

PROJECT: 2026 Elevator Replacement Project
Scottish Corners Elementary School

Dublin City School District Board of Education
6371a Shier Rings Road
Dublin, OH 43016

ADDENDUM 2

Revision to **Construction Documents**

ISSUE DATE: February 26, 2026

The following revisions modify the existing statements in the Construction Documents and/or Pre-Bid Specifications. This amended information takes precedence over the previous Construction Documents and/or Pre-Bid Specifications statements.

1. Attached please find the Pre-Bid Meeting **Minutes** and **SIGN-IN SHEET**.
2. Answers to **RFIs**:
 - a) Reference spec 14 24 01 item 1.3.C: There are not any special or supplemental conditions.
 - b) Elevator battery lowering to be included.
 - c) Sprinkler at top of shaft and drain at elevator pit are existing to remain.
 - d) Elevator power consumption to be based on 80 starts per hour.
 - e) Hydraulic oil to be replaced with new and the existing oil to be properly removed by the elevator company from the site.
 - f) Hoistway frames to be retained and repainted.
 - g) Hoistway entrance sills and support, facia and hanger covers to be retained.
 - h) Car top control station, emergency audible signal, and work light with receptacle to be new.
 - i) Replace the car sill with stainless steel sill and sill extension between the car entrance column to interior face of the car front return.
 - j) Transom to be new.
 - k) 3D portion of the elevator door edge should integrated into the new bottom of the new transom.
 - l) Hoistway and car headers and integral tracks to be retained.
3. Modification to **CONSTRUCTION SPECIFICATIONS**:
 - a. **Section 14 24 01 – Hydraulic Passenger Elevator Modernization**
 - i. Item 1.5.D.3 deleted.
 - ii. Item 1.5.G deleted.
 - iii. Item 1.6.2.C to include 80 starts per hour.
 - iv. Item 1.9.A.3 to list Ohio Building Code.
 - v. Item 4.1 to note existing 2nd floor elevator machine room.
 - vi. Item 4.2.C deleted.

- vii. Item 4.4.A.2 retain hoistway door track.
- viii. Item 4.5.B existing hoistway frames to be retained and repainted.
- ix. Item 4.6.B facia and hangers covers to be retained.
- x. Item 4.7.I new car sill.
- xi. Item 4.7.L retain car door track.
- xii. Item 4.7.M retain car door header.
- xiii. Item 4.10.C.2 transom to be new.

4. Modification to **CONSTRUCTION DRAWINGS:**

a. **Sheet G101**

- i. Hoistway door frames to be retained and repainted.

b. **Sheet E101**

- i. Data to be routed by contractor from MDF in room 117 to elevator machine room.
- ii. Electric circuits revised for receptacle and ductless split.

Attachments:

- 1. Pre-Bid Meeting Agenda and Sign-in Sheet.
- 2. Revised Specification Section 14 24 01.
- 3. Revised Drawing Sheets G101 and E101.

End of Addendum 2

Pre-Bid Meeting Minutes

Dublin City Schools

2026 Elevator Replacement Project Scottish Corners Elementary School

Date: Thursday February 19, 2026

Time: 8:00 am

1. Intro

- a. This is a pre-bid meeting for the 2026 Elevator Replacement Project at Scottish Corners Elementary School for Dublin City Schools. Project involves modernization of 1 hydraulic 2-stop elevator. Kramer Engineers is the Design Professional on this project. The purpose of this meeting is to review selected administrative requirements, provide an overview of the project scope, and provide an opportunity for bidders to ask questions. Nothing discussed in this meeting shall change the bid documents. Any modifications to the bid documents will be issued by addendum.

2. Sign-In Sheet

- a. A sign-in sheet is being captured by the Design Professional so please confirm they have your attendance and contact info before you leave. A copy will be provided in addendum 2.

3. Access to Bid Documents

- a. The bid documents are available for download from the district's website (<https://www.dublinschools.net/departments/operations/bids-and-rfps>).

4. Bid Schedule

- a. Bids shall be enclosed in a sealed envelope addressed to Dublin City School District Board of Education, ATTN: Jeff Stark, Chief Operating Officer, 6371a Shier Rings Road, Dublin, Ohio 43017. Bids will be accepted by 2:00 pm on March 3, 2026.
- b. Questions regarding plans and specifications should be address in writing to dstaudt@kramerengineers.com, Attn: Dan Staudt at Kramer Engineers.
- c. Addenda will be posted on the district website, with the final addendum posted no later than 72 hours before bids are due. Bidders must acknowledge all addenda on the bid form.
- d. A Bid Guaranty and Contract Bond are required.

5. Estimate of Costs

- a. Base Bid: \$257,000.00.

6. Contract Duration

PROJECT SCHEDULE: On site construction work to take place summer of 2026, as outlined below:

- a. Construction to start 6/1/2026 with substantial completion by 8/1/2026 and final completion by 8/14/2026.

7. Other Requirements

- a. Working hours during summer break shall be 6a-6p unless otherwise approved by district.
- b. Background checks and identification badges are required for all onsite contractors and subcontractors.

8. Project Scope

- a. Project includes modernization of existing elevator:
 - 1. State ID: 29466
 - 2. 2-stop hydraulic
 - 3. Original install 1987: Otis
 - 4. Existing capacity/speed to be maintained (2500LBS/100FPM)
- b. New power units and controls. Existing jack to remain.
- c. New elevator doors and operators.
- d. Elevator cab finish upgrades.
- e. Emergency 2-way communication audio/visual as required by code.
- f. Firefighters' operation.

9. Walk Facility

- a. Walk through elevator and relevant work areas at Scottish Corners Elementary School.

- END -

**PRE-BID SIGN-IN SHEET****Project:** 2026 Elevator Replacement Project Scottish Corners Elementary School**Meeting Date:** 02-19-2026**Facilitator:** Daniel Staudt**Place/Room:** Scottish Corners Elementary School Art Room

Name	Company	Phone	E-Mail
Daniel Staudt	Kramer Engineers	614-233-6911	dstaudt@kramerengineers.com
Becky Mauk	Lerch Bates	614-734-4846	becky.mauk@lerchbates.com
Gabrielle Curphey	Elford	614-601-8028	gcurphey@elford.com
Kurt Stanley	Otis	614-749-8756	kurt.stanley@otis.com
Tony Swartz	Otis	614-402-0104	tony.swartz@otis.com
Dave Fetters	RSG	614-477-2434	dferrers@robertssg.com
Kyle Berry	TKE	330-390-5307	kyle.berry@tkelevator.com
Ari Conners	TKE	614-787-9366	ariel.conners@tkelevator.com
Earnest Harris	Harris Electrical Services	614-554-8749	e.harris683@sbcglobal.net

SECTION 14 24 01
HYDRAULIC PASSENGER ELEVATOR MODERNIZATION

PART 1 - GENERAL

1.1. SUMMARY

A. Section includes modernization of hydraulic elevators as follows:

1. One (1) passenger elevator(s), Cars [1].

1.2. DEFINITIONS

- A. Technical terms used are defined in the latest edition of the Safety Code for Elevators and Escalators, ASME A17.1. or in this section.
- B. ELEVATOR CONSULTANT or CONSULTANT refers to Lerch Bates Inc. (Lerch Bates).
- C. PROVIDE means “furnish and install.”
- D. MANUFACTURER means either the Original Equipment Manufacturer (OEM) or the principal manufacturer of a component or system.
- E. RETAIN means, unless otherwise specified, the existing equipment is to be left in place with no alterations and no change in the original manufacturer’s designed performance or functionality. Items that are “retained” shall be thoroughly cleaned in place and adjusted to achieve originally designed function.
- F. REFURBISH means, unless otherwise specified, the existing equipment is to be cleaned, repainted, repaired, and parts replaced to put the equipment into a condition to provide the same appearance, performance, and functionality as the equipment provided when it was originally installed. Unless otherwise specified, the scope of replacement of components is limited to those items currently available for purchase as replacement parts from the manufacturer or after-market suppliers approved by the manufacturer.
- G. REUSE means that the Contractor shall carefully remove equipment from the existing installation, avoiding any damage or additional wear. Store in a safe location to maintain equipment in its pre-removal condition. Reinstall and incorporate into the modernized elevator installation using the same procedures and recommendations provided by the manufacturer of the equipment.
- H. CALL BACK means a request from the Owner to the Contractor to provide a technician on site to evaluate an elevator that is out of service or not functioning properly, rectify the root cause of the malfunction, and place the unit back into normal service.
- I. INCLUDES or INCLUDING means including the items specified but not limited solely to those items if additional work or components are required to achieve the specified outcome.
- J. Words in the singular shall include the plural whenever applicable or context so indicates.

1.3. WORK INCLUDED

- A. Provide all labor, engineering, tools, transportation, services, supervision, materials, and equipment necessary for and incidental to satisfactory completion of required work as indicated in Contract Documents.
- B. Provide all required staging, hoisting and movement of new equipment, reused equipment, or removal of existing equipment.
- C. Applicable conditions of Owner’s General, Special, and Supplemental Conditions.

- D. Scope of work includes, but is not limited to, the following:
 - 1. Coordination, scheduling, and management of work of component suppliers and subcontractors.
 - 2. Furnish and install equipment as specified, utilizing existing and/or modified hoistways and machine rooms.
- 1.4. ALLOWANCES
- 1.5. RELATED WORK COORDINATION
 - A. General:
 - 1. Coordinate the following requirements with other trades.
 - B. Miscellaneous Steel:
 - 1. Pit ladders, working platforms, inspection platforms, guard rails, divider beams.
 - C. Electric:
 - 1. Electrical service, outlets, lights, switches in elevator machine rooms and pits.
 - 2. Coordinate battery lowering and emergency power electrical requirements.
 - D. Sprinklers:
 - 1. Including installation of sprinkler systems in the elevator pits or shaft per NFPA 13.
 - E. HVAC:
 - 1. Provide necessary information to General Contractor and coordinate installation of equipment for elevator machine rooms.
 - F. Finishes:
 - 1. Cab interiors, hoistway entrances, fixtures.
- 1.6. ACTION AND INFORMATIONAL SUBMITTALS
 - A. Within sixty calendar days after award of contract and before beginning equipment fabrication submit field verified existing installation information for review.
 - 1. Hydraulic Car Information:
 - a) Existing Total Car Weight:
 - 1) Documented on crosshead data tag, all cars.
 - 2) Field Verified: weigh single cars and one car per group of each identical duty type.
 - b) Estimated Gross Load on Jack
 - 2. Power Confirmation Information: Field verified existing conditions at each elevator main disconnect:
 - a) Actual maximum available voltage and current.
 - b) Verify true earth ground value.
 - B. Within sixty calendar days after award of contract and before beginning equipment fabrication submit planned modernization design information, shop drawings, and required material samples for review. Allow thirty calendar days for response to initial submittal.

- C. Indicate equipment lists, reactions, and design information on layouts <>in table form, including:
1. Car:
 - a) Total car weight to be included on new crosshead data tag.
 - b) Written confirmation that designed modernization total combined weight of car and rated load:
 - 1) Does not vary by more than 5% from that of the original installation.
 - c) Verify buffer capacity via data tags or known manufacturing data.
 2. Power Confirmation Information: Design for existing conditions.
 - a) Motor horsepower and code letter designation.
 - b) Motor starter in-rush current, full load running current, and demand factor.
 - c) Engineered power consumption based on hydraulic elevator with 80 starts per hour full load.
 - d) Written confirmation that existing electrical provisions are adequate for post modernization installation equipment requirements.
 3. Written confirmation that total planned modernization reactions on building structure do not exceed originally designed reactions by more than 5%. If installation has been altered previously and original car top data tag is missing, confirm that new reactions will not exceed existing reactions. Reaction calculations shall include:
 - a) Gross Load on Jack.
 - b) Traveling Cables.
 - c) Total Car Weight.
 - d) Car Capacity.
 4. Product Data, Including:
 - a) Capacities, sizes, performances, operation, control, signal systems operations, safety features, finishes, and similar information.
 - b) Product data for car enclosures and hoistway entrances.
 - c) Product data for signal fixtures, lights, graphics, tactile marking plates, and details of mounting.
 - d) Full details of ascending car protection means and installation.
 - e) Two-way conversation devices.
 - f) Post-modernization machine room heat emissions in BTU.
- D. Shop Drawings:
1. Fully Dimensioned Fixture Drawings:
 - a) Car operating panels.
 - b) Car floor indicators.
 - c) Hall stations.

- d) Destination/landing input stations.
- e) Position indicators.
- f) Hall lanterns.
- g) Access key switch.
- E. Samples for Initial Selection: For finishes involving surface treatment or paint.
- F. Samples for Verification:
 - 1. For exposed car, hoistway door and frame, and signal equipment finishes.
 - 2. Samples of Sheet Materials: 3" (75 mm) square.
 - 3. Running Trim Members: 4" (100 mm) lengths.
- G. Submittal review shall not be construed as an indication that submittal is correct or suitable or that the work represented by submittal complies with the Contract Documents. Compliance with Contract Documents, Code requirements, dimensions, fit, and interface with other work is Contractor's responsibility.
- H. Acknowledge and/or respond to review comments within fourteen calendar days of return.
 - 1. Promptly incorporate required changes due to inaccurate data or incomplete definition so that delivery and installation schedules are not affected.
 - 2. Identify and cloud drawing revisions including Contractor elective revisions on each re-submittal.
- I. Contractor's revision response time is not justification for equipment delivery or installation delay.

1.7. CLOSEOUT SUBMITTALS

- A. Manufacturer's Warranty:
 - 1. Provide documentation of Manufacturer's Warranty in compliance with Contract Documents.
- B. Owner's Information:
 - 1. Provide electronic copies (flash drive or Consultant-approved equivalent) of written information necessary for proper maintenance and adjustment of equipment within 30 days following final acceptance. Final retention will be withheld until data is received and reviewed by Consultant. Include the following as minimums:
 - a) Straight-line wiring diagrams of "as-installed" elevator circuits with index of location and function of components. Provide one set reproducible master. Mount one set wiring diagrams on panels, racked, or similarly protected, in elevator machine room. Provide remaining set rolled and in a protective drawing tube. Maintain all drawing sets with addition of all subsequent changes. These diagrams are Owner's property.
 - b) Written Maintenance Control Program (MCP) specifically designed for the equipment included under this contract. Include any unique or product-specific procedures or methods required to inspect or test the equipment. In addition, identify weekly, bi-weekly, monthly, quarterly, and annual maintenance procedures, including statutory and other required equipment tests.
 - c) Instructions explaining all operating features, including all apparatus in the car and lobby control panels.

- d) Maintenance Control Program documentation for all equipment.
 - C. Provide Owner with the following:
 - 1. Any interface cards required for equipment maintenance, code mandated testing, and troubleshooting.
 - 2. Four sets of keys for all switches and control features properly tagged and marked.
 - 3. Diagnostic equipment complete with access codes, adjusters' manuals, and set-up manuals for adjustment, diagnosis, and troubleshooting of elevator system, and performance of routine safety tests.
- 1.8. PERMITS, TESTS, AND CERTIFICATES
- A. Permits:
 - 1. Secure and pay for all permits required for Work to be performed, including but not limited to:
 - a) Municipal and State permits.
 - 2. Post, maintain, and renew all permits in compliance with local governmental requirements.
 - 3. Obtain final close-out of all required permits.
 - 4. Tests and Inspections: Schedule with the AHJ and perform tests required by Governing Authority in accordance with procedure described in ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks in the presence of Authorized Representative of the AHJ.
 - B. Certificates: Obtain, pay for, and deliver to purchaser with all temporary and final inspection certificates provided by proper governing authorities.
 - C. Violations: Resolve any outstanding violations on record with the AHJ on devices being removed prior to final acceptance by the purchaser.
- 1.9. QUALITY ASSURANCE
- A. Compliance with Regulatory Agencies: Comply with most stringent applicable provisions of currently enforced codes, laws, and/or authorities, including revisions and changes in effect including, but not limited to:
 - 1. American Society of Mechanical Engineers:
 - a) ASME A17.1, Safety Code for Elevators, Escalators, and Moving Walks.
 - b) ASME A17.2, Guide for Inspection of Elevators, Escalators, and Moving Walks.
 - c) ASME A17.5, Elevator and Escalator Electrical Equipment.
 - d) ASME A17.6, Standard for Elevator Suspension, Compensation, and Governor Systems.
 - e) ASME A17.7, Performance Based Safety Code for Elevators, Escalators, and Moving Walks.
 - 2. National Fire Protection Association (NFPA):
 - a) NFPA 70, National Electric Code.
 - b) NFPA 80, Fire Doors and Windows.

- c) NFPA 101, Life Safety Code.
 - d) NFPA 13, Installation of Sprinkler Systems.
- 3. Ohio Building Code (OBC).
- 4. Accessibility:
 - a) ADAAG, Americans with Disabilities Act Accessibility Guidelines.
- 5. Local Codes:
 - a) State of Ohio.
- B. Inspections: Provide access to areas where work is being performed for the consultant at any time throughout the project.

1.10. MAINTENANCE

A. WARRANTY MAINTENANCE

- 1. Provide preventive maintenance and 24-hour emergency callback service for one year commencing on date of final acceptance of all modernized elevators by Owner. Warranty maintenance should expire concurrently for all elevators. Systematically examine, adjust, clean, and lubricate all equipment. Repair or replace defective parts using parts produced by the Contractor of installed equipment. Maintain elevator machine room, hoistway, and pit in clean condition.
- 2. Use competent personnel, acceptable to the Owner, supervised and employed by Contractor.

1.11. DELIVERY AND STORAGE

- A. The protection of all equipment and exposed finishes shall be the responsibility of the Elevator Contractor during delivery, handling, and installation until completion of project.
- B. The Elevator Contractor shall replace damaged materials with new at no additional cost for material and labor to Owner.
- C. Manufacturers' original packing must adequately protect materials during delivery.
- D. Deliver materials to the site ready for use in the accepted manufacturer's original and unopened containers and packaging, bearing labels as to type of material, brand name, and manufacturer's name. Delivered materials shall be identical to accepted samples.
- E. Store materials in original protective packaging under cover in a dry and clean location off the ground. Remove delivered materials that are damaged or otherwise not suitable for installation from the job site and replace with acceptable materials.
- F. It is the responsibility of the Contractor to properly store and protect all materials in space provided or designated by the Owner against damage, stains, scratches, corrosion, weather, construction debris, and environmental conditions.

PART 2 - PRODUCTS

2.1. MANUFACTURERS AND PRODUCTS

- A. Approved Elevator Systems:
 - 1. Approved subject to compliance with the requirements of the contract, provide products by one or more of the following Principal Manufacturers. Where specific product models are referenced below only those specific product models or types are approved.

- a) Otis.
 - b) Schindler.
 - c) TK Elevator.
 - d) Canton Elevator.
 - e) MEI – Total Elevator Solutions.
- B. Approved Elevator Components **In addition** to products manufactured by the Principal Manufacturers specified above, the following Manufacturers are approved for the specific components listed below, subject to the requirements of the contract:
- 1. Controllers:
 - a) GAL (Vantage).
 - b) MCE (Nidec).
 - c) Smart Rise.
 - 2. Hydraulic Machines (Power Units):
 - a) EECO.
 - b) Maxton.
 - c) IMO.
 - d) Bore-Max (Vantage)
 - 3. Passenger Elevator Door Equipment (Operators, Tracks, Hangers, and Closers):
 - a) GAL.
 - b) Wittur.
 - 4. Cab Interior Finishes (Standard/Pre-Engineered/Cab Systems):
 - a) FabACab.
 - b) Columbia Eelevator.
 - c) SnapCab.
 - d) Forms and Surfaces.
 - e) Elevator Cabs, Inc (ECI).
 - f) Globe Architectural & Metal.
 - 5. Car and Hall Signal Fixtures:
 - a) Innovation.
 - b) MAD Fixtures.
 - 6. Two-Way Audio Communication Device:
 - a) Janus/Rath.
 - b) Wurtec.
 - 7. Two-Way Video/Non-Verbal Communication Devices:

- a) Janus/Rath.
- b) Wurtec.
- 8. Door Edge Detector with Approaching Object Detection:
 - a) CEDES.
 - b) Janus.

2.2. MATERIALS

A. Steel:

- 1. Sheet Steel (Furniture Steel for Exposed Work): Stretcher-leveled, cold-rolled, commercial quality carbon steel, complying with ASTM A366, matte finish.
- 2. Sheet Steel (for Unexposed Work): Hot-rolled, commercial quality carbon steel, pickled and oiled, complying with ASTM A568/A568M-03.
- 3. Structural Steel Shapes and Plates: ASTM A36.

B. Stainless Steel: Type 302 complying with ASTM A240, with standard tempers and hardness required for fabrication, strength, and durability. Apply mechanical finish on fabricated work in the locations shown or specified, Federal Standard and NAAMM nomenclature, with texture and reflectivity required to match Architect's sample. Protect with adhesive paper covering.

- 1. No. 4 Satin: Directional polish finish. Graining directions as shown or, if not shown, in longest dimension.
- 2. No. 8 Mirror: Reflective polish finish with no visible graining.
- 3. Textured: 5WL as manufactured by Rigidized Metals or 5-SM as manufactured by Rimex Metals or approved equal with .050" mean pattern depth with bright directional polish (satin finish).
- 4. Burnished: Non-directional, random abrasion pattern.

C. Bronze: Stretcher-leveled, re-squared sheets composed of 60% copper and 40% zinc similar to Muntz Metal, Alloy Group 2, with standard temper and hardness required for fabrication, strength, and durability. Clean and treat bronze surfaces before mechanical finish. After completion of the final mechanical finish on the fabricated work, use a chemical cleaner to produce finish, Federal Standard, and NAAMM nomenclature, matching Architect's sample:

- 1. No. 4 Satin: Directional polish finish, fine-satin, clear-coated with clear-organic coating recommended by Fabricator. Provide graining direction as shown or, if not shown, in vertical dimension.
- 2. No. 8 Mirror: Reflective polish finish with no visible graining, bright-polished, clear-coated finish with clear-organic lacquer coating recommended by Fabricator.
- 3. Acid-Etched Pattern: Provide a No. 8 mirror reflective-polished background with selectively acid-etched, matte-textured, custom pattern as shown. Acid selection and dilution, if required, as recommended by Fabricator. After final finishing, coat bronze with clear-organic lacquer coating recommended by Fabricator.

D. Aluminum: Extrusions per ASTM B221; sheet and plate per ASTM B209.

E. Plastic Laminate: ASTM E84 Class A and NEMA LD3.1, Fire-Rated Grade (GP-50), Type 7, 0.050" ± 0.005" thick, color and texture as follows:

- 1. Exposed Surfaces: Color and texture selected by Architect.

2. Concealed Surfaces: Contractor's standard color and finish.
- F. Fire-Retardant Treated Particle Board Panels: Minimum 3/4" thick backup for natural finished wood and plastic laminate veneered panels, edged and faced as shown, provided with suitable anti-warp backing; meet ASTM E84 Class "I" rating with a flame-spread rating of 25 or less, registered with Local Authorities for elevator finish materials.
 - G. Natural Finish Wood Veneer: Standard thickness, 1/40" thoroughly dried conforming to ASME/HPMA HP-1983, Premium Grade. Place veneer, tapeless spliced with grain running in direction shown, belt and polish sanded, book-matched. Species and finish designated and approved by Architect.
 - H. Paint: Clean exposed metal parts and assemblies of oil, grease, scale, and other foreign matter and factory paint one shop coat of standard rust-resistant primer. After erection, provide one finish coat of industrial enamel paint. Galvanized metal need not be painted.
 - I. Prime Finish: Clean all metal surfaces receiving a baked enamel paint finish of oil, grease, and scale. Apply one coat of rust-resistant primer followed by a filler coat over uneven surfaces. Sand smooth and apply final coat of primer.
 - J. Baked Enamel Finish: Prime finish per above. Unless specified "prime finish" only, apply and bake three additional coats of enamel in the selected solid color.
 - K. Entrance Field Paint:
 - 1. Clean all surfaces to remove dirt and grease.
 - 2. Sand and finish surfaces as necessary to remove pits and scratches and prepare surface for painting.
 - 3. Apply filler to ensure smooth surface; sand and apply one coat of electrostatic enamel in the selected solid color.
 - L. Refinishing of natural metals: Remove existing protective finish. Buff as necessary to remove scratches. Regrain or finish as specified and protect as indicated for particular metal type.
 - M. Entrance Support Equipment within Hoistway: Include strut angles, headers, sill support angles, fascia, hanger covers, etc.
 - 1. Clean, remove, and check for corrosive activity. Replace components which exhibit severe deterioration.
 - 2. Tighten all fastenings.
 - 3. Repaint exposed surfaces with two coats of rust preventive primer.

PART 3 - PERFORMANCE AND OPERATION

3.1. PERFORMANCE REQUIREMENTS

- A. Car Speed: Allowable variance from contract speed of no more than +/- 10% in the up direction and +10%/-20% in the down direction.
- B. Car Capacity: Safely lower, stop, and hold rated load.
- C. Car Stopping Zone: $\pm 3/8$ " under any loading condition.
- D. Door Times: Seconds from start to fully open or fully closed:
 - 1. Car [1]: Door Open: 2.1 seconds. Door Close: 2.4 seconds.
- E. Car Floor-to-Floor Performance Time: Seconds from start of doors closing until doors are 3/4 open for center-opening doors or 1/2 open for side-opening doors, and car is level and stopped at next successive floor under any loading condition or travel direction:
 - 1. Car [1]: 14 seconds.
- F. Noise and Vibration Control:
 - 1. Airborne Noise:
 - a) Measured noise level of elevator equipment and its operation shall not exceed 55 dBA inside car under any condition including door operation and car ventilation exhaust blower on its highest speed.
 - b) Limit noise level in the machine room and control space relating to elevator equipment and its operation to no more than 80 dBA.
 - c) All dBA readings to be taken 3'-0" off the floor and 3'-0" from the equipment using the "A" weighted scale.
 - 2. Vibration Control: Mechanically isolate all new elevator equipment from the building structure and other components. Minimize objectionable noise and transmission of vibrations to occupied areas of the building.

3.2. ELEVATOR OPERATION REQUIREMENTS

- A. General:
 - 1. Cars automatically slow down and stop level at floors in response to car and landing calls with stops made in sequence in the established direction of travel, regardless of order in which buttons are pressed.
 - 2. Landing calls are canceled when the assigned car arrives at the landing.
 - 3. Automatic Dispatch Failure: Provide auxiliary dispatch system to automatically dispatch elevators in the event of failure of the primary control system.
 - 4. Hall Call Button Failure: Should failure of hall call button system occur, initiate operation providing predetermined service to all landings; elevators respond normally to car calls.
 - 5. Automatic Leveling:
 - a) When arriving at a floor cars level to within 1/8" above or below the landing sill prior to opening doors, without travelling past the landing during leveling
 - b) Maintain leveling accuracy regardless of carload, direction of travel, rope slippage or stretch.

B. Door Operation:

1. Passenger Elevators:

- a) Automatically open doors when car arrives at a floor.
- b) Stop and reopen doors or hold doors in open position upon activation of "door open" button.
- c) At expiration of normal dwell time, or upon activation of "door close" button, close doors:
 - 1) Prevent doors from closing and reverse doors at normal opening speed if door reopening device beams are obstructed while doors are closing, except during nudging operation.
 - 2) In event of door reopening device failure, provide for automatic shutdown of car at floor level with doors open
 - 3) Close cycle does not begin upon activation of "door close" button until normal door dwell time for a car or hall call has expired, except firefighters' operation.
- d) Nudging Operation:
 - 1) After beams of door reopening device are obstructed for a predetermined time interval (minimum 20.0-25.0 seconds), sound warning signal, and attempt to close doors with maximum of 2.5 foot-pounds kinetic energy.
 - 2) Activation of the door open button overrides nudging operation and reopens doors.
- e) Interrupted Beam Time:
 - 1) When beams are interrupted during initial door opening, hold door open a minimum of 3.0 seconds.
 - 2) When beams are interrupted after the initial 3.0 second hold open time, reduce time doors remain open to an adjustable time of approximately 1.0 1.5 seconds after beams are reestablished.
- f) Differential Door Time:
 - 1) Field adjustable time that doors remain open after stopping in response to calls.
 - 2) Car Call: Hold open time adjustable between 3.0 and 5.0 seconds.
 - 3) Hall Call: Hold open time adjustable between 5.0 and 8.0 seconds.
- g) Use hall call time when car responds to coincidental calls.
- h) Reopen doors when car is designated for loading.

C. Independent Service.

- 1. When feature is activated from within the car allow control of car only from buttons and controls inside the car.
- 2. Close doors by constant pressure on desired destination floor button or door close button.

D. Selective Collective Operation, Single Car:

- 1. Elevators operate via momentary pressure buttons to:

- a) Place hall call by selecting direction of travel at each hall landing (up and down buttons at each intermediate landing, single buttons at each terminal landing).
 - b) Place car call by selecting destination floor from inside the car (individual buttons for each floor served).
- 2. Hall calls, other than calls placed at the landing at which car is standing, start car, and cause the car to stop at first landing for which a call is registered in the direction of travel.
- 3. Stops are made in order in which landings are reached, irrespective of sequence in which calls are registered.
- 4. Parked Car (No Demand):
 - a) When feature is enabled elevator remains at landing of last assignment (if no further demand) with doors closed, for a predetermined amount of time (programmable for any amount of time). Upon expiration of time, the elevator returns to the main egress landing with the doors closed.
 - b) If feature is disabled, if no further demand, the elevator remains at landing of last assignment with the doors closed until a hall call is registered.
- 5. Car and Hall Lanterns:
 - a) Lanterns provide audio and visual signal upon each stop, regardless of responding to car or hall call.
 - b) Visual signal remains active from commencement of door opening until doors are completely closed.
- 6. Restoration of Normal Power:
 - a) At least 20 seconds prior to transfer from emergency power to normal power at the ATS, a pre-transfer signal is supplied to the elevator control system from the ATS.
 - b) Elevators operating on emergency power stop at the next available landing and remain there until normal power is restored.
- E. Battery Rescue Operation:
 - 1. Upon loss of normal power automatically lower the car to the nearest landing depending on the load in the car.
 - 2. Upon arrival at the landing, the elevator doors shall open automatically and remain open until regular door time has expired; the elevator shall then be removed from service.
 - 3. Upon restoration of normal power, the elevator shall automatically resume normal operation.
- F. Firefighters' Emergency Operation: Provide equipment and operation in accordance with applicable code requirements. Replace all Firefighters Emergency Operation key switches that control non-modernized elevators in this building to match modernized elevators when first car in group is returned to service.
- G. Battery Backup Operation for Emergency Lighting, Communication, and Alarm:
 - 1. Car mounted battery unit with solid-state charger to operate alarm bell, car emergency lighting, and voice communication system.
 - 2. Car lighting and communication shall be provided with a minimum of 4 hours of operation on back-up power during a loss of normal power, and a minimum of 1 hour of operation for car-mounted alarm, and any remote alarm mounted at the designated floor level.

3. Battery to be rechargeable with minimum five-year life expectancy.
 4. Provide constant pressure test button in service compartment of car operating panel.
 5. Provide lighting integral with portion of normal car lighting system.
- H. Emergency Car Communication System Operation:
1. Comply with all requirements of ASME A17.1 2019 and IBC 2018, or later editions if adopted by the AHJ.
 2. Hands-Free Communication System:
 - a) In Car System:
 - 1) Hands-free two-way audio communication system in each elevator car.
 - 2) Automatic dialer to include automatic rollover capability if call is not answered with minimum two numbers.
 - 3) Intercom type systems shall be capable of auto dialing out of the building to any active telephone number selected by Owner if intercom call is not answered.
 - 4) Means to identify building and car for Authorized Personnel and Emergency Personnel on demand.
 - 5) Activated by button in car identified with "PHONE" symbol or by external telephone call.
 - 6) Adjacent light jewel illuminates and flashes when call is acknowledged.
 3. Authorized Personnel Communication:
 - a) Communication system allows authorized personnel, via phone or intercom system, inside the building or at an outside location, to establish verbal communications with each elevator individually.
 - B) Provide car interior display video capability for entrapment assessment.
 4. Communication for Deaf, Hard of Hearing and Speech Impaired:
 - a) Means for non-verbal communication between passengers inside the elevator car and Authorized Personnel and Emergency Personnel inside or outside of the building.
 - b) System allows for in car video display of custom or preselected text messages generated by Authorized Personnel or Emergency Personnel.
 - c) Passengers inside the elevator car respond to text messages via "Yes" and "No" buttons that generate a visible indication at the location monitored by the Authorized/Emergency Personnel.

PART 4 - ELEVATOR ALTERATIONS

4.1. HYDRAULIC PASSENGER ELEVATORS:

ALTERATION SUMMARY		
CAR [1]:	EXISTING INSTALLATION	MODERNIZED INSTALLATION
Capacity:	2500 lbs.	No Change
Class of Loading:	Class A	No Change
Duty Type:	Passenger	No Change
Contract Speed:	100 fpm	No Change
Hydraulic Jack Type:	Holeless Two Stage	No Change
Machine Type:	Submersible Power Unit	No Change
Machine Location:	Adjacent at floor 2	No Change
Floors Served:	[1, 2] Front	No Change
Total Entrances:	[2] Front	No Change
Car Entrance Type:	Single Speed Center Opening (SSCO) Front	No Change
Hoistway Entrance Type:	Single Speed Center Opening (SSCO) Front	No Change
Entrance Size:	42" Wide x 84" (7'-0") High	No Change
Minimum Clear to Underside of Canopy:	96" High	No Change

4.2. MACHINE ROOM EQUIPMENT

- A. Provide and arrange equipment in existing machine room spaces.
- B. Identification: Permanently identify (painted on or securely attached) machine room equipment with minimum 3" characters corresponding to elevator identification.
 - 1. Driving machine (Power Unit).
 - 2. Transformer, choke/filter.
 - 3. Controller.
 - 4. Main line disconnect switch.
 - 5. Elevator hoistway pit equipment.
- C. Not Used.
- D. Hydraulic Machine (Power Unit):
 - 1. New:
 - a) Assembled unit mounted on isolating pads consisting of:
 - 1) Dry or submersible type positive displacement pump and induction motor.
 - 2) Dry type only with motors exceeding 50 hp.
 - 3) Master-type control valves combining:

- 4) Safety features.
 - 5) Holding, direction, bypass, stopping, manual lowering functions.
 - 6) Shut off valve.
 - 7) Oil reservoir with protected vent opening.
 - 8) Oil level gauge.
 - 9) Outlet strainer.
 - 10) Drip pan.
 - 11) Muffler.
- b) Enclose dry type units below oil reservoir with removable sheet steel panels lined with sound-absorbing material for applications with motors exceeding 40 hp.
- E. Motor Starter:
 - 1. Soft start type unit including:
 - a) Integral electronic overload protection.
 - b) Integral bypass.
- F. Muffler:
 - 1. In discharge oil line near pump unit.
 - 2. Design shall dampen and absorb pulsation and noise in the flow of hydraulic fluid.
- G. Piping and Oil:
 - 1. All piping, connections and oil required for the elevator system.
 - 2. Buried piping shall be secondarily contained with watertight Schedule 80 PVC sleeves between elevator machine room and pit.
 - 3. A minimum of two sound isolation couplings shall be provided between the pump unit and oil line and the oil line and jack unit.
 - 4. Provide 2-90° joints to reduce vibration and create wave diffraction.
 - 5. Provide isolated pipe stands or hangers.
- H. Shut-Off Valve:
 - 1. Oil line shut off valve in the machine room or accessible from outside the hoistway.
 - 2. Second valve in pit adjacent to jack unit.
- I. Battery Rescue System:
 - 1. Auxiliary power source shall be provided via 12-volt D.C. battery units installed in machine room or controller space.
 - 2. Include solid-state charger and testing means mounted in a common metal container.
 - 3. Battery to be rechargeable lead acid or nickel cadmium with a ten-year life expectancy.
- J. Controller: UL/CSA labeled:
 - 1. Compartment:

- a) Securely mount all assemblies, power supplies, chassis switches, relays, etc., on a substantial, self-supporting steel frame.
- b) Completely enclose equipment with covers. Provide means to prevent overheating.
- 2. Relay Design:
 - a) Magnet operated with contacts of design and material to insure maximum conductivity, long life, and reliable operation without overheating or excessive wear.
 - b) Provide wiping action and means to prevent sticking due to fusion.
 - c) Contacts carrying high inductive currents shall be provided with arc deflectors or suppressors.
- 3. Microprocessor-Related Hardware:
 - a) Provide built-in noise suppression devices providing a high level of noise immunity on all solid-state hardware and devices.
 - b) Provide power supplies with noise suppression devices.
 - c) Isolate inputs from external devices (such as pushbuttons) with opto-isolation modules.
 - d) Design control circuits with one leg of power supply grounded.
 - e) Safety circuits are not to be affected by accidental grounding of any part of the system.
 - f) System automatically restarts when power is restored.
 - g) System memory is retained in the event of power failure or disturbance.
 - h) Equipment is provided with Electro Magnetic Interference (EMI) shielding within FCC guidelines.
- 4. Wiring:
 - a) CSA labeled copper for factory wiring.
 - b) Neatly route all wiring interconnections and securely attach wiring connections to studs or terminals.
- 5. Permanently mark components (relays, fuses, PC boards, etc.) with symbols shown on wiring diagrams.
- K. Auxiliary disconnect: Provide controller or power unit mounted auxiliary, lockable "open," disconnect if mainline disconnect is not in sight of controller and/or machine.

4.3. HOISTWAY AND PIT EQUIPMENT

- A. Provide and arrange equipment in existing hoistway and pit spaces.
- B. Hydraulic Jack Assembly:
 - 1. Retain.
 - a) Repack
- C. Jack Support:
 - 1. Retain.

D. Shut-Off Valves:

1. New:

- a) Manual on/off valves in oil lines adjacent to pump unit and jack units in pit.

E. Guide Rails:

1. Retain:

- a) Clean rails and brackets.
- b) Remove rust.
- c) Repaint non-machined surfaces.
- d) Check and tighten all rail and bracket fastenings.

F. Buffers, Car:

1. Retain:

- a) Remove rust and repaint non-machined surfaces.

G. Access Ladders and Platforms: Provide permanent buffer and car safety access ladders and platforms if required to comply with Code requirements.

H. Terminal Stopping Devices:

1. New:

- a) Normal and final devices.

I. Electrical Wiring and Wiring Connections:

1. Conductors and Connections:

- a) Copper throughout with individual wires coded and connections on identified studs or terminal blocks.
- b) Use no splices or similar connections in wiring except at terminal blocks, control compartments, or junction boxes.

2. Conduit:

- a) Galvanized steel conduit, EMT, or duct.
- b) Flexible conduit length not to exceed 3'-0".

3. Traveling Cables:

- a) Provide multiple traveling cables per elevator if necessary to meet conductor and data transmission requirements. Include the following:
- b) Include all conductors needed for specified elevator operation and code required spares.
- c) Provide the following additional data transmission conductors. (Draka Type ETT round travelling cable or approved equal with lifetime product warranty)
- d) Tag spares in machine room.
- e) Provide cables from controller to car top.

4. Auxiliary Wiring:

- a) Provide conduit, wiring, connections, and machine room demarcation junction boxes for:
 - 1) Fire alarm initiating devices.
 - 2) Emergency two-way communication system.
 - 3) In car digital video displays.

4.4. HOISTWAY DOOR OPERATING EQUIPMENT

A. Horizontal Sliding Passenger Entrances:

1. Door Hangers, Hoistway:
 - a) New:
 - 1) Two-point suspension design.
 - 2) New rollers with neoprene roller surface.
 - 3) Eccentric upthrust roller adjustment.
2. Door Tracks, Hoistway:
 - a) Retain:
 - 1) Check and tighten all fastenings
3. Hoistway Door Interlocks and Pick-up Roller Assemblies:
 - a) New:
4. Hoistway Door Closers:
 - a) New:
 - 1) Spring activated spirator type.
5. Hoistway Door Unlocking Devices:
 - a) New:
 - 1) Include all drilling and ACM containment on existing door panels.
 - 2) Unlocking device including new escutcheon at all floors.
6. Hoistway Access Switches:
 - a) New:
 - 1) Top and bottom floors.
 - 2) Mount in wall located within easy reach of entrance to allow safe car top access by one person.
 - 3) Provide switch with faceplate.
7. Door Closed Detection:
 - a) Electrical contacts or a SIL rated device to detect closed position of hoistway doors.
 - b) Design and operation to comply with ASME A17.1 2019 or later edition.

- B. Floor Numbers: Stencil paint 4" high floor designations in contrasting color on inside face of hoistway doors or hoistway fascia in location visible from within car.

4.5. HOISTWAY ENTRANCE FRAMES AND DOOR PANELS

- A. Provide and arrange equipment in same location as existing entrances.

- B. Passenger Elevator Entrance Frames:

- 1. Retained:

- a) New Arabic floor designation/tactile marking plates:

- 1) Centered at 60" above finished floor.
 - 2) Located on both side jambs of all entrances.
 - 3) Minimum 4" high.
 - 4) Tactile marking indications shall be below Arabic floor designation.
 - 5) Permanently fastened.
 - 6) Provide plates at main egress landing with "Star" designation.

- b) New Car identification plate with Braille:

- 1) Mounted directly below floor designation/tactile marking plates.
 - 2) Located on both side jambs at Designated and Alternate levels.
 - 3) Finish and design to match floor designation/tactile marking plates.

- C. Horizontal Sliding Hoistway Door Panels:

- 1. New:

- a) 16-gauge steel, sandwich or pressed with ribbed construction and without binder angles.
 - b) Provide one leading edge of doors with rubber astragal.
 - c) Provide a minimum of two gibs per panel, one at leading and one at trailing edge with gibs in the sill groove entire length of door travel.
 - d) Provide one separate 4" steel reinforcement safety gib mounted between door gibs, where not integrated with door gibs.

- D. Frame and Door Panel Finishes:

- 1. Entrance Frames:

- a) Painted finish.

- 2. Hoistway Door Panels:

- a) Painted finish.

4.6. HOISTWAY ENTRANCE SILLS AND SUPPORT

- A. Sill Supports, Hoistway Entrance:

- 1. Retain:

- a) Check and tighten all fastenings.

B. Fascia, Toe Guards, and Hanger Covers:

1. Retain:

- a) Paint/Stencil floor number on fascia or hoistway wall all floors visible where car doors are initially opened.

C. Struts and Headers:

1. Retain:

- a) Check and tighten all fasteners.

4.7. CAR EQUIPMENT

A. Frame:

1. Retain:

- a) Check and tighten all fastenings.
- b) Adjust as required for plumb and square alignment.

B. Platform:

1. Retain:

- a) Adjust as necessary for plumb and level alignment.
- b) Reinforce if required.
- c) Check and tighten all fastenings.

C. Platform Guard:

1. Retain:

- a) Remove any rust and repaint.

D. Car Rail Guide Roller or Shoe Assemblies:

1. Retain:

- a) Check and tighten all fastenings.
- b) Replace all rollers or inserts.

E. Top of Car Guardrail:

1. New:

- a) Provide car top railings where fall hazard exceeds 12".
- b) Install guardrails, necessary hardware, and toe board to meet code requirements.

F. Car Top Control Station:

- 1. Mount to provide safe access and utilization while standing on car top.
- 2. Operating device with Up and Down direction buttons, a Run button, an Inspection/Automatic switch and Emergency Stop switch.
- 3. Operating device provides an audible and visible indicator that fire recall has been initiated.

4. Fix station to the car crosshead or provide portable station provided the extension cord and housing is permanently attached to the car crosshead.
 5. The car will be operated by constant pressure on the appropriate directional button and the Run button simultaneously.
 6. Normal operating devices will be inoperative while this device is in use.
- G. Car Top Emergency Audible Signal:
1. Provide on top of each elevator.
 2. Activation of Alarm Button or Emergency Stop switch will cause Emergency Audible Signal.
 3. Provide auxiliary power supply to provide 1-hr. power in the event of loss of normal power.
- H. Work Light and Duplex Plug Receptacle:
1. Work light on top and bottom of car.
 2. Car top light mounted to provide illumination of all car top equipment.
 3. GFCI protected duplex outlet. two (2) at top and one (1) at bottom of car.
 4. Include on/off switch and lamp guard.
- I. Car Sills – Passenger or Service Duty:
1. New:
 - a) Stainless steel sill and extension between the car entrance column to interior face of the car front return.
- J. Car Door Panels – Passenger or Service Duty:
1. New:
 - a) Fully enclosed 16-gauge steel, sandwich construction without binder angles
 - b) Constructed with interlocking, stiffening ribs.
 - c) Leading edges of center-opening doors equipped with rubber astragals full height of panel.
 - d) Minimum of two gibs per panel, one at leading and one at trailing edge with gibs in the sill groove entire length of door travel.
 - e) stainless steel satin finish.
- K. Car Door Hangers – Passenger or Service Duty:
1. New:
 - a) Two-point hanger roller with
 - b) Neoprene roller surface
 - c) Suspension with eccentric upthrust roller adjustment.
- L. Car Door Track – Passenger or Service Duty:
1. Retain:

- a) Check and tighten all fastenings
- M. Car Door Header – Passenger or Service Duty:
 - 1. Retain:
 - a) Check and tighten all fastenings
- N. Car Door Closed Detection:
 - 1. SIL rated device to detect closed position of car doors.
 - 2. Design and operation to comply with ASME A17.1 2019 or later edition.
- O. Car Door Interlock:
 - 1. Mechanical door interlock device to prevent:
 - a) Machine operation or power door opening outside of door zone.
 - b) Manual door opening from inside car outside of door zone.
 - 2. Design and operation to comply with ASME A17.1 2019 or later edition.
- P. Car Door/Gate Electrical Contact:
 - 1. New:
 - a) Prohibit car operation unless car door or gate is closed.
- Q. Door Clutch – Passenger or Service Duty:
 - 1. New:
 - a) Heavy-duty clutch, linkage arms, drive blocks and pickup rollers or cams to provide positive, smooth, quiet door operation.
 - b) Design clutch so car doors can be closed, while hoistway doors remain open.
- R. Restricted Opening Device:
 - 1. New:
 - a) Restrict opening of car doors to Code required limit outside unlocking zone.
 - b) Adjust for smooth and quiet operation with operating noise undetectable from inside any car or outside of the hoistway.
 - c) Plunger type restrictors not acceptable.
 - d) Mechanical angle to prevent door opening is acceptable.
- S. Passenger Door Operator:
 - 1. New:
 - a) High-speed, heavy-duty door linear/ Harmonic type operator capable of opening doors at no less than 2.5 fps.
 - b) Accomplish reversal in no more than 2½" of door movement.
 - c) Solid-state door control with closed loop circuitry to constantly monitor and automatically adjust door operation based upon velocity, position, and motor current.

- d) Maintain consistent, smooth, and quiet car door operation at all floors, regardless of door weight or varying air pressure.

T. Passenger Door Reopening Device:

1. New:

- a) Black fully enclosed infrared device with full screen infrared matrix or multiple beams extending vertically along leading edge of each door panel to minimum height of 7' 0" above finished floor.
- b) Integral device to detect passenger or vehicle approach from elevator lobby.

4.8. CAR OPERATING PANEL:

A. New:

1. Car [1].

- a) One (1) car operating panel(s) per car.
- b) Metal box containing operating fixtures mounted behind the car return panel.
- c) Vandal resistant.
- d) Provide Exposed Pushbuttons to Initiate:
 - 1) Car call registration.
 - 2) Alarm.
 - 3) Door open.
 - 4) Door close.
 - 5) Emergency push-to-call communication.
 - 6) Pushbuttons:
 - I. Provide minimum 3/4" diameter flush floor pushbuttons which illuminate to indicate call registration.
 - II. Brushed stainless buttons with illuminated LED halo.
 - III. Locate operating controls no higher than 48" above the car floor; no lower than 35" for emergency push-to-call button and alarm button.
 - IV. Identify buttons with cast tactile symbols recessed flush mounted.
- e) Locked Firefighters' Emergency Operation Panel:
 - 1) Openable by the same key which operates the Fire Operation switch.
 - 2) Including the following features:
 - I. Phase II fire access switch.
 - II. Firefighters' visual indication.
 - III. Call cancel button.
 - IV. Stop switch, manually operated.
 - V. Door open button.

VI. Door close button.

VII. Floors served signage.

f) Service Compartment

- 1) Provide lockable service compartment with recessed flush door.
- 2) Door material and finish to match car return panel or car operating panel faceplate.
- 3) Include Integral flush window for displaying the elevator operating permit on inside surface of door.
- 4) Include the following controls in lockable service cabinet with function and operating positions identified by permanent signage or engraved legend.
 - I. Access switch.
 - II. Light switch.
 - III. Three position exhaust blower switch.
 - IV. Independent service switch.
 - V. Constant pressure test button for battery pack emergency lighting.
 - VI. 120-volt, AC, GFCI protected electrical convenience duplex outlet.
 - VII. Card reader override switch.
 - VIII. Switch to select either floor voice annunciation, floor passing tone, or chime.
 - IX. Keyed stop switch.

2. Provide black paint filled (except as noted), engraved, or approved etched signage as follows with approved size and font:
 - a) Phase II firefighters' operating instructions on inside face of firefighters' compartment door.
 - b) Engrave filled red firefighters' operation on outside face of compartment door.
 - c) Building identification car number on main car operating panel(s).
 - d) Car capacity in pounds on service cabinet door.

4.9. COMMUNICATION

A. Car Communication System:

1. Hands free two-way communication instrument in car:
 - a) Mounted behind car operating panel.
 - b) Button on car operating panel to initiate two-way communication from Car.
 - c) Match car operating panel pushbutton design.
 - d) System includes:
 - 1) Auto dialer.
 - 2) Speaker.

- 3) Microphone.
- 4) Adjacent light jewel that illuminates and flashes when call is acknowledged.
- 5) Call button tactile symbol, engraved signage, and Tactile marking adjacent to button mounted integral with car front return panel.
- 6) Rechargeable back-up battery and charging system.
- 7) Wiring and connections between all devices inside the car and the elevator controller.

2. Communication for Deaf, Hard of Hearing and Speech Impaired:

- a) Device inside car to allow text communication between passengers in the car and Authorized and Emergency Elevator Personnel. System includes:
 - 1) Video screen inside car to display text messages.
 - 2) Separate pushbuttons labeled "yes" and "no".
 - 3) Locate on the same car operating panel as the call button for the hands free communication device.
- b) Dedicated emergency communications video camera inside the elevator.
 - 1) Mount to capture view of all passengers in the cab.
- c) Device is located on the same car operating panel as the phone pushbutton.
- d) Provide shielded twisted pair wiring to communicate to machine room or equipment space network box.

3. Remote Video Monitoring System:

- a) Dedicated video camera inside elevator car to allow Authorized Personnel to remotely observe passengers at any location on the car floor.
- b) Includes all wiring, conduit, fiber optic strands, encoders, routers, internet connections, cloud-based services required to allow Authorized Personnel to access video signal.

4.10. CAR ENCLOSURE AND INTERIOR FINISHES

- A. Unless specifically identified as "Retain," "Reuse," or "Refurbish," provide new equipment. Contractor may, with Consultant approval, provide new equipment in lieu of refurbishing existing. See Section 00 80 00, Supplemental Conditions.
- B. Car Enclosure (Cab Shell):
 1. Retain.
- C. Passenger Car Fronts:
 1. Car Front :
 - a) New:
 - 1) 14-gauge reinforced stainless steel construction satin stainless steel finish.
 - 2) Stationary Type:
 - I. Include cutouts for car operating panels and other equipment.

2. Front Transoms:
 - a) New:
 - 1) 14-guage reinforced stainless steel construction satin stainless steel finish.
 - D. Passenger Car Interior on Wall Finishes:
 1. Include labor and material for new cab interior finishes.
 - a) Upper wall panels to be #4 satin stainless framed Wilson Art #8209-12 veranda teak.
 - b) Lower wall panels to be rigidized 1 SLG textured stainless.
 - c) #4 stain finish stainless reveals.
 - E. Cab Wall Base:
 1. #4 satin finish stainless steel.
 - F. Handrails:
 1. #4 satin finish stainless steel handrail.
 - G. Lighting:
 1. Square recessed LED, 2700K.
 - H. Suspended Ceiling
 1. Satin finish aluminum frame with #4 stainless steel lay-in panels.
 - I. Ventilation:
 1. New:
 - a) Two-speed type OE exhaust blower.
 - b) Mount to car canopy on isolated rubber grommets.
 - c) Meet noise requirements specified herein.
 - J. Car Finish Floor Covering:
 1. Class III high performance luxury vinyl tile 4.5mm. Color interface textured stones dark concrete.
 - K. Pads and buttons: new.
 1. Two pads covering side walls and adjacent front returns and one covering rear wall.
 2. Provide cutouts to access main car operating panel.
- 4.11. HALL CONTROLS
- A. Hall Pushbutton Station Fixtures:
 1. Flush mounted pushbutton station fixtures with enlarged faceplate to cover existing wall block out.
 2. Provide any cutting and patching required.
 3. Pushbuttons for each direction of travel which illuminate to indicate call registration. Provide LED illumination.

4. Approved engraved message and pictorial representation prohibiting use of elevator during fire or other emergency as part of faceplate.
 5. Pushbutton design to match car operating panel pushbuttons.
 6. One (1) stations per group of elevators at all floors.
 7. Provide on/off lock out keyswitch at both floors.
- B. Communication Operability Signals:
1. Audible and illuminated visual signals indicating telephone line or other means of communication are not operable.
 2. At designated landing for each group of elevators or single elevator.
 3. Included in hall pushbutton fixture.
 4. Included in Phase I Fire Service key switch fixture.
- C. Phase I Fire Service Key Switch and Signage:
1. At designated landing for each group of elevators or single elevator.
 2. Included in hall pushbutton fixture.
- 4.12. CAR ARRIVAL AND TRAVEL DIRECTION SIGNALS
- A. Car Direction Lantern:
1. New:
 - a) Provide flush-mounted car lantern in all car entrance columns.
 - b) Illuminate up or down LED lights and sound tone once for up and twice for down direction.
 - c) Provide advanced hall lantern notification to comply with ADA hall call notification time.
 - d) Illuminate light until the car doors start to close.
 - e) Sound level shall be adjustable from 20-80 dBA measured at 5'-0" in front of hall control station and 3'-0" off floor.
 - f) Car direction lenses shall be arrow shaped with faceplates.
 - g) Lenses shall be minimum 2½" in their smallest dimension.
 - h) Provide vandal resistant lantern and light assemblies consisting of series of dots or lines for maximum visibility.
- B. Car Position Indicator:
1. New:
 - a) Alpha-numeric digital indicator type.
 - b) Floor designations and direction arrows a minimum of 2" high to indicate floor served and direction of car travel.
 - c) Vandal resistant fixture and faceplate.
 - d) Locate on car operating panel.

- e) When a car leaves or passes a floor, illuminate indication representing position of car in hoistway.
 - f) Illuminate proper direction arrow to indicate direction of travel.
 - C. Voice Synthesizer:
 - 1. Provide electronic device with easily reprogrammable message and voice to announce car direction, floor, emergency exiting instructions, etc.
- 4.13. SIGNAL FIXTURE FACEPLATE FINISHES
- A. All Fixtures:
 - 1. stainless steel satin finish.

PART 5 - EXECUTION

- 5.1. SITE CONDITION INSPECTION
- A. Prior to beginning installation of equipment, examine hoistway and machine room areas. Verify no irregularities exist which affect execution of the specified work.
 - B. Inform Architect of any irregularities in writing prior to commencing work.
 - C. Do not proceed with installation until work in place conforms to project requirements.
- 5.2. INSTALLATION
- A. Install all new equipment as follows:
 - 1. in accordance with Contractor's instructions, referenced codes, specifications, and approved submittals.
 - 2. with clearances in accordance with referenced codes, and specifications.
 - 3. to be easily maintained and/or removed.
 - 4. to afford maximum accessibility, safety, and continuity of operation.
 - B. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
 - 1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
 - 2. Machine room equipment, and pit equipment.
 - 3. Neatly touch up damaged factory-painted surfaces with original paint color.
 - 4. Protect machine-finish surfaces against corrosion.
 - C. Paint machine room and pit floors.
- 5.3. FIELD QUALITY CONTROL
- A. Work at jobsite will be checked during course of installation. Full cooperation with reviewing personnel is mandatory. Accomplish corrective work required prior to performing further installation.
 - B. Perform complete "Acceptance" level pre-testing as specified in the latest edition of ASME A17.2 "Guide for Inspection of Elevators, Escalators, and Moving Walks" prior to AHJ

witnessed acceptance testing. Complete any adjustments, repairs, or replacements necessary to achieve code compliant operation including but not limited to:

1. Car emergency communications. Inform Owner and Consultant of any noted failures of Owner provided and maintained equipment or systems.
 2. Phase I and II Firefighters' Emergency Operation. Phase I initiated by smoke sensing devices.
 3. Power car door operation including door closing force, reopening device, and restricted opening.
- C. Have Code Authority acceptance inspection performed and complete corrective work.
- D. Provide access to installed equipment and elevator personnel assistance for Consultant's final observation and review requirements.

5.4. ADJUSTMENTS

- A. Static balance car to equalize pressure of guide shoes on guide rails.
- B. Verify that weights of existing or altered cars, counterweights, and compensation comply with traction machine manufacturers' requirements and do not exceed total weights indicated on approved submittals. See Section 01 30 00, Submittals.
- C. Lubricate all equipment in accordance with Contractor's instructions.
- D. Adjust motors, power conversion units, brakes, controllers, leveling switches, limit switches, stopping switches, door operators, interlocks, and safety devices to achieve required performance levels.

5.5. CLEANUP

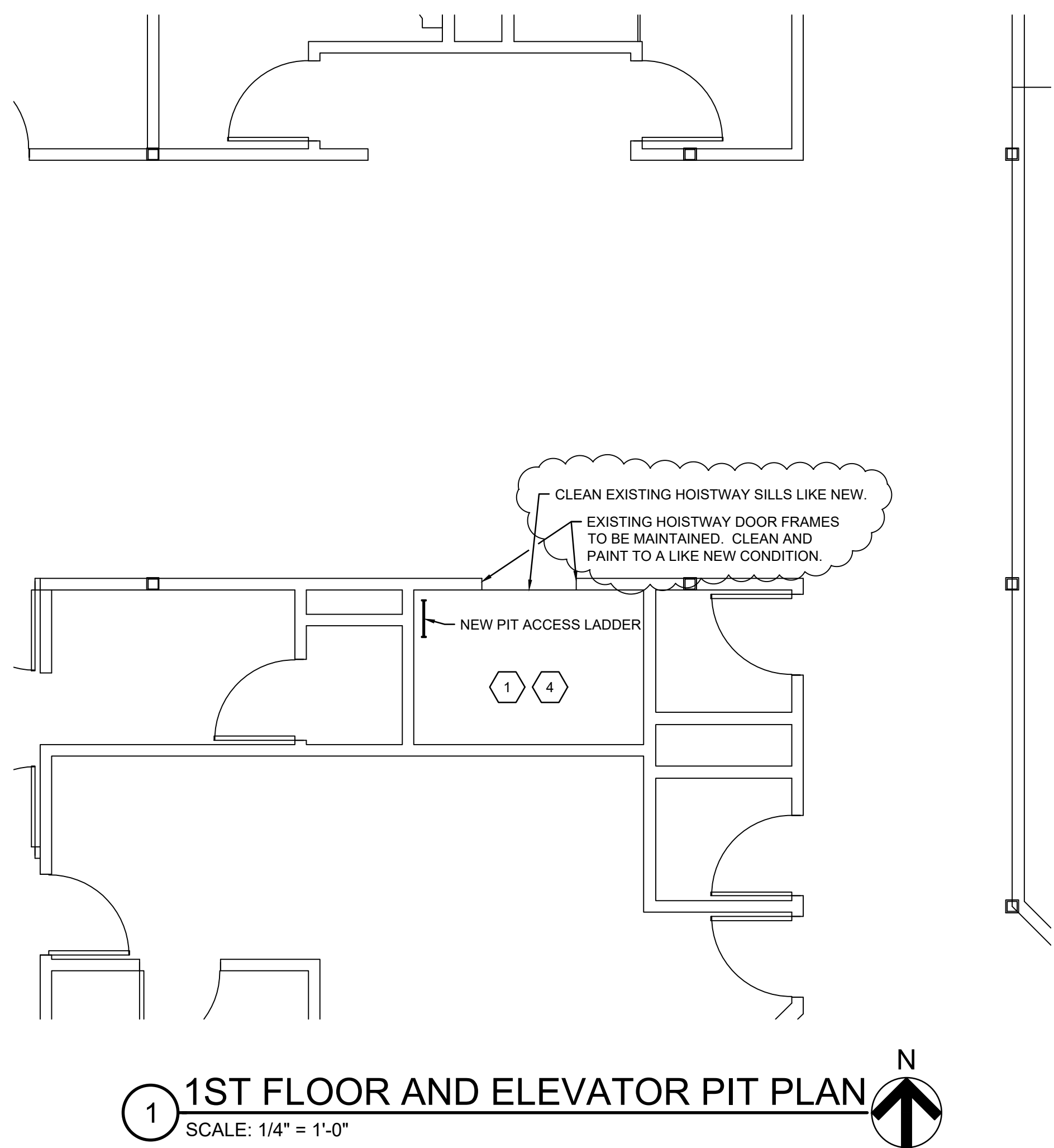
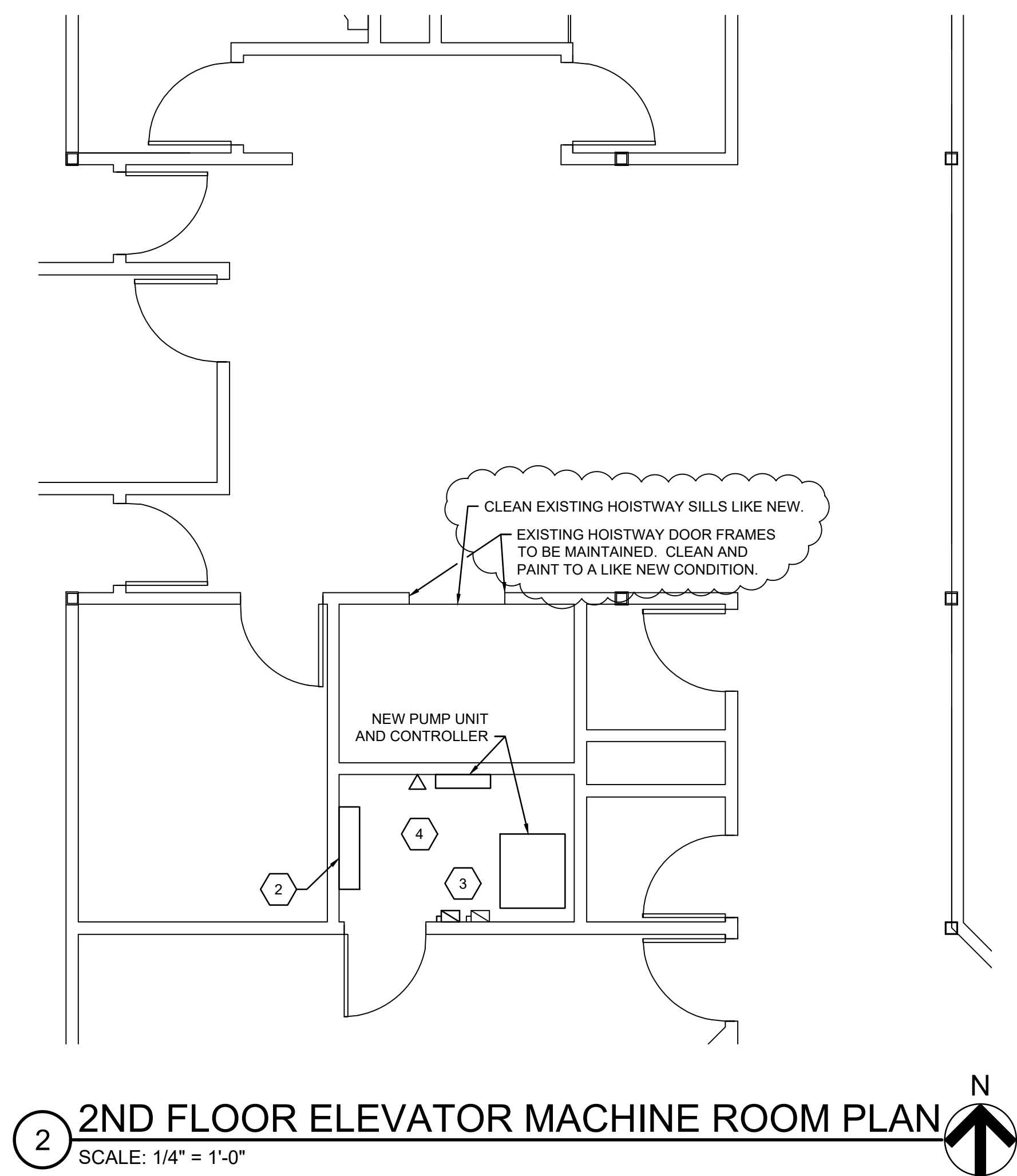
- A. Keep work areas orderly and free from debris during progress of project. Remove packaging materials daily.
- B. Elevator hoistways and all equipment therein shall be cleaned and left free of rust, filings, welding slag, rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt, and dust, including walls, building beams, sill ledges, and hoistway divider beams.
- C. Care shall be to not to mark, soil, or otherwise deface existing or new surfaces. Clean and restore such surfaces to their original condition.
- D. Clean down surfaces and areas which require final painting and finishing work. Cleaning includes removal of rubbish, broom cleaning of floors, removal of any loose plaster or mortar, dust, and other extraneous materials from finish surfaces, and surfaces which will remain visible after the work is complete.
- E. Paint machine room walls and floors.
- F. Remove all loose materials and filings resulting from work.
- G. Clean machine room equipment and floor.
- H. Clean car, car enclosure, entrances, operating and signal fixtures.

5.6. FINAL COMPLIANCE REVIEW

- A. Review procedure shall apply for individual elevators, portions of groups of elevators, and completed groups of elevators accepted on an interim basis, or elevators and groups of elevators completed, accepted, and placed in operation.

- B. Contractor shall perform review and evaluation of all aspects of its work prior to requesting Consultant's final review. Work shall be considered ready for Consultant's final contract compliance review when all Contractor's tests are complete, all deficiencies noted by the AHJ have been rectified, and all elements of work or a designated portion thereof are in place and, elevators or group of elevators are deemed ready for service as intended.
 - 1. Run-in time must include door open and close cycles, without interfering with usual business activity.
- C. Contractor shall perform review and evaluation of all aspects of its work prior to requesting consultant's review.
- D. Furnish labor, materials, and equipment necessary for Consultant's review. Notify Consultant five working days in advance when ready for final review of elevator or group of elevators.
- E. Consultant's written list of observed deficiencies of materials, equipment, and operating systems will be submitted to Contractor for corrective action. Consultant's review shall include as a minimum:
 - 1. Workmanship and equipment compliance with Contract Documents.
 - 2. Contract speed, capacity, floor-to-floor times, and door performance compliance with Contract Documents.
 - 3. Performance of following is satisfactory:
 - a) Starting, accelerating, running.
 - b) Decelerating, stopping accuracy.
 - c) Door operation and closing force.
 - d) Equipment noise levels.
 - e) Signal fixture utility.
 - f) Overall ride quality.
 - g) Performance of door control devices.
 - h) Operations of emergency two-way communication device.
 - i) Operations of firefighters' service.
 - j) Operations of special security features and floor lock-off provisions.
 - k) Operations of remote monitoring devices.
 - l) Operations of emergency brake device.
- F. Test Results:
 - 1. In all test conditions, obtain specified contract speed, performance times, stopping accuracy without re-leveling, and ride quality to satisfaction of Owner and Consultant. Tests will be conducted under both no load and full load condition.

END OF SECTION 14 24 01



ELEVATOR SCOPE OF WORK

THE GENERAL SCOPE OF WORK INVOLVES REPLACEMENT OF POWER UNIT AND CONTROLS OF AN EXISTING HYDRAULIC ELEVATOR (STATE ID: 29466). ORIGINAL INSTALL 1987; OTIS. 2-STOP, CAPACITY/SPEED TO BE MAINTAINED (2500LBS/100FPM). REFER TO BOOK SPECIFICATION SECTION 142401 FOR COMPLETE ELEVATOR SCOPE OF WORK. WORK INCLUDES, BUT NOT LIMITED TO:

- NEW CONTROLLER.
- NEW POWER UNIT.
- REPLACE DOORS AND OPERATORS.
- REWIRE CAB LIGHTS AND OTHER POWER TO ELEVATOR INCLUDING TRAVELING POWER FEED. THIS INCLUDES ALL WIRING BETWEEN CONTROLLER, ELEVATOR EQUIPMENT, AND STATIONS.
- TRAVELING DATA/PHONE LINE.
- CAR CONTROL PANEL, LIGHTS, AND EMERGENCY COMMUNICATION.
- HALL CONTROL STATIONS.
- COORDINATE TIE-IN OF ELEVATOR LOBBY/EQUIPMENT ROOM SMOKE DETECTORS AND TOP OF SHAFT HEAT DETECTOR FOR RECALL AND SHUTDOWN.

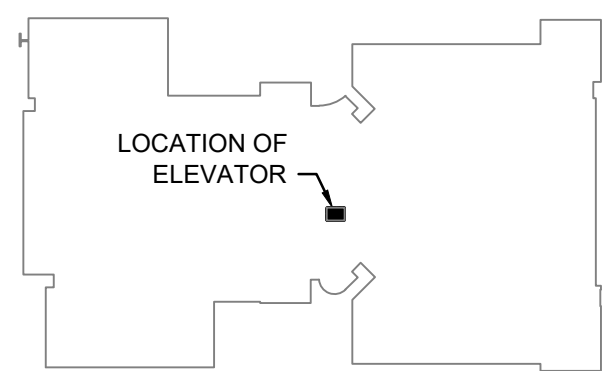
ELEVATOR CAR INTERIOR FINISHES

REFER TO BOOK SPECIFICATION SECTION 142401 FOR COMPLETE ELEVATOR SCOPE OF WORK. WORK INCLUDES, BUT NOT LIMITED TO:

- #4 SATIN FINISH STAINLESS STEEL RETURN AND DOOR SURROUND.
- UPPER WALL PANELS TO BE STAINLESS FRAMED WILSON ART #6209-12 VERANDA TEAK.
- LOWER WALL PANELS TO BE RIGIDIZED 1 SLG TEXTURED STAINLESS.
- HANDRAILS, BLANKET HOOKS, AND BLANKETS (ALL WALLS).
- #4 SATIN FINISH STAINLESS STEEL BASE AND REVEALS.
- SATIN FINISH ALUMINUM CEILING FRAME WITH #4 SATIN FINISH STAINLESS STEEL LAY IN PANELS AND SQUARE RECESS LED LIGHTING, 2700K.
- CLASS III HIGH PERFORMANCE LUXURY VINYL TILE 4.5 MM. COLOR INTERFACE TEXTURED STONES DARK CONCRETE.

CODED NOTES

1. CLEAN AND EPOXY PAINT PIT FLOOR AND WALLS UP TO THE LOWEST LANDING HOISTWAY SILL.
2. A NEW DUCTLESS SPLIT TO PROVIDE DEDICATED COOLING TO ELEVATOR MACHINE ROOM. REFER TO MECHANICAL SHEET M101.
3. PROVIDE ALL WIRING BETWEEN POWER FEED DISCONNECTS THRU CONTROLLER AND TO ALL ELEVATOR EQUIPMENT. THIS INCLUDES DATA LINE AND INTERFACING WITH EXISTING FIRE ALARM FOR ELEVATOR RECALL AND SHUTDOWN. REFER TO ELECTRICAL SHEET E101.
4. PIT AND ELEVATOR MACHINE ROOM TO HAVE ALL NEW LIGHTING. REFER TO ELECTRICAL SHEET E101.



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DUBLIN CITY SCHOOLS
2026 ELEVATOR REPLACEMENT PROJECT
SCOTTISH CORNERS ELEMENTARY SCHOOL
5950 SELLS MILL DR
DUBLIN, OHIO 43017

1	02-26-2026	ADDENDUM 2
NO.	DATE	DESCRIPTION
SUBMITTED:	02-12-2026	
DRAWN BY:	DCS	
KRAMER JOB #	2025-156	

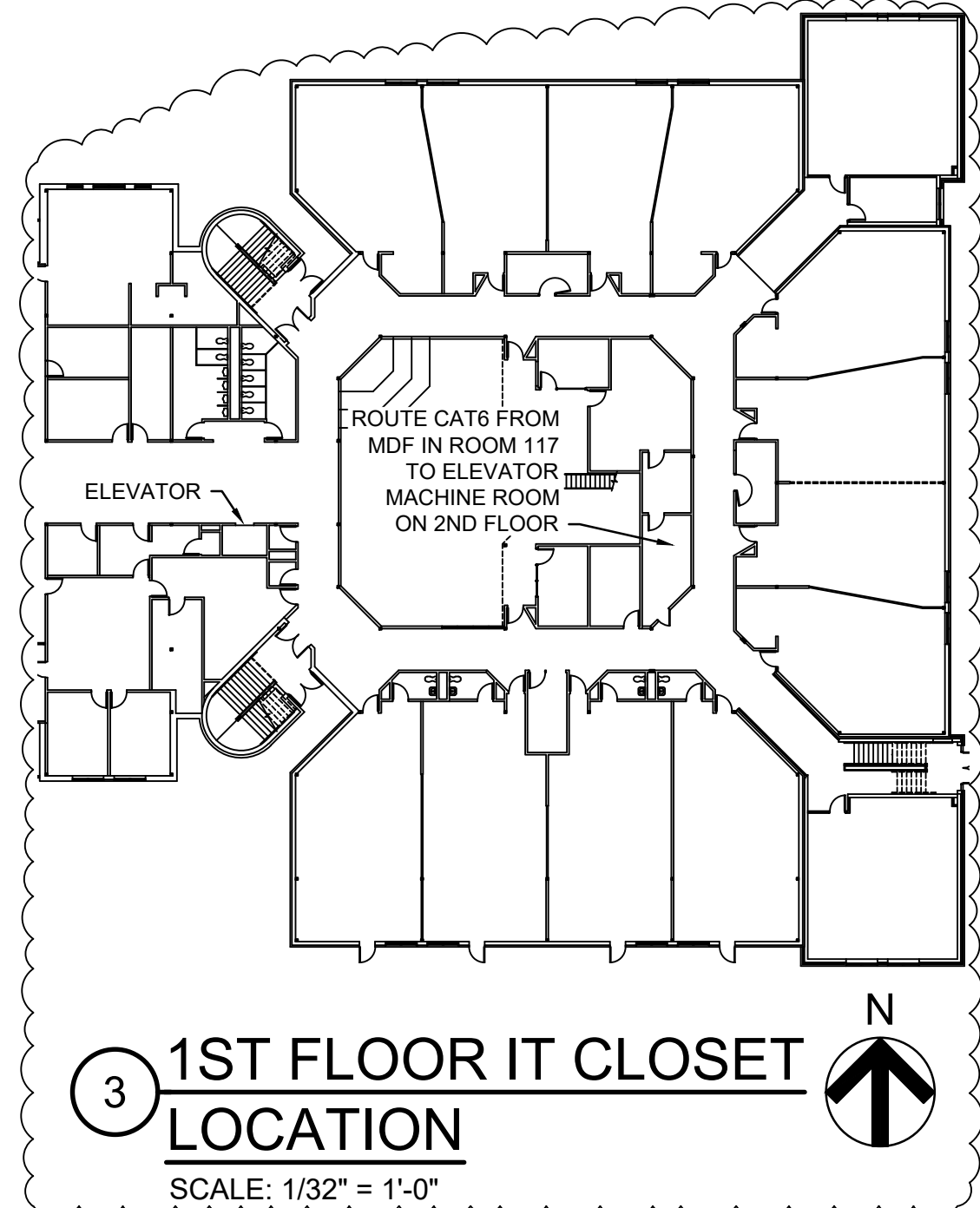
ELEVATOR PLAN

G101

2

2ND FLOOR ELEVATOR MACHINE ROOM

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



LIGHT FIXTURE SCHEDULE

FIXTURE NUMBER	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMP		VOLTS	REMARKS
				QTY.	TYPE		
A	4" GASKETED LED	LITHONIA	FEM-L48-6000LM-IMAFI-MD -MVOLT-GZ10-35K-80CRI	-	38W LED	120/277	OR EQUAL: COOPER OR COLUMBIA.

BRANCH PANEL: P-5 (EXISTING)

LOCATION: NOTED ON PLANS
FED FROM: -
MOUNTING: RECESSED
ENCLOSURE: TYPE 1

VOLTS: 208Y/120V
PHASES: 3
WIRES: 4

AIC RATING: -
MAINS TYPE: -
MAINS RATING: 200A
MCB RATING: -

LEGEND: * = GFIC BREAKER
** = LOCK-ON BREAKER

NOTES: -

CKT	CIRCUIT DESCRIPTION	WIRE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE	CIRCUIT DESCRIPTION	CKT
1	LIGHTING	#12	20 A	1	900	900					1	20 A	#12	LIGHTING	2
3	LIGHTING	#12	20 A	1			900	900			1	20 A	#12	LIGHTING	4
5	LIGHTING	#12	20 A	1					900	900	1	20 A	#12	LIGHTING	6
7	LIGHTING	#12	20 A	1	900	900					1	20 A	#12	LIGHTING	8
9	LIGHTING	#12	20 A	1			900	900			1	20 A	#12	LIGHTING	10
11	LIGHTING	#12	20 A	1					900	900	1	20 A	#12	LIGHTING	12
13	IT A/C UNIT	#12	20 A	1	1000	900					1	20 A	#12	LIGHTING	14
15	IT A/C UNIT	#12	20 A	1			1000	180			1	20 A	#12	RECEPTACLE	16
17	SPARE	-	20 A	1					-	915	2	30 A	#10	ELEVATOR MECH DUCTLESS SPLIT	18
19	SPARE	-	20 A	1	-	915									20
21	RECEPTACLES	#12	20 A	1			360	360			1	20 A	#12	RECEPTACLES	22
23	RECEPTACLES	#12	20 A	1					360	360	1	20 A	#12	RECEPTACLES	24
25	RECEPTACLES	#12	20 A	1	360	360					1	20 A	#12	RECEPTACLES	26
27	RECEPTACLES	#12	20 A	1			360	360			1	20 A	#12	RECEPTACLES	28
29	RECEPTACLES	#12	20 A	1					360	360	1	20 A	#12	RECEPTACLES	30
31	RECEPTACLES	#12	20 A	1	360	360					1	20 A	#12	RECEPTACLES	32
33	RECEPTACLES	#12	20 A	1			360	360			1	20 A	#12	RECEPTACLES	34
35	EXHAUST FANS	#12	20 A	1					200	360	1	20 A	#12	RECEPTACLES	36
37	EXHAUST FANS	#12	20 A	1	200	360					1	20 A	#12	RECEPTACLES	38
39	EXHAUST FANS	#12	20 A	1			200	360			1	20 A	#12	RECEPTACLES	40
41	EXHAUST FANS	#12	20 A	1					200	-	1	20 A	-	SPARE	42
TOTAL LOAD:					8415 VA		7500 VA		6715 VA						
TOTAL AMPS:					70 A		63 A		56 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
LIGHTING	- VA	100%	- VA	TOTAL CONN. LOAD: 22630 VA TOTAL EST. DEMAND: - VA TOTAL CONN.: 63 A TOTAL EST. DEMAND: - A
RECEPTACLE	- VA	100%	- VA	
HVAC	- VA	100%	- VA	

NOTES: CONFIRM EXISTING LOADS AND SPARE BREAKERS PRIOR TO PANEL REWORK.

