

B. Controller cabinet containing memory equipment shall be properly shielded, control shall accept reprogramming with minimum system down time, and shall not lose memory from a power failure.

C. Equipment Enclosures: Install control system in cabinets of steel with hinged doors or panels arranged for easy removal, of required gauge and properly grounded as required by National Electrical Code. Rack mount equipment to permit easy access to components. Provide doors with recessed ring-pulls or handles and ventilation grill at top and bottom.

D. Provide Battery Lowering Operation to lower elevator and open doors at the designated landing in the event of main power failure as per Code.

2.6 NORMAL STOPPING DEVICES AND FINAL LIMIT SWITCHES (NEW)

A. Provide slow-down and normal stopping devices.

B. In addition to the normal limit stops, a hoistway final limit switch shall be installed at the top and at the bottom of each hoistway.

2.7 AUTOMATIC TWO-WAY LEVELING (NEW)

A. Elevator car shall have two-way leveling to automatically bring the car to a stop approximately level with any floor for which a stop has been initiated, regardless of load, rope stretch or direction of travel. Maximum level variation ¼".

B. Automatic leveling control shall permit the synchronization of door opening with the stopping of the car at a floor.

2.8 GUIDE RAILS (REUSE)

A. Realign rails and file joints as required to provide a smooth ride.

2.9 HYDRAULIC JACK ASSEMBLIES COMPLETE: (NEW)

A. Provide a new hydraulic jack packing assembly for elevator at the completion of project.

2.10 HYDRAULIC CYLINDERS/PLUNGERS (NEW) - HYDRAULIC PIPING (NEW)

~~A. Existing hydraulic piping from the new pumping unit to the existing jack assemblies may be reused. Any leaking or defective piping shall be replaced with new. Provide new cut off valves in machine room and pit. Provide a minimum of one (1) isolation coupling in the line located in the machine room~~

REMOVAL OF EXISTING & INSTALLATION OF NEW HYDRAULIC JACK ASSEMBLIES

A. Erect safety/sight barricades, lay protective floor covering around work areas.
Note: Contractor shall complete the removal of the existing hydraulic jack assemblies and install new assemblies in accordance with Codes and provide a safe workplace at all times. The following is not intended as a guide or procedure.
B. Remove the existing jack assemblies and dispose of properly.
C. Hazardous debris and hydraulic fluid from the existing jack assemblies shall be removed and disposed of properly.
D. Jackhammer removal of existing concrete and repair pit with new channels, buffers and concrete.
E. Vacuuming or removing spoils, water from hole
F. Install protective PVC (polyvinyl chloride) casing that includes a means of monitoring for corrosive moisture.
G. Apply protective coating to the new cylinders to aid in protection against corrosion.
H. Install new hydraulic jack assemblies of sufficient size to lift the gross load to the required height and shall be factory tested to insure adequate strength and freedom of leakage.
I. Plungers and cylinders shall be installed plumb and in line with the existing guide rails and shall operate freely with minimum friction.
J. Brackets shall be welded to the jack assemblies for supporting the elevator on new pit channels. New channels shall support the jack assemblies and new spring buffers.
K. Backfill area between new PVC's and hydraulic cylinders to stabilize jack assemblies.
L. Provide new hydraulic fluid for the elevator hydraulic system.
M. Full load safety test will be required.
N. Elevator contractor shall re-drill the jack hole to accommodate the new jack assemblies and PVC casings.

2.11 CAR BUFFERS(NEW) & PIT CHANNELS (NEW)

A. Clean all buffer springs, pit buffer channels and paint. Anchor as required to provide a solid assembly.

2.12 PIT SWITCH AND PIT LADDERS (NEW)

A. New emergency stop switches shall be in the elevator pits as per code.

B. Install new pit ladder to be accessible from the pit access door, extending a minimum of 48" above the sill of the access door, as per Code.

2.13 HOISTWAY DOOR INTERLOCKS (NEW)

A. Each elevator hoistway door shall be equipped with a hoistway unit system, hoistway door interlock. The interlock shall prevent the operation of the elevator machine by the normal operating device unless the hoistway door is locked in the closed position. The interlocks shall also prevent the opening of a hoistway door from the landing side unless the car is at the landing.

2.14 HOISTWAY DOOR UNLOCKING DEVICES (NEW)

A. Unlocking devices shall be provided at all floors as per Code for all elevators. Provide any missing escutcheons.

2.15 ELEVATOR CAR SPEED

A. Provide a minimum elevator car speed of 150 fpm.

2.16 ELECTRICAL WIRING (NEW)

A. Electrical wiring shall comply with the ASME and National Electrical Code. All elevator hoistway and machine room wiring and traveling cables shall be new. Existing conduit and ductwork may be reused if it meets code requirements. Provide a minimum of 10% spare wires.

2.17 GUARDS

A. Provide as applicable to the ASME A17.1Code, relative to guarding of exposed gears, sprockets, tape or rope sheaves, or drives of selectors, floor controllers, or signal machines, and the ropes, chains, or tapes for driving same in machine room. Provide a toe guard to comply with NCDOL requirements.

2.18 TOP OF CAR OPERATING DEVICE (NEW)

A. Elevator shall be provided with a new operating device mounted from or on the car crosshead which will permit slow speed (100 fpm or less) operation for purposes of adjustment, inspection, maintenance, and repair. A transfer switch shall be provided in the top of the car operating device fixture which will permit the disconnecting of hoistway access switch or switches and render top of car operating device operative. The operating device shall be mounted in a metal box and shall be rigidly secured in a position conveniently accessible to workmen on top of the car. Provide lamp with wire guard and GFCI outlet on top of the car in an easily accessible position.

B. Provide car top escape hatch electrical switches as per Code. All car top boxes must be NEMA 3R or NEMA 4 rated.

2.19 LUBRICATION

A. Suitable means shall be provided for lubrication with oil or grease, all bearing surfaces in connection with the elevator installation. Greased gun fittings, if used, shall be suitable for high pressure guns. Greased guns, if used, shall be automatic feed compression type.

2.20 HOISTWAY ACCESS SWITCHES (NEW)

A. Provide hoistway access switches at the top and bottom terminal landings, as per Code.

2.21 PLATFORM AND CAR FRAME (NEW)

A. The platform and car frame shall be new.

B. All retained equipment shall be inspected and renewed as needed in order to render the elevator to provide an acceptable operation.

2.22 CAR ROLLER GUIDES (NEW)

A. Clean car guide rails and provide roller guides, spring loaded type, which are individually adjustable.

2.23 CAR DOOR HANGERS AND TRACKS (NEW)

A. Complete door hangers and tracks shall be provided for the car doors. Sheaves shall be steel with a flanged groove into which a solid non-metallic tire shall be vulcanized securely. Sheaves shall be a minimum of 2 1/2" diameter. Hangar brackets shall be the applied type.

2.24 DOOR OPERATORS (NEW)

A. Provide new heavy-duty type door operators, capable of opening doors at not less than 1-1/2 fps and accomplishing reversal in 2-1/2-inch maximum of door movement. Doors shall open automatically when car arrives at floor to permit transfer of passengers; after timed interval, doors shall automatically close.

B. Door operator shall be weatherproof.

C. Approved door operator manufacturers:
GAL
MCE

2.25 DOOR RE-OPENING AND CONTROL DEVICES (NEW)

A. Provide 3D solid state door reopening device per code and to comply with AMSE A17.1-2019.

2.26 HOISTWAY ENTRANCES (REUSE), HOISTWAY DOORS (NEW)

A. Retain the existing hoistway entrance frames and provide new hoistway doors at all openings. Provide new door hangers, rollers, tracks, closers and bottom gibs. Provide missing door escutcheons on all hoistway doors.
Frames: Stainless Steel
Doors: Stainless Steel
Door Hardware (Gibs, Hangers, etc.): Weather-resistant/Corrosion-resistant

B. New hanger sheaves shall be steel with a flanged groove into which a solid non-metallic tire shall be vulcanized securely. Sheaves shall be a minimum 2 ½" diameter. Bearings for sheaves and rollers shall be ball type, sealed to retain grease lubrication. Hanger brackets shall be the applied type. Steel housing shall be provided for attachment to the door. Rollers, with ball-bearings, shall be provided to remove excessive door up-thrust.

C. Floor Numbers: Provide floor numbers on the hoistway side of the door panels in compliance with ASME A17.1.

D. Provide restricted opening of all hoistway doors and/or car doors of the passenger elevators in compliance with ASME A17.1 code and supplements.

2.27 CAR ENCLOSURE/CAB (NEW)

A. Provide new side and rear (vandal-resistant laminate) wall finishes with ventilation in baseboard, if applicable. Install new handrails on side walls at height, as per Code. See Plans.

B. Floor Covering: Stainless steel diamond plate, capable of withstanding heavy foot traffic.

C. Provide ceiling-mounted ventilating fan with vandal resistant cover. Fan shall be two-speed exhaust fan with automatic shut-off during equipment non-use. The fan shall be controlled from the cab control panel via three (3) position key switch.

D. Provide new stainless steel suspended ceiling with new panels in cab ceiling. Stainless steel ceiling with vandal resistant LED down lighting.

E. Provide new stainless steel front returns, headers and jambs. See Plans.

F. Provide new extruded aluminum or stainless steel car door sills, including toe guard

G. Cab must be supplied by one of the following manufacturers:
Inpro
Thyssenkrupp
Otis

H. Doors: Stainless steel.

I. Door frames: Stainless steel

J. Front Return Panel: Same construction as doors.

K. Cab Operating Panel: Integral with wall front return, one per cab.

L. Handrails: Flat bar, brushed stainless steel on side and rear walls.

M. Door Threshold: Extruded aluminum, or stainless steel

N. All buttons, both inside the cab and hall call stations must be vandal resistant with either a green halo or green dot in the center.

O. Wiring: Cab must be wired to include emergency telephone and provisions for IP security camera plus two (2) spare data cables.

2.28 SIGNAL FIXTURES (NEW)

A. All signal fixtures provided as part of this specification shall be NEMA 4 vandal resistant type, stainless steel, illumination and all cover plates shall be secured using tamper-poof fasteners and include neoprene gaskets. The finish for all cover plates shall be #4 brushed stainless steel.

All signal fixtures described hereafter and provided, shall be fully compliant, and installed in accordance, with all the current rules and regulations of ASME A17.1 and ADAAG and the North Carolina State Accessibility Code. All applicable signage shall be engraved on car and hall button fixtures.

This shall include, but not limited to, Phase I and II operating instructions and lobby exit signage.

B. Provide new car-operating panel. Panel shall contain all the necessary buttons, indicators, audio and visual signals and keys switches for Firefighters Phase I and II and all controller features activated by the car-operating panel. It shall be hinged for easy access and maintenance to the components. Emergency lighting fixture shall be installed above the new car operating panel or may be incorporated in the new panel. The necessary telephone hookup shall be provided in the machine room and routed to the car telephone.

C. New hall push button fixtures shall be vandal resistant, stainless steel type with engraved signage: “In Case of Fire Use Exit Stairs”, or similar wording with Fire Sign. Fixtures shall be the flush mounted at proper height as per code. New vandal resistant combination hall lanterns, position indicators, direction arrows shall be provided at each floor. New fixtures shall cover existing fixture holes and included

neoprene gaskets. The Designated level is the first floor and Alternate landing is the basement floor, or as determined by the AHJ.

D. New digital car position indicators and direction arrows shall be provided and incorporated in the new car-operating panel.

E. Provide Emergency power status indicator(s), if required, as per Code.

2.29 OPERATION AND CONTROL SYSTEM

A. Manufacturer is to provide, and contractor is to install built-in diagnostics for trouble shooting system.

B. Operation: Provide controller manufacturers standard single car selective collective operation.

C Independent service: A key-operated switch shall be provided for each elevator for selecting independent service operation. When this switch is in the independent service position, the elevator shall be disconnected from the selective-collective control system and all hall calls will be transferred to the other car. The elevator taken out of service may then be run from its car buttons for any special usage.

2.30 AUXILARY OPERATION AND CONTROLS

A. General: In addition to primary control system features, provide the following controls or operational features for the passenger elevator, except where otherwise indicated.

B. Provide Fire Fighters Service Phase I and Phase II in accordance with ASME A17.1 Code and all local governing codes. A three-position key-operated switch marked “ON, OFF, RESET” shall be provided at the designated landing.

C. Alarm Bell System (With Electrical Power to Car): Emergency alarm bell(s) shall be located so as to be heard outside the hoistway and arranged to sound automatically in response to activation of alarm button in car control system. Emergency Lighting and Alarm Bell: Provide new lighting and alarm bell. Emergency lighting may be incorporated in the car operating panel.

D. Stand-by Emergency Power Operation: Required for elevator car lights by electrical contractor.

E. Elevator Status Panel: Not required.

F. Elevator Emergency Power Selector Switches: Not required.

G. Elevator Battery Lowering Operation: Elevator to lower elevator(s) to the Designated Landing in case of a main power failure. Operation shall be designed to function as per Code.

H. Provide the following dedicated travel cable data lines for each elevator:
(1) Camera
(1) Monitoring system
(3) Spares

2.31 MACHINE ROOM EQUIPMENT

A. Identification: Provide identifying numbers on the pumping unit, controller and disconnect switch and data tags as per code.

B. No conduit shall be fastened to or supported by the controller frame or other machinery except by flexible connections.

2.32 HEAT SENSOR TIE-IN

A. System to interface with elevator lobby heat sensors, including designated and alternate level and machine room (heat sensors and wiring to Machine Room by others).

2.33 VENTILATION

A. Hoistway must include a ventilation system which draws in external air, circulates it through the hoistway, then ventilates it back out of the hoistway in order to guard against condensation build-up and corrosion.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Installation shall meet applicable requirements of the latest edition of the ASME A17.1 Code, Sections 8.6 and 8.7

B. Welding procedures and the appearance and quality of welds shall Conform to the American Welding Society (AWS) Code.

3.2 HOISTWAYS

A. All hoistway equipment shall be cleaned and painted. All conduit, duct or equipment abandoned or rendered useless by modernization shall be removed and disposed of.

3.3 PAINTING OF ELEVATOR EQUIPMENT

A. All elevator equipment, miscellaneous iron and steel work located within the machine room, pit and hoistway, including elevator machines, motors, controllers, sheaves, door operators, car frames and platform, pit equipment and exteriors of elevator cars, hoistway facias, hanger covers and toe guards shall be painted. All painting shall be by Elevator Contractor.

B. Finish coats shall have hard, tough semi-gloss or matte surfaces. Prime coat shall be compatible with finish coats. Any visible equipment in hoistway shall be painted matte black except hoistway conduit and duct.

C. Machine room floors, pit and top of cars shall be painted medium gray as required in paragraph B, above.

D. If items are factory painted, they are not required to be completely repainted, but touched-up to present a new appearance.

3.4 USE OF ELEVATORS

A. The elevator contractor shall provide protection from hoistway in accordance with ASME A17.1 Code.

B. The guarantee period will start at the time the elevators are completed and accepted.

3.5 TESTING

A. Tests shall be performed by the Elevator Contractor at his expense in the presence of the Owner, Architect or their designated representative. The elevators shall be subjected to the following acceptance and inspection and tests:

1. Inspection and test required by applicable portions of the ASME A17.1 Code and all current supplements.
2. Periodic inspection and tests as required by applicable portions of the ASME A17.1 Code and all current supplements.
3. Inspection and tests required by Federal, State and Local codes and ordinances.
4. A continuous operating test in which the elevator under full rated load is operated continuously for one (1) hour over its entire operating range, stopping momentarily at all floors. There shall be no operational failure of any component.
5. Test safety circuit and door lock circuit for proper operation.
6. The Contractor shall also present certified copies of the results of tests required by the ASME Code.
7. Test Results: In all test conditions, speed and performance time specified shall be met. Leveling accuracy shall be maintained without re- leveling. General riding quality shall be acceptable to owner. Temporary rise in windings shall not exceed 50 degrees Celsius above ambient.
8. Contractor shall provide Owner/Representatives a minimum of eight (8) hours training on the new elevators controls, operation, drive systems and complete elevator system at the end of the project. Owner shall set time and date for this training.

B. Emergency Systems Testing:

1. The elevator contractor shall participate in the building fire alarm testing. The following features are to be demonstrated:

   Recall (fire alarm): Demonstrate the elevators ability to accept a signal (contact closure from the fire alarm system) and initiate the following sequence:

   1. A contact closure shall be provided to the elevator controls for the elevators serving the lobby of incidence, shall automatically return to their designated floor where they shall park with their doors open.

   2. If the fire floor of incidence is the designated floor, the elevator cab(s) shall return automatically to an alternate floor.

C. Final Adjusting/Setup

1. The final adjusting/setup to the elevator controllers shall be performed by an experienced factory trained adjuster, who is an employee of the elevator controller manufacturer.

2. Upon completion of the final adjusting/setup, this work shall be certified from the manufacturer that the elevator controllers are operating in accordance with the design specifications.

3. Provide a data plate that indicates the Code and edition in effect at the time of the Alteration. Data plate shall be in plain view, securely attached to the main line disconnect or on the controller.

3.6 ACCEPTANCE

A. Final acceptance of the installation shall be made after all field quality control inspections and tests are complete. Workmanship and equipment must comply with specification. Speed, floor to floor performance, accelerating, decelerating, running and leveling must comply with specification. Elevator contractor shall furnish personnel, equipment and instruments to perform all required tests.

3.7 FULL MAINTENANCE BID ALTERNATE

A. In addition to the Warranty/Maintenance Service required by Articles 1.7 and 1.8, provide a quote for an additional extended forty-eight (48) months. This full maintenance service shall begin on the date that the construction contract Warranty/Maintenance Service concludes.

   The elevator contractor shall quote a firm price for the forty-eight (48) months of extended full maintenance service. This cost will not be taken from the construction contract funds, but will be divided into forty-eight (48) equal monthly payments by the user/owner.

   The maintenance proposed shall fully comply with the requirements specified in the Full Service Maintenance contract under Appendix “A”.

END OF SECTION 142110

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES AND THE NATIONAL ELECTRICAL CODE, 2017 EDITION, AND AMENDMENTS, IF ANY. AS A MINIMUM, ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL LICENSES, FEES, PERMITS, AND UTILITY CHARGES. BOTH CONTRACTOR AND INSTALLING MECHANIC ARE REMINDED THAT SINCE THE NATIONAL ELECTRICAL CODE IS BY STATUTORY INCLUSION A PART OF THE LAWS OF THE STATE THEY BEAR A PRIME RESPONSIBILITY TO COMPLY WITH IT EVEN WHEN THE DRAWINGS OR SPECIFICATIONS DENOTE AN APPARENT VIOLATION. THIS SHOULD BE OBSERVED CAREFULLY AND CONTINUOUSLY, PARTICULARLY DURING ESTIMATING FOR PROPOSAL, AND ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.

2. ALL WORK SHALL CONFORM TO BEST ELECTRICAL PRACTICE AND SHALL BE GUARANTEED AGAINST DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF OWNER AND SCO ACCEPTANCE.

3. ELECTRICAL CONTRACTOR SHALL MAINTAIN ON THE SITE AN ADEQUATE ADMINISTRATIVE SPACE WHERE ONE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS SHALL BE KEPT FOR THE WORK OF ALL TRADES ON THE PROJECT. THESE SHALL BE IN ADDITION TO THE SETS USED BY THE MECHANICS IN CARRYING OUT THEIR WORK ON THE PROJECT. THE PROJECTED LOCATION OF EVERY OUTLET, RACEWAY, OR ITEM OF EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT SHALL BE CHECKED AGAINST THE DRAWINGS AND SPECIFICATIONS OF ALL THE OTHER TRADES AS WELL AS BY DAY-TO-DAY CONFERENCE WITH WORKMEN AND SUPERVISORS OF ALL OTHER TRADES TO THE END THAT ANY CONFLICTS OR UNCERTAINTIES ABOUT LOCATIONS ARE RESOLVED BEFORE WORK IS INSTALLED. MOVING OF ITEMS FROM LOCATIONS SHOWN, REROUTING, OR CHANGES TO ACCOMPLISH ANY WORK AS SHOWN ON PLANS OR SPECIFICATIONS IN ORDER TO ACCOMPLISH THIS COORDINATION SHALL NOT BE CAUSE FOR CLAIM FOR ADDITIONAL COMPENSATION FOR THE WORK.

4. CONTRACTOR SHALL MAINTAIN AT THE SITE A COMPLETE SET OF ALL SHOP DRAWINGS, FIXTURE AND EQUIPMENT CUTS, MANUFACTURER'S WIRING DIAGRAMS AND INSTALLATION DATA. PERSONNEL SHALL STUDY THIS DATA BEFORE AND DURING INSTALLATION AND ROUGHING SO AS TO PREPARE FOR THE PROPER FIT AND FUNCTION UPON COMPLETION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND BEAR CONTRACTORS STAMP OF APPROVAL BEFORE BEING FORWARDED TO THE ENGINEER. PROVIDE FIVE(5) COPIES OF SHOP DRAWINGS SUBMITTED, IN A TIME TO AVOID DELAY OF WORK OR ANY PART THEREOF. ENGINEER/DESIGNER SHALL REVIEW SHOP DRAWING PROMPTLY, NOTING DESIRED CORRECTIONS, IF ANY, AND RETURN. APPROVED SHOP DRAWINGS BY THE ENGINEER/DESIGNER SHALL NOT BE CONSTRUED AS TO RELIEVING THE CONTRACTOR FROM RESPONSIBILITY WITH THE DESIGN OR TERMS OF THE CONTRACT DOCUMENTS NOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWING.

5. CONTRACTOR SHALL PROVIDE THE OWNER WITH A SET OF NEAT AND LEGIBLE RED LINE AS-BUILT DRAWINGS.

6. COMPLETELY ADEQUATE HOUSING SHALL BE PROVIDED ON THE SITE FOR ORDERLY AND CAREFUL STORAGE OF ALL MATERIALS AND EQUIPMENT. NOTHING SHALL BE STORED OUTSIDE EXCEPT CONDUIT, WHICH MAY BE STORED IN RACKS SO IT IS AT LEAST 12 INCHES ABOVE GROUND AND NOT SUBJECT TO MUD BEING SPATTERED ON IT.

7. IN GENERAL, MOUNTING HEIGHTS OF OUTLETS, SWITCHES, ETC. ARE NOT NOTED ON THE PLAN DRAWINGS. SCHEDULES AND NOTES SPECIFY "STANDARD" MOUNTING HEIGHTS FOR THESE ITEMS (SEE SPECS). STUDY CAREFULLY ELEVATIONS OF ALL WALLS AND CABINET WORK AS SHOWN ON ARCHITECTURAL DRAWINGS AND FIT OUTLETS TO SPACE AND TO AVOID CONFLICTS. OUTLETS SHALL ALWAYS BE LOCATED ABOVE AND NEXT IN, BACKSPLASHES WHEREVER POSSIBLE. COORDINATE OUTLET LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE ALL EQUIPMENT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTORS PRIOR TO ROUGH-IN.

8. ANY CONFLICT THAT CANNOT BE RESOLVED ON THE JOB SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER PRIOR TO ROUGHING.

9. ALL 20A/1P BRANCH CIRCUIT WIRE SIZING SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE TO ACCOMODATE VOLTAGE DROP:

VOLTS	DISTANCE	HOME RUN	REMAINDER OF CIRCUIT
120/208	0' - 50'	#12	#12
	50' - 100'	#10	#10
	100' - 150'	# 8	#10

10. PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT REQUIRING SINGLE PHASE CIRCUITRY.

11. CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

208/120V, 3-PHASE, 4-WIRE		480/277V, 3-PHASE, 4-WIRE	
PHASE A	BLACK	PHASE A	BROWN
PHASE B	RED	PHASE B	ORANGE
PHASE C	BLUE	PHASE C	YELLOW
NEUTRAL	WHITE	NEUTRAL	GRAY
GROUND	GREEN	GROUND	GREEN

12. ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING BUT NOT LIMITED TO BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, AND TRANSFORMER LUGS, SHALL BE RATED FOR USE WITH 75°C CONDUCTORS SIZED IN ACCORDANCE WITH NEC TABLE 310.15(B)(16).

13. ALL RECEPTACLES (UNLESS OTHERWISE NOTED) SHALL BE SPECIFICATION GRADE DUPLEX RECEPTACLES. SEE SPECIFICATION 262726 FOR APPROVED MANUFACTURERS. MOUNTING HEIGHT AS INDICATED ON THE DRAWINGS OR SYMBOL SCHEDULE. PROVIDE GROUND FAULT PROTECTION FOR ALL 120V 20 AMP RECEPTACLES WHERE INDICATED, OR LOCATED WITHIN 6 FEET OF THE OUTSIDE EDGE OF SINKS. RECEPTACLE ON A DEDICATED 20 AMP CIRCUIT SHALL BE RATED 20 AMPS. PROVIDE IDENTIFICATION LABELS AT EVERY RECEPTACLE COVERPLATE INDICATING ORIGINATING PANEL AND CIRCUIT NUMBER SO THAT LABEL CAN BE CLEARLY READ WHILE DEVICE IS IN USE WITH STANDARD PLUGS INSERTED. LABEL SHALL DISTINCTLY IDENTIFY DEDICATED RECEPTACLES.

14. ALL RACEWAYS SHALL BE METAL UNLESS SPECIFICALLY NOTED OR APPROVED OTHERWISE. ANY RACEWAY IN POURED CONCRETE SHALL BE RIGID METAL (HEAVY WALL). REFER TO SPECIFICATIONS FOR ALL OTHERS. ALL CIRCUITS SHALL BE IN RACEWAYS. CONCEAL ALL CABLE AND RACEWAYS IN FINISHED AREAS OF BUILDING. SET SCREW OR INDENTOR TYPE CONNECTOR OR COUPLING FITTINGS SHALL NOT BE PERMITTED. PROVIDE COMPRESSION GLAND TYPE FITTINGS MADE OF MALLEABLE, GALVANIZED, OR SHERARDIZED STEEL. POT-METAL OR CAST-TYPE FITTINGS SHALL NOT BE PERMITTED ON THIS PROJECT.

15. WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE CHAPTER 7. COORDINATION WITH THE OWNER AND ENGINEER SHALL BE MAINTAINED TO ENSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. FIRE STOPPING OF PENETRATIONS IN RATED WALLS AND FLOORS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE CHAPTER 7 USING APPROVED ASSEMBLIES SUCH AS THE FOLLOWING: CONDUIT PENETRATIONS OF 1 OR 2 HOUR GYPBOARD WALLS - U.L.#WL1001 CONDUIT PENETRATIONS OF 1 OR 2 HOUR CONCRETE OR BLOCK WALLS - U.L.#CAJ1001 CONDUIT PENETRATIONS OF 1 OR 2 HOUR CONCRETE FLOORS - U.L.#CAJ1001

16. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED AS REQUIRED BY U.L. COORDINATE CLOSELY WITH THE OWNER AND ENGINEER TO ENSURE THE INTEGRITY OF THE U.L. RATING IS MAINTAINED. BOXES OF 16 SQUARE INCHES OR LESS SHALL BE INSTALLED IN ACCORDANCE WITH U.L. "FIRE RESISTANCE RATINGS - ANSI/UL263 (BXUV) FOR WALL AND PARTITION ASSEMBLIES."

17. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE NEW AND LABEL LISTED BY A NORTH CAROLINA APPROVED THIRD PARTY TESTING AGENCY.

18. CONNECT NEW FIRE ALARM AND DETECTION SYSTEM DEVICES TO EXISTING BUILDING FIRE ALARM AND DETECTION SYSTEM. NEW DEVICES SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM AND MEET REQUIREMENTS OF N.C. STATE BUILDING CODE, ADA AND NFPA-72. PROVIDE NEW ZONE MODULES AND RELOCATE END-OF-LINE DEVICES AS REQUIRED.

19. COLOR - GRAY DEVICES, WITH SATIN FINISHED #302 STAINLESS STEEL COVERPLATES. ELECTRICAL CONTRACTOR SHALL VERIFY COLOR FOR DEVICES WITH OWNER PRIOR TO ORDERING.

20. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY A N.C. APPROVED THIRD PARTY TESTING AGENCY.

21 ALL SAFETY SWITCHES SHALL BE HEAVY-DUTY TYPE, NEMA 1 FOR INDOOR AND NEMA 3R FOR OUTDOOR UNLESS OTHERWISE NOTED. SAFETY SWITCHES SHALL BE FUSED OR NON-FUSED TYPE AS INDICATED. ALL FUSED DISCONNECT SWITCHES SHALL BE EQUIPPED WITH REJECTION CLIPS AS SPECIFIED BY THE MANUFACTURER. FUSED TYPE SHALL BE EQUIPPED WITH EITHER CLASS "RK1", "RK5" OR "J" FUSES AS INDICATED.

ELECTRICAL DEMOLITION NOTES (GENERAL)

1. ELECTRICAL CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES, DEVICES, SYSTEMS, AND ASSOCIATED WIRING AND CONDUIT WITHIN THE AREA TO BE DEMOLISHED OR AS REQUIRED TO FACILITATE NEW CONSTRUCTION. WIRING AND CONDUIT SHALL BE REMOVED BACK TO SOURCE. AT ELECTRIC PANELS, REMOVE CONDUCTORS COMPLETELY AND REMOVE CONDUIT BACK TO CEILING SPACE DIRECTLY ABOVE PANEL AND CAP. ABANDONED CIRCUIT BREAKERS SHALL BE TURNED OFF AND LABELED AS SPARE.

2. EXISTING DEVICES TO REMAIN SHALL BE RE-FED AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY.

3. COORDINATE REMOVAL AND FINAL DISPOSITION OF EQUIPMENT WITH OWNER.

4. ALL ABANDONED FLUSH JUNCTION BOXES SHALL HAVE BLANK STAINLESS STEEL COVERS INSTALLED.

5. LIGHTING FIXTURES WITHIN DEMOLITION AREA SHALL BE TURNED OVER TO OWNER OR DISPOSED OF, AS DIRECTED BY OWNER.

6. REMOVE ALL CONDUIT, WIRING, DEVICES, LIGHTING FIXTURES, EQUIPMENT AND ANY OTHER ELECTRICAL APPURTENANCES RENDERED USELESS OR ABANDONED DUE TO CONSTRUCTION. REMOVAL OF ABANDONED AND USELESS WIRING SHALL BE BACK TO THE SOURCE, EVEN IF OUTSIDE LIMITS OF CONSTRUCTION.

7. CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.

TELECOM GENERAL NOTES

1. PROVIDE ALL BACKBOXES, JACKS, CABLING, AND ALL NEW EQUIPMENT REQUIRED FOR COMPLETE TELECOMMUNICATIONS SYSTEM. PROVIDE 1-1/4" CONDUIT STUBBED OUT FROM ALL NEW OUTLETS TO THE COMMUNICATIONS PATHWAY. PROVIDE NEW CAT 6A CABLES IN MINIMUM 1-1/4" CONDUIT STUBBED OUT ABOVE CEILING IN CORRIDOR AND TERMINATED WITH INSULATING BUSHING, EXTEND WIRING TO NEAREST COMM. ROOM VIA COMMUNICATIONS PATHWAYS AND TERMINATE.
2. PROVIDE BUILDING STANDARD J-HOOKS FOR CORRIDOR COMMUNICATIONS CABLING PATHWAYS ABOVE CEILING. PROVIDE J-HOOKS AT 5' O/N CENTER ABOVE CEILING IN ALL CORRIDORS. CAREFULLY COORDINATE LOCATION WITH DUCT WORK, PIPING, AND OTHER BUILDING SYSTEMS ABOVE CEILING.
3. PROVIDE ADDITIONAL PULL BOXES AS NECESSARY ALONG CONDUIT RUNS TO ALLOW FOR FUTURE WIRE AND CABLE INSTALLATION.

1

NORTH CAROLINA STATE BUILDING CODE 2018
ENERGY CODE
LIGHTING COMPLIANCE - N/A

METHOD OF COMPLIANCE:

ENERGY CODE: ☐ PRESCRIPTIVE ☐ PERFORMANCE
ASHRAE 90.1: ☐ PRESCRIPTIVE ☐ PERFORMANCE

LIGHTING SCHEDULE:
LAMP TYPE: N/A
NUMBER OF LAMPS: N/A
BALLAST TYPE USED: N/A
NUMBER OF BALLASTS: N/A (ALL LED)
TOTAL WATTAGE: N/A
TOTAL INTERIOR WATTAGE SPECIFIED vs. ALLOWED: N/A vs. N/A
(WHOLE BUILDING OR SPACE BY SPACE): N/A
EXTERIOR LAMP EFFICACY: N/A

ADDITIONAL REQUIRED PRESCRIPTIVE COMPLIANCE
☐ 506.2.1 MORE EFFICIENCT MECHANICAL EQUIPMENT
☐ 506.2.2 REDUCED LIGHTING POWER DENSITY
☐ 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
☐ 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
☐ 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
☐ 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS

ELECTRICAL SYMBOL LEGEND (NOT ALL SYMBOLS ARE USED)

	SOLID LINES ON DEMOLITION PLAN IS EXISTING TO REMAIN. SOLID LINES ON NEW WORK PLAN IS NEW WORK. DASHED LINES ON DEMOLITION PLAN IS DEMOLITION WORK. DASHED LINES ON NEW WORK PLAN IS EXISTING TO REMAIN. RUN NEW CONDUITS PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.	J	WALL MOUNTED JUNCTION BOX, SIZE PER NEC OR AS INDICATED. MOUNTING HEIGHT AS INDICATED. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES
	HOMERUN TO PANELBOARD.		125 VOLT, 3 WIRE SINGLE RECEPTACLE IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.
	SURFACE, RECESSED, OR WALL MOUNTED LIGHTING FIXTURE CONNECTED TO NORMAL BRANCH CIRCUIT. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS.		125 VOLT, 3 WIRE DUPLEX RECEPTACLES IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) 2-GANG OUTLET BOX W/PLASTER RING. MOUNT 18" OR 46" ABOVE FINISHED FLOOR, OR 6" ABOVE DESK, COUNTERTOP, OR BACKSPLASH, UNLESS OTHERWISE INDICATED.
	SURFACE, RECESSED, SUSPENDED, OR WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY EGRESS BALLAST, DRIVER OR BATTERY BACKUP. LETTER INDICATES TYPE. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS.	GF / GF	125 VOLT, 3 WIRE GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE. MOUNTING AS INDICATED. HUBBELL GF SERIES OR EQUIVALENT.
SLT	480/277 VOLT PANELBOARD, FLUSH AND SURFACE MOUNTED RESPECTIVELY. DESIGNATION AS INDICATED. REFER TO PANELBOARD SCHEDULES FOR EXACT REQUIREMENTS.	WP / WP	125 VOLT, 15 AMP, 3 WIRE TAMPER-RESISTANT, WEATHER-RESISTANT. GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE WITH STAINLESS STEEL WHILE-IN-USE WEATHERPROOF COVER. MOUNTING AS INDICATED.
SLT	208Y/120 OR 120/240 VOLT PANELBOARD, FLUSH AND SURFACE MOUNTED RESPECTIVELY. SEE PANEL SCHEDULE FOR DESIGN INFORMATION. DESIGNATION AS INDICATED.	EWC	125 VOLT, 3 WIRE DUPLEX RECEPTACLE FOR CONNECTION TO ELECTRIC WATER COOLER. FLUSH MOUNT, COORDINATE LOCATION AND CONNECTION WITH PLUMBING CONTRACTOR.
	CEILING MOUNTED EXIT SIGN, SHADED AREA INDICATES FACE WITH DIRECTIONAL ARROWS AS SHOWN. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED BRANCH CIRCUIT.		TELEPHONE OUTLET 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES.
	WALL MOUNTED EXIT SIGN, SHADED AREA INDICATES FACE WITH DIRECTIONAL ARROWS AS SHOWN. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED BRANCH CIRCUIT.		TELEPHONE OUTLET MOUNTED 46" ABOVE FINISHED FLOOR, 6" ABOVE DESK/COUNTERTOP UNLESS OTHERWISE INDICATED. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES.
	EMERGENCY BATTERY PACK UNIT WITH NUMBER OF LAMPS AS INDICATED. LETTER (WHERE SHOWN) INDICATES TYPE. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED BRANCH CIRCUIT.		DATA OUTLET 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES.
S	SINGLE-POLE SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX, MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1221 SERIES OR EQUIVALENT.		DATA OUTLET MOUNTED 46" ABOVE FINISHED FLOOR OR 6" ABOVE DESK/COUNTERTOP UNLESS OTHERWISE INDICATED. MOUNT FLUSH IN FINISHED SPACES AND SURFACE IN UNFINISHED SPACES.
S_D	SINGLE-POLE DIMMING SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. LEVITON 6672 SERIES OR EQUIVALENT.		COMBINATION TELEPHONE/DATA OUTLET 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES. SUBSCRIPT, WHEN SHOWN, INDICATES NUMBER OF JACKS.
S_3	THREE-WAY SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX, MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1223 SERIES OR EQUIVALENT.		COMBINATION TELEPHONE/DATA OUTLET MOUNTED 46" ABOVE FINISHED FLOOR OR 6" ABOVE DESK/COUNTERTOP UNLESS OTHERWISE INDICATED. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES. SUBSCRIPT, WHEN SHOWN, INDICATES NUMBER OF JACKS.
S_{3D}	THREE-WAY DIMMING SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX, MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. LEVITON 6674 SERIES OR EQUIVALENT.	OS	OCCUPANCY MOTION SENSOR SWITCH TO CONTROL LIGHT FIXTURES. 120VAC CEILING MOUNTED. SEE SPECIFICATIONS.
S_M	MOTOR RATED CONTACT SWITCH WITH POLES AS REQUIRED, IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46" ABOVE FINISHED FLOOR OR WITHIN SIGHT OF MOTOR BEING SERVED, UNLESS OTHERWISE INDICATED.	S_{OS}	OCCUPANCY SENSOR WALL SWITCH TO CONTROL LIGHT FIXTURES. WALL MOUNT 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. SEE SPECIFICATIONS.
SS	TWO SINGLE-POLE SWITCHES WIRED FOR MULTI-LEVEL LIGHTING. ONE SWITCH SHALL CONTROL INNER LAMP(S) IN EACH FIXTURE WHILE ADJACENT SWITCH SHALL CONTROL OUTER LAMPS. HUBBELL 1221 SERIES OR EQUIVALENT.	DC	ROOM LIGHTING DIMMING CONTROLLER INSTALLED ABOVE ACCESSIBLE CEILING, MOUNT TO 4" X 4" X 2 1/8" DEEP ELECTRICAL BOX, SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
S_3S_3	TWO 3-WAY SWITCHES FOR MULTI-LEVEL SWITCHING. ONE 3-WAY SWITCH SHALL CONTROL INNER LAMP(S) IN EACH FIXTURE WHILE ADJACENT 3-WAY SWITCH SHALL CONTROL OUTER LAMPS. HUBBELL 1223 SERIES OR EQUIVALENT.		ENCLOSED CIRCUIT BREAKER MOUNTED 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	MAGNETIC MOTOR STARTER, FVNR UNLESS OTHERWISE INDICATED. SUBSCRIPT INDICATES NEMA SIZE. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.		FUSED SAFETY SWITCH, SIZE AND NUMBER OF POLES AS INDICATED BY SUBSCRIPTS. PROVIDE FUSES PER NAMEPLATE OF EQUIPMENT SERVED UNLESS OTHERWISE INDICATED. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	FLUSH MOUNTED JUNCTION BOX FOR CONNECTION TO SECURITY SYSTEM CCTV CAMERA.		NON-FUSED SAFETY SWITCH, SIZE AND NUMBER OF POLES AS INDICATED BY SUBSCRIPTS. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
DR	DOOR MAGNETIC HOLD RELEASE	IC	REMOTE INTERCOM STATION MOUNTED 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED. SUBSCRIPT, WHEN SHOWN, INDICATES ZONE.
FACP	FIRE ALARM CONTROL PANEL, FLUSH AND SURFACE MOUNTED RESPECTIVELY.	CR	FLUSH MOUNTED SECURITY SYSTEM CARD READER MOUNTED 46" ABOVE FINISHED FLOOR, UNLESS OTHERWISE INDICATED. SUBSCRIPT, WHEN SHOWN, INDICATES ZONE.
F	MANUAL FIRE ALARM PULL STATION IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX 46" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.	L	FIRE ALARM SYSTEM DUCT DETECTOR REMOTE ALARM LAMP, CEILING MOUNTED.
V	FIRE ALARM SYSTEM VISUAL SIGNAL LIGHT IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX INSTALLED SO THAT BOTTOM OF STROBE IS 80" ABOVE FLOOR OR 6" BELOW CEILING, WHICHEVER IS LOWER.	R	FIRE ALARM RELAY. SUBSCRIPT CR, WHEN SHOWN, INDICATES PROGRAMMABLE CONTROL RELAY. SUBSCRIPT MM, WHEN SHOWN, INDICATES MONITORING MODULE.
H	FIRE ALARM SYSTEM COMBINATION AUDIOVISUAL SIGNAL SPEAKER AND LIGHT IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX INSTALLED SO THAT BOTTOM OF STROBE 80" ABOVE FLOOR OR 6" BELOW CEILING, WHICHEVER IS LOWER.	DD	FIRE ALARM SYSTEM DUCT DETECTOR WITH REMOTE ALARM LAMP, FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR UNLESS OTHERWISE INDICATED.
SD	CEILING MOUNTED SMOKE DETECTOR. "B" SUBSCRIPT INDICATES SOUNDER BASE.	FS	SPRINKLER SYSTEM WATER FLOW SWITCH. PROVIDED AND INSTALLED BY SPRINKLER CONTRACTOR, CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE INDICATED.
HE	FIRE ALARM SYSTEM CEILING MOUNTED HEAT DETECTOR FOR ELEVATOR RECALL.	TS	SPRINKLER SYSTEM VALVE TAMPER SWITCH. PROVIDED AND INSTALLED BY SPRINKLER CONTRACTOR, CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE INDICATED, SUBSCRIPT, WHEN SHOWN INDICATES ZONE .
H	FIRE ALARM SYSTEM CEILING MOUNTED HEAT DETECTOR.	D	FIRE ALARM SYSTEM DOOR HOLD OPEN DEVICE.

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURERS	CATALOG INFORMATION	LAMP DATA NO	LAMP DATA TYPE	BALLAST DATA NO	BALLAST DATA TYPE	INPUT WATTS	VOLTAGE	MOUNTING	FIXTURE DESCRIPTION	REMARKS
Gc	COLUMBIA	LXEM4-40LW SERIES	1	LED 4000LM/4000K	1	0-10V DIMMING	36	120	WALL	4' LED STRIP, FIBERGLASS HOUSING, FROSTED ACRYLIC LENS, 120V, SEALED AND GASKETED, U.L. LISTED WET.	MOUNT FIXTURE HORIZONTALLY NEAR BOTTOM OF OF ELEVATOR PIT.
	LITHONIA	FEM LED SERIES									
	PHILIPS	V2 SERIES									
	METALUX	4VT2-LD4 SERIES									

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Union Deck Elevator Replacement

SCO ID # 20-22031-01A

UNC Charlotte
8755 Student Union Lane
Charlotte, NC 28223

SCO ID NO. 20-22031-01A

PROJECT NO. 20142

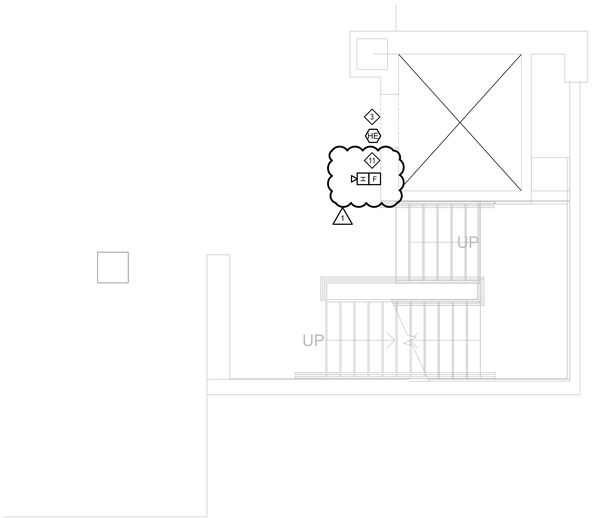
DATE ISSUED 10/06/2021

REVISIONS		
#	DESCRIPTION	Date
1	ADDENDUM NO. 01	10/13/20

GENERAL NOTES AND SYMBOL LEGEND

E001

SHEET NUMBER OF



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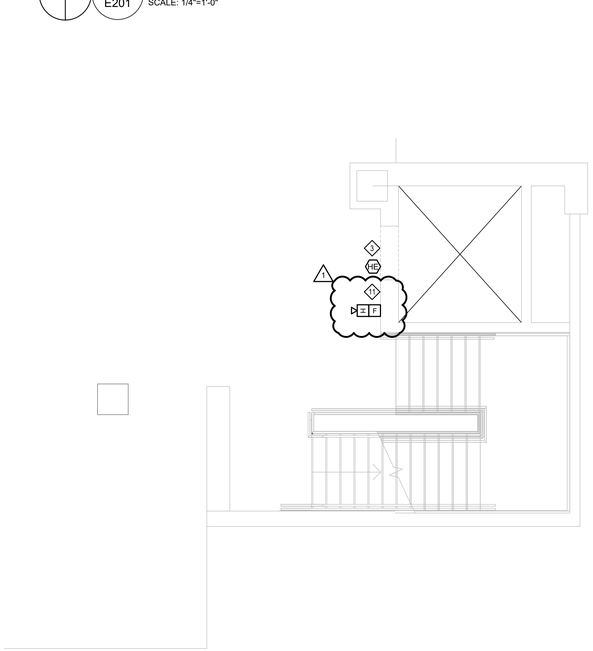
3 E201

ELECTRICAL NEW WORK - THIRD FLOOR

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

SHEET NOTES

1. CONFIRM EXISTING RECEPTACLE IS A GFY TYPE OR PROVIDE NEW GFI RECEPTACLE.
2. PROVIDE NEW HEAT DETECTOR, MOUNT IN PIT AT 6" ABOVE PIT FLOOR.
3. PROVIDE NEW HEAT DETECTOR FOR ELEVATOR RECALL.
4. SUMP PUMP IN PIT TO BE CONNECTED TO CONTROL PANEL ON WALL BETWEEN ELECTRICAL ROOM 102 AND TELECOM ROOM 103A.
5. DE-WATERING PUMP TO BE CONNECTED TO CONTROL PANEL ON WALL BETWEEN ELECTRICAL ROOM 102 AND TELECOM ROOM 103A.
6. INDOOR UNIT IN ELEVATOR EQUIPMENT ROOM TO BE CONNECTED TO OUTDOOR CONDENSOR UNIT. WIRING AND DISCONNECTS TO BE PROVIDED AS DESCRIBED IN DETAIL 5/E301.
7. PROVIDE 2 DATA LINES TO ELEVATOR CONTROLS: ONE FOR VOIP COMMUNICATIONS AND ONE FOR VIDEO COMMUNICATIONS.
8. PROVIDE NEW 100A/3P SHUNT TRIP CIRCUIT BREAKER WITH AUXILLIARY CONTACTS THAT MEETS ELEVATOR CODE REQUIREMENTS. TWO SETS OF AUXILLIARY CONTACTS SHALL BE PROVIDED. ONE SET OF CONTACTS ARE USED TO SHUNT TRIP CIRCUIT BREAKER WHEN ACTIVATED BY FIRE ALARM SYSTEM. SHUNT TRIP ACTIVATION MUST BE DELAYED BY MINIMUM OF 60 SECONDS AFTER FIRE ALARM ACTIVATION. SECOND SET OF CONTACTS ARE USED TO PREVENT ELEVATOR BATTERY LOWERING OPERATION FROM FUNCTIONING WHEN THE DISCONNECT IS IN THE OFF POSITION PER ELEVATOR SPECIFICATIONS. IF EXISTING ELEVATOR DISCONNECT HAS THESE FEATURES BUILT INTO THE DEVICE, THEN IT DOES NOT HAVE TO BE REPLACED.
9. PROVIDE NEW SIMPLEX 4100ES CPU IN EXISTING FIRE ALARM CONTROL PANEL THAT IS COMPATIBLE WITH NEW AND EXISTING FIRE ALARM DEVICES.
10. COORDINATE DATA CABLES WITH ELEVATOR EQUIPMENT VENDOR. FOUR (4) DATA CABLES TO BE PROVIDED BETWEEN TELECOM ROOM AND THE ELEVATOR CAB FOR OWNER SECURITY DEVICES. ELEVATOR VENDOR TO PROVIDE DATA AND VOIP BETWEEN THE ELEVATOR CONTROLS AND THE ELEVATOR CAB TO PROVIDE VOICE AND VIDEO IN THE CAB AS REQUIRED BY THE ELEVATOR CODE, ASME A17.1-2019.
11. EXISTING FIRE ALARM DEVICES TO REMAIN IN PLACE.



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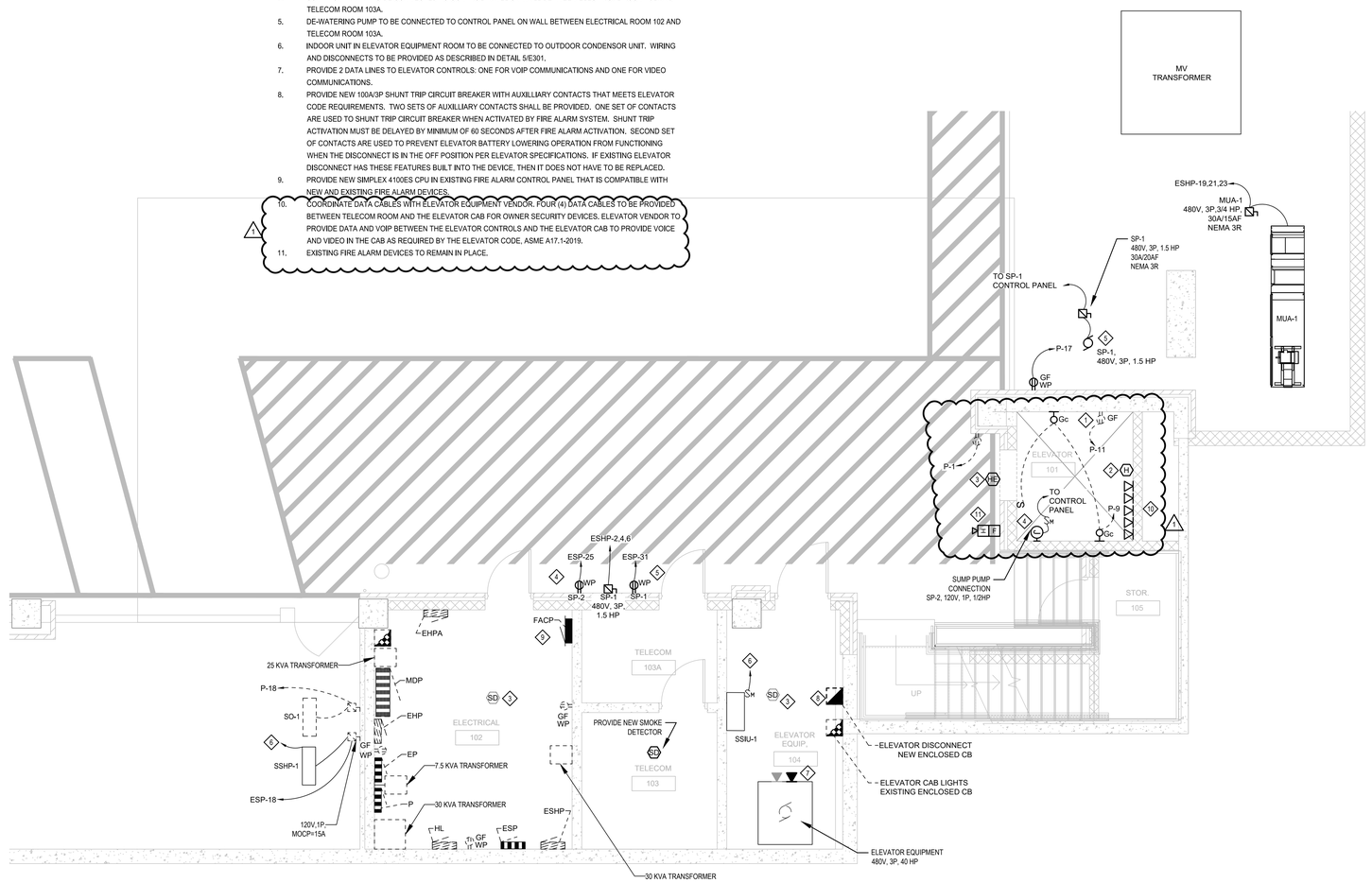
2 E201

ELECTRICAL NEW WORK - SECOND FLOOR

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



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1 E201

ELECTRICAL NEW WORK - FIRST FLOOR

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

LINETYPE LEGEND	
- - - - - - - - - -	EXISTING TO REMAIN
————————	NEW WORK

1/4"=1'-0" 4' 2' 0 4' 8'

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ELECTRICAL
POWER PLAN
NEW WORK

E201

SHEET NUMBER OF