

ADDENDUM #3

March 8, 2013

Re: Harrisburg Area Community College

Central Administration Building

Phase 3 – Interior Fitout Solicitation # RFB13-15

From: Eastern PCM, LLC

Construction Manager – HACC 645 N. 12th Street, Suite 200

Lemoyne, PA 17043

To: All Planholders

This Addendum is hereby made part of the Plans dated February 8, 2013 and Project Manual dated February 13, 2013 for the above referenced project. The provisions of this Addendum are intended to supplement the provisions of the Plans and Project Manual and/or supersede them where contradictory thereto.

This Addendum contains changes to the requirements of the Plans and Project Manual. Such changes shall be incorporated into the Plans and Project Manual and shall apply to work with the same meaning and force as if they had been included in the original Plans and Project Manual. Where this Addendum modifies a portion of a paragraph or phrase of the Project Manual, the remaining unmodified portion of the paragraph or phrase shall remain in force.

The conditions and terms of the Plans and Project Manual shall govern work described in this Addendum. Whenever the conditions of work, or the quality or quantity of materials or workmanship are not fully described in this Addendum, the conditions of work etc. included in the Plans and Project Manual for similar items of work shall apply to the work described in this Addendum. If no similar items of work are included in the Plans and Project Manual, the quality of material and workmanship shall be subject to the written acceptance of the Architect.

2.1 BID DATE RESCHEDULED

Section 00100 - Invitation to Bid - CHANGE FOURTH PARAGRAPH TO READ:

HACC will receive sealed bids for the work at Three Penn Center, 349 Wiconisco Street, Harrisburg, PA 17110 in Room 224 until **2:00pm on March 14, 2013**. Bids received after this time will not be accepted. ONLY BONAFIDE BIDS WILL BE ACCEPTED. Bids will be opened and read aloud immediately following the bid receipt time.

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2.2 CHANGES TO THE SPECIFICATIONS

- A. 02871 Bicycle Racks: ADD item 2.02.A.3:
 - "3. Quantity
 - a. Three units"
- B. 06610 Plastic Fabrications: ADD this section in its entirety.
- C. 09900 Paints and Coatings:
 - a. ADD items 8 and 9 to paragraph 1.02.D:
 - "8. Precast concrete
 - 9. Existing or new face brick"
 - b. DELETE item 1.07.D.1 in its entirety. Renumber 1.07.D, 1 & 2 accordingly.
- D. 15855 Air Inlets and Outlets: ADD this section in its entirety.
- E. 16020 Electrical System Tests: REPLACE this section in its entirety.
- F. 16141 Wiring Devices and Wall Plates: REVISE paragraph 1.2.C to read:
 - "D. Labeling: in addition to Electrical Sections identification requirements the Contractor label all circuit numbers on the back of each and every wall switch with indelible ink or Brady permanent machine generated indelible label; the Contractor shall label on the front of each and every power receptacle outlet the circuit number with a Brady permanent indelible label, machine generated."
- G. 16571 Lighting Controls: ADD paragraph 2.11.M:
 - "M. LCP BACNET IP GATEWAY
 - Provide a BAC net IP gateway for the LCP(s) to talk to the BMS system.
 - 2. Provide conduit and cabling to the BMS system as required (the LCP and BMS are both located in the mechanical penthouse).
 - 3. Provide all additional gateways, power supplies, and accessories as required for the LCP to talk to the BMS system.
 - 4. Provide software/protocol licenses and software seats as required for 1 user."
- H. 16782 Electronic Surveillance CCTV:
 - a. REVISE item 2.3.A to read: "Contractor shall provide power supplies, as required to support all interior and exterior building-mounted CCTV devices. See drawings for additional information."
 - b. ADD item 2.3.D:
 - "D. Provide Altronix 8-port units to match current Altronix 28VAC power supplies (in IDF-1), 120VAC; quantity as required."

1.2 CHANGES TO THE DRAWINGS

- A. Drawing X2.4: REVISE this sheet per SKA-10.
- B. Drawing X2.6: REVISE this sheet per SKA-11.
- C. Drawing A2.4: REVISE this sheet per SKA-12.
- D. Drawing A2.6: REVISE this sheet per SKA-13.
- E. Drawing A6.3: REPLACE this sheet in its entirety.
- F. Drawing A7.12: REVISE this sheet per SKA-14.
- G. Drawing S0.1:
 - a. REVISE Structural General Note 4.F to read:

"ALL CONCRETE SHALL BE SAMPLED AND TESTED BY AN AGENCY RETAINED BY THE OWNER. THE OWNER SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE POURING OF ANY CONCRETE."

b. REVISE Structural General Note 5.L to read:

"AN INDEPENDENT INSPECTION AGENCY SHALL BE EMPLOYED BY THE OWNER TO INSPECT THE STRUCTURAL STEEL IN THE FIELD AND VERITY THAT IT CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS."

- H. Drawing EL2.3 REPLACE this sheet in its entirety.
- I. Drawing EL2.4 REPLACE this sheet in its entirety.
- J. Drawing EL2.5 REPLACE this sheet in its entirety.
- K. Drawing EL2.6 REPLACE this sheet in its entirety.
- L. Drawing E5.1 REPLACE this sheet in its entirety.
- M. Drawing E7.2 REPLACE this sheet in its entirety.
- N. Drawing E7.3 REVISE the location of panel RP1C to read "Receiving 147."
- O. Drawing H7.3 REPLACE this sheet in its entirety.
- P. Drawing T1.1 REPLACE this sheet in its entirety.
- Q. Drawing T6.0 REPLACE this sheet in its entirety.

1.3 CHANGES TO THE DETAIL REFERENCE MANUAL

- A. Index-1 REPLACE this page in its entirety.
- B. N-3 REPLACE this page in its entirety.
- C. L-1 REPLACE this page in its entirety.
- D. CE-5 REPLACE this page in its entirety.
- E. CE-6 REPLACE this page in its entirety.
- F. CE-7 REPLACE this page in its entirety.
- G. CE-45 REPLACE this page in its entirety.
- H. CE-46 REPLACE this page in its entirety.
- I. CE-47 REPLACE this page in its entirety.
- J. CDT-11 REPLACE this page in its entirety.
- K. DS-1 REPLACE this page in its entirety.
- L. DE-2 REPLACE this page in its entirety.
- M. DD-44 ADD this page in its entirety.
- N. MWD-9 REPLACE this page in its entirety.
- O. MWD-30 REPLACE this page in its entirety.
- P. MWD-33 REPLACE this page in its entirety.
- Q. MWD-52 REPLACE this page in its entirety.
- R. MWD-53 REPLACE this page in its entirety.
- S. MWD-56 ADD this page in its entirety.
- T. MDT-10 ADD this page in its entirety.
- U. MDT-11 ADD this page in its entirety.
- V. MDT-12 ADD this page in its entirety.

1.4 CLARIFICATIONS

A. Each Contractor is responsible for cutting and patching of their own work.

- B. New roof walking pads, crickets, flashing, etc. will be installed by phase 2 roof replacement contractor.
- C. The chemical treatment equipment shall be located adjacent to the closed circuit fluid cooler located in the mechanical penthouse.
- D. Hot gas reheat is not required on the heat pumps.
- E. The Electrical Contractor is responsible to provide automatic load transfer relays and wiring as required per each unique application, and include in the bid.
- F. General configurations of occupant sensors are shown on the plans. It is up to the Electrical Contractor to provide model types and layouts to meet the performance requirements listed in the specifications. It is also the Contractors responsibility to provide plan drawings with occupant sensor coverage as a shop drawing. Refer to Specification Section 16571.
- G. The Electrical Contractor shall provide the all power supplies and baluns for CCTV as specified in Section 16782.
- H. Panel HM1A is an existing panel to be retained with new breakers.
- I. Reference Plan E6.1: The intent is to series connect a shunt trip breaker into the existing elevator circuits.
- J. All breakers shown in panel schedules shall be new. Existing panels shall be retained where indicated.
- K. The furniture is existing and includes a whip for connection to floor boxes.
- L. Dimming is not required in Mens 110, Womens 111, Mens 203, or Womens 204. Provide single pole switches, occupant sensors, and automatic load control relays per the contract documents.
- M. Reference Plan H0.5: The loop water temperature shall be a range from 35 deg F to 90 deg F.
- N. Reference Plan H3.3: The connection point 12' above ground is for connection to a tanker truck if the need to drain the system is required. This will allow the ability to recover the propylene glycol mixture and reuse it.
- O. Removal of penthouse equipment: There is an existing knock out panel located on the north wall of the penthouse mechanical room. The contractor can either use this knock out panel or remove the fluid cooler's outside air louver for removal/installation of the mechanical equipment. Either option will require the contractor to reinstall knockout panel to existing conditions.
- P. Loop water equipment, i.e. pumps, air separator, expansion tank, etc. do not require insulation. Refer to specification 15182-5 Section 2.4.B.1 for insulation requirements for underground loop water piping.

1.5 ATTACHMENTS

- A. Specification Section 06610 Plastic Fabrications
- B. Specification Section 15855 Air Inlets and Outlets
- C. Specification Section 16020 Electrical System Tests (revised 3/7/13)
- D. SKA-10 Partial Large Scale First Floor Demolition Plan Section A
- E. SKA-11 Partial Large Scale Second Floor Demolition Plan Section A
- F. SKA-12 Partial Large Scale First Floor New Plan Section A
- G. SKA-13 Partial Large Scale Second Floor New Plan Section A
- H. A6.3 Large Scale First Floor Plans & Interior Elevations (revised 3/7/13)
- I. SKA-14 Partial Large Scale Second Floor Pattern Plan Section A
- J. EL2.3 First Floor Plan Section B Lighting (revised 3/7/13)
- K. EL2.4 First Floor Plan Section B Lighting (revised 3/7/13)
- L. EL2.5 Second Floor Plan Section A Lighting (revised 3/7/13)
- M. EL2.6 Second Floor Plan Section B Lighting (revised 3/7/13)
- N. E5.1 Board Room 103 Enlarged Plan Lighting Control (revised 3/7/13)
- O. E7.2 Panel Schedules (revised 3/7/13)
- P. H7.3 HVAC Schedules (revised 3/7/13)
- Q. T1.1 First Floor Plan Overall Telecom (revised 3/7/13)
- R. T6.0 Schematic Risers Telecom (revised 3/7/13)
- S. INDEX-1 Detail Reference Manual Index (revised 3/7/13)
- T. N-3 Demolition Keynotes (revised 3/7/13)
- U. L-1 Legend (revised 3/7/13)
- V. CE-5 Column Enclosure Details (revised 3/7/13)
- W. CE-6 Column Enclosure Details (revised 3/7/13)
- X. CE-7 Column Enclosure Details (revised 3/7/13)
- Y. CE-45 Column Enclosure Details (revised 3/7/13)
- Z. CE-46 Column Enclosure Details (revised 3/7/13)

AA.CE-47 – Column Enclosure Details (revised 3/7/13)

- BB. CDT-11 Ceiling Detail (revised 3/7/13)
- CC. DS-1 Door Schedule (revised 3/7/13)
- DD. DE-2 Door Elevations (revised 3/7/13)
- EE. DD-44 Door Detail
- FF. MWD-9 Millwork Details (revised 3/7/13)
- GG. MWD-30 Millwork Details (revised 3/7/13)
- HH. MWD-33 Millwork Details (revised 3/7/13)
- II. MWD-52 Millwork Details (revised 3/7/13)
- JJ. MWD-53 Millwork Details (revised 3/7/13)
- KK. MWD-56 Millwork Details
- LL. MDT-10 Floor Expansion Joint
- MM. MDT-10 Wall Expansion Joint
- NN. MDT-11 Bikerack Detail

END OF ADDENDUM

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Please sign and return this page, via fax, to Eastern PCM, LLC at (717) 233-1666 indicating receipt of this Addendum.

HACC Central Administration Building Phase 3 – Interior Fitout

has been received.

Addendum #

Company:	Print Company Name	
Received By:		
	Print Name	Signature
Date:		
Please check	one:	
W	e are bidding as a prime contractor e are not bidding e are a sub-contractor	

SECTION 06610 - PLASTIC FABRICATIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Plastic Fabrications.
- B. Sliding Doors
- C. Refer to scheduled list of items in KTF in DRM.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data; Include product description, fabrication information, and compliance with specified performance requirements.
- B. Shop Drawings: Indicate design load parameters, dimensions, adjacent construction, materials, thicknesses, fabrication details, required clearances, field jointing, tolerances, colors, finishes, methods of support, integration of plumbing components, and anchorages.
- C. Samples: Submit two samples, 6 x 6 inch in size, illustrating color, texture, and finish.
- D. Maintenance Data: Include instructions for stain removal, surface and gloss restoration.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in architectural glass fiber and resin components with 5 years documented experience.
- B. Materials and systems shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least five (5) consecutive years and which can show evidence of those materials being satisfactorily used on at least six (6) projects of similar size, scope and location. At least three (3) of the projects shall have been successful for use five (5) years or longer.
- C. Manufactured panels must be produced from a minimum of 40% post-industrial recycle content. This recycle content must be certified by a recognized 3rd party certification group, such as Scientific Certification Systems (SCS).

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect components from damage by retaining shipping protection in place until installation.
- B. Deliver plastic fabrications, systems and specified items in manufacturer's standard protective packaging.
- C. Do not deliver plastic fabrications, system, components and accessories to Project site until areas are ready for installation.
- D. Store materials in a flat orientation in a dry place that is not exposed to exterior elements.

- E. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent damage or staining following installation for duration of project.
- F. Before installing plastic fabrications, permit them to reach room temperature.

1.06 FIELD CONDITIONS

- A. Do not install site fabricated components when site conditions may be detrimental to successful installation.
- B. Maintain temperature and humidity conditions favorable to proper curing of resinduring and after installation.

1.07 MAINTENANCE DATA

A. Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions. Include in Project closeout documents.

1.08 WARRANTY

- A. Manufacturer's Special Warranty on Plastic Fabrications: Manufacturer's standard form agreeing to repair or replace units that fail in material or workmanship within the specified warranty period.
- B. Warranty Period: 1 year after the date of Substantial Completion.
- C. The warranty shall not deprive the Owner of other rights or remedies the Owner may have under other provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Glass Fiber and Resin Fabrications:
 - 1. 3form, Inc., Salt Lake City, Utah, USA /Telephone 801-649-2500 Basis of Design

2.02 MATERIALS

- A. Sheets
 - 1. Engineered polyester resin
 - 2. Sheet Size: Maximum 4' x 10'
 - 3. Gage: 3/8 inch.
 - a. Product: Linea Ivory
 - b. Finish: Front Finish L Patina
 - c. Orientation: Vertical
- B. Interlayer Materials: Compatible with polyesters and bonding process to create a monolithic sheet of material when complete.
- C. Sheet minimum performance attributes:
 - 1. Rate of Burning (ASTM D 635). Material must attain CC1 Rating for a nominal thickness of 1.5 mm (0.060 in.) and greater.
 - 2. Self-Ignition Temperature (ASTM D 1929). Material must have a self-ignition temperature greater than 650 °F.
 - 3. Density of Smoke (ASTM D 2843). Material must have a smoke density less than 75%
 - 4. Flame spread and Smoke developed testing (ASTM E 84). Material must be able to meet a level of Class A (Flame spread less than 25 and smoke less than 450) at thickness of 1".

- 5. Room Corner Burn Test (NFPA 286). Material must meet Class A criteria at 1/4" thickness as described by the 2003 International Building Code.
- 6. Extent of Burning (UL 94). Must submit UL card.
- 7. Impact strength: Minimum impact strength test as measured by ASTM D 3763 of 20 ft. lbs. (for durability, shipping, installation, and use).
- 8. Safety Glazing: Material must attain a Class A impact rating in accordance with ANSI Z97.1-2004 at 1/8" thickness.
- 9. UPITT Test for Combustion Product Toxicity: Product must be recorded as "not more toxic than wood".
- Dynamic environmental testing (ASTM standards D 5116 and D 6670). Panels must not have detectable VOC off-gassing agents and must be have Greenguard™ Indoor Air Quality certified.

2.03 SHOP FABRICATION

- A. General: Fabricate plastic fabrications to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes, profiles and other characteristics are indicated on the drawings, additional fabrication and installation details can be found on the 3form Partner Preliminary Project Review, if applicable.
- B. Comply with manufacturer's written recommendations for fabrication.
- C. Machining: Acceptable means of machining are listed below. Ensure that material is not chipped or warped by machining operations.
 - 1. Sawing: Select equipment and blades suitable for type of cut required.
 - 2. Drilling: Drills specifically designed for use with plastic products.
 - 3. Milling: Climb cut where possible.
 - 4. Routing
 - 5. Tapping
- D. Laminating: Laminate to substrates indicated using adhesives and techniques recommended by manufacturer.
- E. Door Assembly
 - Provide complete door assemblies as indicated in drawings.
 - 2. Extend tracks into recessed packets as required
 - 3. Provide stops and catches as required for telescoping double doors.

2.04 MISCELLANEOUS MATERIALS

- A. General: Provide products of material, size, and shape required for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaner: Type recommended by manufacturer.
- C. Fasteners: Use screws designed specifically for plastics. Self-threading screws are acceptable for permanent installations. Provide threaded metal inserts for applications requiring frequent disassembly such as light fixtures.
- D. Bonding Cements: May be achieved with solvents or adhesives, suitable for use with product and application.
- E. Sliding door hardware:
 - 1. Slide 04 system
 - a. Top Frame Profile: Model # 0-15-1783
 - b. Mullion: Model # 0-15-0037

- c. Bottom Frame: Model # 0-15-0034
- d. Top Roller Assembly: Model # 3-15-0009
- e. Bottom Roller: Model # 3-15-0010
- f. Recessed Track: Model # 3-15-0044
- g. Stop: Model # 3-15-0044
- h. Slide Telescoping Catch: Model # 3-15-4444 k
- i. Wall Mounted Bracket: Model # 3-15-0015
- j. Pocket Door Pull: Model # 3-15- 0069 k
- k. Latches: Model # 3-15-4447
- I. Lock: Model # 3-15-4450
 - 1) Provide 4 master keys to the College for keying
- m. Flush Bolt: Model 3-15-0005 k (recessed track)
- n. Connectors for Top Track: Model # 3-15-0018
- o. Top Track End Capbumper: Model # 3-15-0046
- p. Screw Cover: Model # 3-15-0011
- q. Dust Brush: Model # 3-15-0012
- r. Fastners:
 - 1) Screws
 - 2) Clips
 - 3) Brackets
- 2. Doors:
 - a. Sliding Doors (4 pairs total). Refer to drawings for locations and details.

2.05 DOOR FINISH

A. Color: Clear anodized aluminum.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work and dimensions are as indicated on shop drawings.
- B. Examine substrates, areas, and conditions where installation of plastic fabrications will occur, with Installer present, for compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.
- C. Verify that all required blocking has been installed prior installing the resin panels.

3.02 INSTALLATION

- A. General: Comply with manufacturer's written instructions for the installation of plastic fabrications.
- B. Manufacturer's shop to fabricate items to the greatest degree possible.
- C. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.
- D. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

3.03 TOLERANCES

A. Maximum variation from true position: 1/8 inch (3 mm).

B. Maximum offset from true alignment: 1/8 inch (3 mm).

3.04 CLEANING

A. Clean components of foreign material without damaging finished surface.

3.05 PROTECTION

A. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work, which cannot be repaired to Architect's satisfaction.

3.06 SCHEDULES

A. Refer to DRM for Resin types.

END OF SECTION 06610

SECTION 15855 - AIR INLETS AND OUTLETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 WORK INCLUDED

- A. Ceiling Diffusers.
- B. Supply Registers.
- C. Return and Exhaust Grilles.
- D. Related Sections include the following:
 - 1. Division 15 Section "Duct Accessories" for volume-control dampers not integral to diffusers, registers, and grilles.
 - 2. Division 15 Section "Testing, Adjusting, and Balancing" for balancing diffusers, registers, and grilles.

1.3 DEFINITIONS

- A. Diffuser: Circular, square, or rectangular air distribution outlet, generally located in the ceiling and comprised of deflecting members discharging supply air in various directions and planes and arranged to promote mixing of primary air with secondary room air.
- B. Grille: A louvered covering for an opening in an air passage, which can be located in a sidewall, ceiling, or floor.
- C. Register: A combination grille and damper assembly over an air opening.

1.4 SUBMITTALS

- A. Product Data: For each model indicated, include the following:
 - 1. Data Sheet: For each type of air outlet and inlet, and accessory furnished; indicate construction, finish, and mounting details.
 - 2. Performance Data: Include throw and drop, static-pressure drop, and noise ratings for each type of air outlet and inlet.
 - 3. Schedule of diffusers, registers, and grilles indicating drawing designation, room location, quantity, model number, size, and accessories furnished.

- 4. Assembly Drawing: For each type of air outlet and inlet; indicate materials and methods of assembly of components.
- B. Coordination Drawings: Reflected ceiling plans and wall elevations drawn to scale to show locations and coordination of diffusers, registers, and grilles with other items installed in ceilings and walls. Refer to specification section 15815 Metal Ducts for complete coordination drawing requirements.

1.5 QUALITY ASSURANCE

- A. Product Options: Drawings and schedules indicate specific requirements of diffusers, registers, and grilles and are based on the specific requirements of the systems indicated. Other manufacturers' products with equal performance characteristics may be considered. Refer to Division 1 Section "Substitutions."
- B. NFPA Compliance: Install diffusers, registers, and grilles according to NFPA 90A, "Standard for the Installation of Air-Conditioning and Ventilating Systems."

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

- A. Diffusers, registers, and grilles are scheduled on Drawings.
- B. Products: Subject to compliance with requirements, provide one of the following:
 - 1. Air Systems Components; Krueger Div.
 - 2. Anemostat Products; Dynamics Corp. of America.
 - 3. Hart & Cooley, Inc.
 - 4. Tuttle & Bailey Div.
 - 5. Price.
 - 6. Titus.
 - 7. Nailor, Inc.

2.2 SOURCE QUALITY CONTROL

- A. Testing: Test performance according to ASHRAE 70, "Method of Testing for Rating the Performance of Air Outlets and Inlets."
- B. All painted finishes must pass a 100 hour ASTM B117 Corrosive Environments Salt Spray Test without creepage, blistering, or deterioration of film. The paint must pass a 250 hour ASTM D870 Water Immersion Test. The paint must also pass the ASTM D2794 Reverse Impact Cracking Test with a 50 inch pound force applied.
- 2.3 SQUARE CEILING DIFFUSERS (TYPE A)

- A. Ceiling Diffusers: Ceiling diffusers shall be square type with a removable three cone face that discharges a horizontal blanket of air to the space. (4-way, 3-way, 2-way, 1-way blow as indicated on drawings and shall be selected to integrate with the ceiling system as shown on the plans and as scheduled). Diffusers shall have integral, drawn round necks for duct attachment. The removable cone must be easily detachable without tools, for cleaning and installation. Diffusers shall be similar to Titus TMS diffusers.
 - Material: Heavy gauge steel backpan; steel die stamped cones according to the model selected
 - 2. Finish: White, Anodic acrylic paint, baked on finish at 315 deg F for 30 minutes
 - 3. Duct Connection: Square or round as indicated by drawings. Provide square to round neck adapters where required by diffuser, duct and ceiling conditions.
 - 4. Duct Connection Size: As indicated on drawings.
 - 5. Face Size: As indicated on drawings.
 - 6. Face: 3/16-inch diameter holes on 1/4-inch staggered centers
 - 7. Maximum Noise-Criterion Rating: NC25.
 - 8. Face Style: Square.
 - 9. Mounting: Lay-in or surface mount; as required to match ceiling type
 - 10. Dampers: None, all balancing shall be accomplished through duct mounted volume dampers, installed in each branch duct, as indicated on the contract drawings.
 - 11. Accessories: Include lay-in extension panel of matching material and finish as necessary for installation in a 2' x 2' ceiling grid system.
 - a. Provide optional factory installed R-6 foil backed insulation available for 24 x 24 inch full face models

2.4 RETURN AND EXHAUST GRILLES (TYPES B)

- A. Return and Exhaust Grilles: Rectangular return and exhaust registers with fixed deflection blades. For surface mounting applications, the border shall be steel, and shall include countersunk screw holes for installation. Lay-in models shall include extension panels where required for the scheduled duct size and grid system module size. Dampers shall be adjustable through the face of the register. Grilles shall be similar to Titus 350FL.
 - 1. Material: Steel.
 - 2. Finish: White, Anodic acrylic paint, baked on finish at 315 deg F for 30 minutes
 - 3. Face Blade Arrangement: 3/4" spacing, fixed 22.5 deg deflection.
 - 4. Face Size: As indicated on drawings.
 - 5. Duct Connection Size: As indicated on drawings.
 - 6. Maximum Noise-Criterion Rating: NC25.
 - 7. Mounting: Lay-in or surface mount; as required to match ceiling type
 - 8. Border: 1-1/4" on all sides, constructed of steel and shall have countersunk screw holes for a neat appearance.
 - 9. Damper Type: Heavy gauge steel adjustable opposed-blade assembly. Return/Exhaust grille shall be provided with an integral damper in addition to the duct mounted damper indicated by the contract drawings.
 - 10. Accessories: Include lay-in extension panel of matching material and finish as necessary for installation in a 2' x 2' ceiling grid system.

2.5 SIDEWALL DIFFUSER (TYPE C)

- A. General: Individually adjustable airfoil blade, double deflection supply grille.
- B. Material: Steel.
- C. Finish: Baked enamel, white.
- D. Maximum Noise-Criterion Rating: NC27
- E. Face Blade: 3/4" Blade Spacing
- F. Border: 1-1/4" border for surface mounting directly to ductwork
- G. Damper Type: Unit mounted opposed blade damper.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas where diffusers, registers, grilles, and filter modules are to be installed for compliance with requirements for installation tolerances and other conditions affecting performance of equipment. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 COORDINATION

- A. Coordinate all devices with ceiling grid, construction and type, and work of other trades.
- B. See also "ACCESS PANELS".

3.3 INSTALLATION

- A. Install diffusers, registers, and grilles level and plumb, according to manufacturer's written instructions, Coordination Drawings, original design, and referenced standards.
- B. Ceiling-Mounted Outlets and Inlets: Drawings indicate general arrangement of ducts, fittings, and accessories. Air outlet and inlet locations have been indicated to achieve design requirements for air volume, noise criteria, airflow pattern, throw, and pressure drop. Make final locations where indicated, as much as practicable. For units installed in lay-in ceiling panels, locate units in the center of the panel. Where architectural features or other items conflict with installation, notify Architect for a determination of final location.
- C. Install diffusers, registers, grilles, and filter modules with airtight connection to ducts and to allow service and maintenance of dampers, air extractors, and fire dampers.

3.4 ADJUSTING

A. After installation, adjust diffusers, registers, grilles, and filter modules to air patterns indicated, or as directed, before starting air balancing.

3.5 CLEANING

A. After installation of diffusers, registers, grilles, and filter modules, inspect exposed finish. Clean exposed surfaces to remove burrs, dirt, and smudges. Replace diffusers, registers, grilles, and filter modules that have damaged finishes.

END OF SECTION 15855

SECTION 16020 - ELECTRICAL SYSTEM TESTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 WORK INCLUDED

- A. Field acceptance and operational testing of all new and existing electrical equipment and systems, as shown on the drawings and noted herein
 - 1. The current electrical equipment in the first floor electrical closet shall be cleaned and retested prior to re-use, including the panel boards and transformers left in that room; per Section 3.2 below. Assure all mechanical connections are torque tightened as required per NETA and manufacturers requirements.
 - 2. The current main switchboard in the penthouse (that feeds Mumma Hall electrical closets) shall be cleaned and tested per Section 3.2 and also shall be Infared thermography scanned to determine any high temperature hot-spots and this test shall be included in the test report. (include thermo graphic test results) Assure all mechanical connections are torque tightened as required per NETA and manufacturers requirements.

1.3 QUALITY ASSURANCE

- A. Test materials and methods shall conform to all applicable codes, the requirements of authorities having jurisdiction and the latest edition of reference standards published by the organizations listed in Section 16010 applicable to the work of this section.
- B. Test instrument calibration in accordance with NETA ATS.

1.4 SUMITTALS

- A. Submit in accordance with Section 16010.
- B. Proposed testing schedule.
- C. Certified test reports. Refer to specific test descriptions for additional information regarding data to be included in test reports.

1.5 GENERAL REQUIREMENTS FOR TESTING

- A. Retesting required as a result of malfunction or failure of equipment to meet specified performance criteria shall be performed at no additional cost to the Owner.
- B. Where possible, malfunctioning equipment shall be corrected at the site and retested; otherwise, equipment shall be replaced with new equipment and retesting shall proceed.
- C. Upon satisfactory completion of these tests, the Contractor shall furnish, for each item of equipment or system tested, a written statement certifying that there has been no invalidation of any warranties or impairment of the capacity or functionality of the equipment or system tested.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Provide all equipment required to conduct tests as specified herein, including any specialized test equipment recommended by a system manufacturer.
- B. The tests shall be conducted by:
 - 1. I.E.T., Inc., PO. Box 326, Dauphin Pennsylvania, (717) 921-8993
 - 2. MET Electrical Testing Company, Inc., 3700 Commerce Drive, Suite 901-903, Baltimore Maryland, 21227, (888) 638-8378
 - 3. Cable Testing Service, Inc., 27G Albe Drive, Newark, DE 19702, (302) 369-5420 or 1-800-624-1600.

PART 3 - EXECUTION

3.1 SCHEDULING

- A. Notify the Professional 2 weeks prior to testing. Scheduling of all tests shall be approved by the Professional.
- B. Schedule tests so as not to interfere with the overall progress of the job.
- C. Schedule tests so that equipment may be energized immediately after completion of testing and approval of reports.

3.2 PREPARATION

A. Examine the Contract Documents to ensure the completeness of all Work prior to testing.

- B. Megger and high potential testing shall not be performed during periods of high relative humidity. A guard shall be stationed at each location where exposed cables, buswork, connections or other components exist during megger and high potential testing.
- C. All equipment shall be thoroughly cleaned prior to testing. Vacuum the interiors of all cabinets and equipment cubicles and remove all foreign material. Wipe all insulators, bushings and bus supports clean with a lint free cloth.
- D. Preliminary tests and visual inspections of the electrical installation including verification checks of factory wiring shall be conducted prior to electrical acceptance and operational tests to avoid delays, and to assure that equipment and installations are free of faulty conditions prior to the application of test voltages.
- E. Where the equipment or system under test is interconnected with or dependent upon other equipment, systems and/or controls for proper operation, the latter shall be operated simultaneously with the equipment or system under test to verify proper functioning of all interfaces.
- F. Verify that all shipping materials and restraints have been removed from equipment.
- G. Check for proper tightness at all connections of shipping sections.

3.3 WIRING SYSTEM TESTS (600 VOLTS AND LESS)

- A. Wire and cable shall be tested for continuity, freedom from short circuits and grounds and meggered to assure adequate insulation resistance for each conductor.
- B. Megger instrument shall apply 1000 volts DC for 1 minute.
- C. Insulation resistance between any 2 phase conductors and any phase conductor to ground shall be not less than 2 meggohms for connected conductors and 100 megaohms for disconnected conductors.
- D. Submit schedule of test results for all feeders rated at 100 amps or greater. Schedule shall indicate feeder designation, load served, feeder size, feeder length and measured values for each conductor. Individual values shall be recorded for each conductor of multiple phase circuits.
- E. Visual and Maintenance Inspection:
 - 1. Inspect each individual exposed power cable number 6 AWG and large for:
 - a. Physical damage.
 - b. Proper connections in accordance with single line diagram.
 - c. Cable bends not in conformance with manufacturer's minimum allowable bending radius where applicable.
 - d. Color-coding conformance with specifications.
 - e. Proper circuit identification.
 - 2. Mechanical Connections for:
 - a. Proper lug type for conductor material.
 - b. Proper lug installation.

- c. Bolt torque level in accordance with NETA ATS, Table 10.1, unless otherwise specified by Manufacturer.
- 3. Shielded Instrumentation Cables for:
 - a. Proper shield grounding.
 - b. Proper terminations.
 - c. Proper circuit identification.
- Control Cables for:
 - a. Proper termination.
 - b. Proper circuit identification.

3.4 GROUNDING SYSTEM TESTS

- A. Tests on the grounding system shall be made after complete installation to the existing.
- B. Test the grounding system for continuity by applying a low voltage DC source of current, capable of providing up to 100 amperes. The ground path using structural steel must conduct 100 amperes. Resistance as calculated from the current and voltage shall not exceed 0.25 ohms.
- C. Test the completed equipment grounding system at each distribution panel, motor control center and branch circuit panelboard. Ground resistance shall not exceed 5 ohms at any piece of distribution equipment and 10 ohms at any item of utilization equipment. Ground resistance tests at distribution equipment shall be made in accordance with the procedures described in James G. Biddle Company Bulletins 25-T2 and 25-J and in accordance with IEEE 81, Section 8.2.1.1 and 8.2.1.5.
- D. Visual and Mechanical Inspection:
 - 1. Equipment and circuit grounds in panelboard assemblies for proper connection and tightness.
 - 2. Effective transformer care and equipment grounding.
 - 3. Accessible connections to grounding electrodes for proper fit and tightness.

3.5 DISTRIBUTION EQUIPMENT TESTS

- A. All distribution equipment shall be tested for continuity, freedom from short circuits and grounds and meggered to assure adequate resistances.
- B. Megger instrument shall apply 1000 volts DC for equipment rated 480 or 600 volts and 500 volts DC for equipment rated 250 volts; applied for 1 minute.
- C. Insulation resistance between any 2 phases and any phase to ground shall be not less than 100 megohms for equipment rated 480 or 600 volts and 25 megohms for equipment rated 250 volts.
- D. Measure load current on each phase of panelboards serving single phase loads. Rearrange branch circuits to balance phases to within +/-10 percent of the average load. Maintain proper phasing of trunked branch circuit homeruns.

- E. Perform an insulation resistance test at 1000 volts DC on each circuit breaker for 1 minute from pole-to-pole and from pole-to-ground with the breaker closed and across open contacts of each phase. Insulation resistance shall not be less than 100 megaohms.
- F. Set, calibrate and adjust protective device settings of each circuit breaker in accordance with the approved coordination study using secondary current injection.

3.6 ELECTRICAL ACCEPTANCE TESTS

- A. The Contractor shall engage the services of a recognized independent testing agency to perform certain electrical tests as herein specified. The testing agency shall be responsible to do the specified electrical tests in total compliance with the specification of the National Electrical Testing Association (NETA). The Electrical Contractor shall be responsible to do visual and mechanical inspections as well as megger tests as detailed herein and in total compliance with the specifications of NETA. The Electrical Contractor shall certify in writing that the visual and mechanical inspections were completed and the results of those inspections.
- B. The testing agency shall provide all material, equipment, labor and supervision required to conduct the electrical tests.
- C. It is the intent of these inspections and tests to determine the suitability for reliable operation of certain electrical facilities and upon completion, a label shall be attached to all items included in this scope of work. These labels shall indicate the date of tests and the agency responsible for conducting the tests.
- D. As copyrighted by NETA, the responsibility of the testing laboratory and the Contractor shall be as follows:
 - 1. The Contractor shall perform routine resistance, continuity and rotation tests for main distribution and utilization equipment prior and in addition to tests performed by the testing agency specified herein. The Contractor shall also perform the specified visual and mechanical inspections.
 - 2. The Contractor shall supply a suitable and stable source of test power to the test laboratory at each test site. The testing agency shall specify requirements.
 - 3. The Contractor shall notify the testing agency when equipment becomes available for acceptance tests. Work shall be coordinated to expedite project scheduling.
 - 4. The Contractor will supply a complete set of electrical plans, specifications and any pertinent change orders to the testing agency prior to commencement of testing.
 - 5. The testing agency shall notify the Professional prior to commencement of any testing.
 - 6. Any system, material or workmanship which is found defective on the basis of acceptance tests shall be reported directly to the Professional.
 - 7. The testing agency shall maintain a written record of all tests and upon completion of project, assemble and certify a final test report.

E. Test Instrument Traceability:

- 1. The testing agency shall have a calibration program which maintains all applicable test instrumentation within rated accuracy.
- 2. The accuracy shall be traceable to the National Bureau of Standards in an unbroken chain.
- 3. Instruments shall be calibrated in accordance with the following frequency schedule:
 - a. Field instruments 6 months maximum.
 - b. Laboratory instruments 12 months.
 - c. Leased specialty equipment 12 months (where accuracy is guaranteed by lessor, i.e. Doble).
- 4. Date calibration labels shall be visible on al test equipment.
- 5. Records must be kept up-to-date which show date and results of all instruments calibrated or tested.
- 6. An up-to-date instrument calibration instruction and procedure will be maintained for each test instrument.

F. Test Report:

- 1. The test report shall include the following:
 - a. Summary of project.
 - b. Description of equipment tested.
 - c. Description of test.
 - d. Test results.
 - e. Conclusions and recommendations.
 - f. Appendix, including appropriate test forms.
 - g. List of test equipment used and calibration date.
- 2. Furnish 3 copies of the completed report to the Professional no later than 30 days after completion of the tests.

G. Applicable Codes, Standards and References:

- 1. All inspection and tests shall be in accordance with the following applicable codes and standards except as provided otherwise herein.
 - a. National Electrical Code NEC.
 - b. National Electrical Manufacturer's Association NEMA.
 - c. American Society for Testing and Materials ASTM.
 - d. Institute of Electrical and Electronic Engineers IEEE.
 - e. National Electrical Testing Association NETA.
 - f. American National Standards Institute ANSI.
 - g. State and Local Codes and Ordinances.
 - h. Insulated Power Cable Engineers Association IPCEA.
 - i. Association of Edison Illuminating Companies AEIC.
 - j. OSHA Part 1910; Subpart S, 1910.308.
 - k. National Fire Protection Association NFPA.
- 2. All devices and materials to perform the tests must be obtained prior to commencing the work.
 - a. All instruments must be available and in proper operating condition.
 - b. All dispensable materials such as solvents, rags and brushes required must be provided.
 - c. All equipment handling devices such as vehicles, chain falls and other lifting equipment must be available or scheduled.

- d. All instruction books, calibration curves or other printed material to cover the electrical devices must be available.
- e. Data sheets to record all rest results must be available before the work is started.
- 3. All inspections and tests shall utilize the following references:
 - a. Project design specifications.
 - b. Project design drawings.
 - c. Manufacturer's instruction manuals applicable to each particular apparatus.

H. Safety and Precautions:

- 1. Safety practices shall include, but are not limited to, the following requirements:
 - a. Occupational Safety and Health Act of 1970 OSHA.
 - b. Accident Prevention Manual for Industrial Operations, Seventh Addition, National Safety Council, Chapter 4.
 - c. Applicable State and Local Safety Operating Procedures.
 - d. NETA Safety/Accident Prevention Program.
 - e. Owner's Safety Practices.
 - f. National Fire Protection Association NFPA 70E.
- 2. All tests shall be performed with apparatus de-energized except where otherwise specifically required by NETA.
 - a. Field coordinate shut-down with Owner to minimize interruption to their normal operations.
- 3. The testing agency shall have a designated safety representative who shall be present on the project and supervise operations with respect to safety.
- 4. Power circuits shall have conductors shorted to ground by a hot-line grounded device approved for the purpose.
- 5. In all cases, work shall not proceed until the safety representative has determined that it is safe to do so.
- 6. The testing agency shall have available sufficient protective barriers and warning signs to conduct specified tests safely.
- I. The following items of equipment shall be tested in accordance with NETA Specifications. All listed items shall have the NETA recommended visual and mechanical inspections performed by the Electrical Contractor. The testing agency shall perform the electrical tests noted.
 - 1. Existing low voltage switchboard consisting of:
 - a. All existing feeder circuit breakers feeding new equipment.

3.7 FAULT PROTECTION AND COORDINATION STUDY

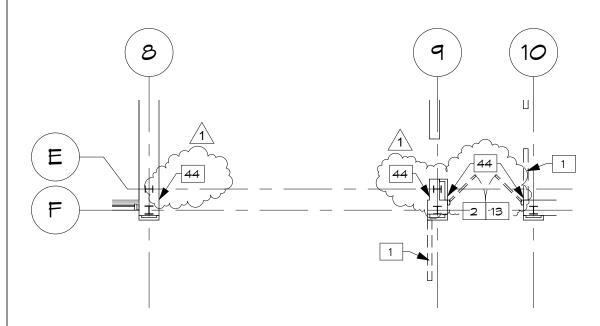
- A. A partial system coordination study for system protection to be performed by the testing company as specified herein before in this Section. Fault current calculations to be provided between existing main switchboard feeder breakers and new downstream panels only.
 - 1. The fault protection and coordination study shall include the following information:
 - a. Calculated available fault currents at all equipment busses and overcurrent protective devices in the system. Values shall be calculated for 3 phase

- bolted fault conditions. The current limiting effects of fuses shall be demonstrated in the report.
- b. Complete sets of time-current coordination curves, starting with devices at the point of service through to the branch devices in each item of equipment at the lowest levels of the distribution system.
- c. A complete set of transformer inrush and thermal withstand curves.
- d. A tabulation of all recommended relay settings including ground fault relay settings, fuse sizes and classes and circuit breaker trip settings; identifying each item by Manufacturer and catalog number.
- e. A tabulation of all necessary revisions and/or additional equipment required to achieve full selective coordination per Articles 620.62, 700.27 and 701.18 of the 2008 National Electrical Code.
- f. A tabulation of any cases where selective coordination is not obtainable and a description of the consequences of a downstream fault on continuity of service.
- g. The study shall also include any related data required for substation and clarification of the main content of the report.

3.8 IMPLEMENTATION OF RECOMMENDATIONS

- A. Upon approval of the final study by the testing company, the Contractor shall adjust protective device settings for new and existing protective devices in the affected equipment in accordance with the values recommended in the report.
- B. Upon approval of the final study by the testing company, the Contractor shall implement all recommendations included in the report to ensure that full selective coordination is achieved as per Articles 620.62, 700.27 and 701.18 of the 2008 National Electrical Code.
- C. The final selection of protective devices for all new equipment furnished under this Contract shall be based on the approved study.

END OF SECTION 16020



PARTIAL LARGE SCALE FIRST FLOOR DEMOLITION PLAN - SECTION A

SCALE: 1/8" = 1'-0"

(REF. TO DMG. X2.4)

Revisions		
No.	Date	Description
1	3/7/13	ADDENDUM #3

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK. THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT.

Murray Associates Architects, P.C.
CONSULTANT: CONSTRUCTION
 MANAGER

EASTERN PCM, LLC

645 N. 12TH STREET SUITE 200 LEMOYNE, PA 17043 T17-233-3816

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MHITNEY, BAILEY, COX & MAGNANI, LLC

ONE STERLING PLACE 100 STERLING PARKWAY SUITE 108 MECHANICSBURG, PA 17050 717-691-4708



ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING

HARRISBURG, PA

PARTIAL LARGE SCALE FIRST FLOOR DEMOLITION PLAN - SECTION A

CONSTRUCTION DOCUMENTS

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CHECKED BY:

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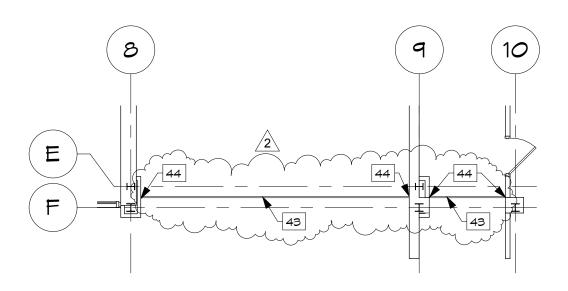
FEBRUARY 8, 2013

PROJECT NUMBER:

3395

DRAWING NUMBER:

SKA-10



PARTIAL LARGE SCALE SECOND FLOOR DEMOLITION PLAN - SECTION A

SCALE: 1/8" = 1'-0"

(REF. TO DWG. X2.6)

Revisions		
Date	Description	
2/22/13	ADDENDUM #1	
3/7/13	ADDENDUM #3	
	Date 2/22/13	

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ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING

HARRISBURG, PA

PARTIAL LARGE SCALE SECOND FLOOR DEMOLITION PLAN -SECTION A

CONSTRUCTION DOCUMENTS

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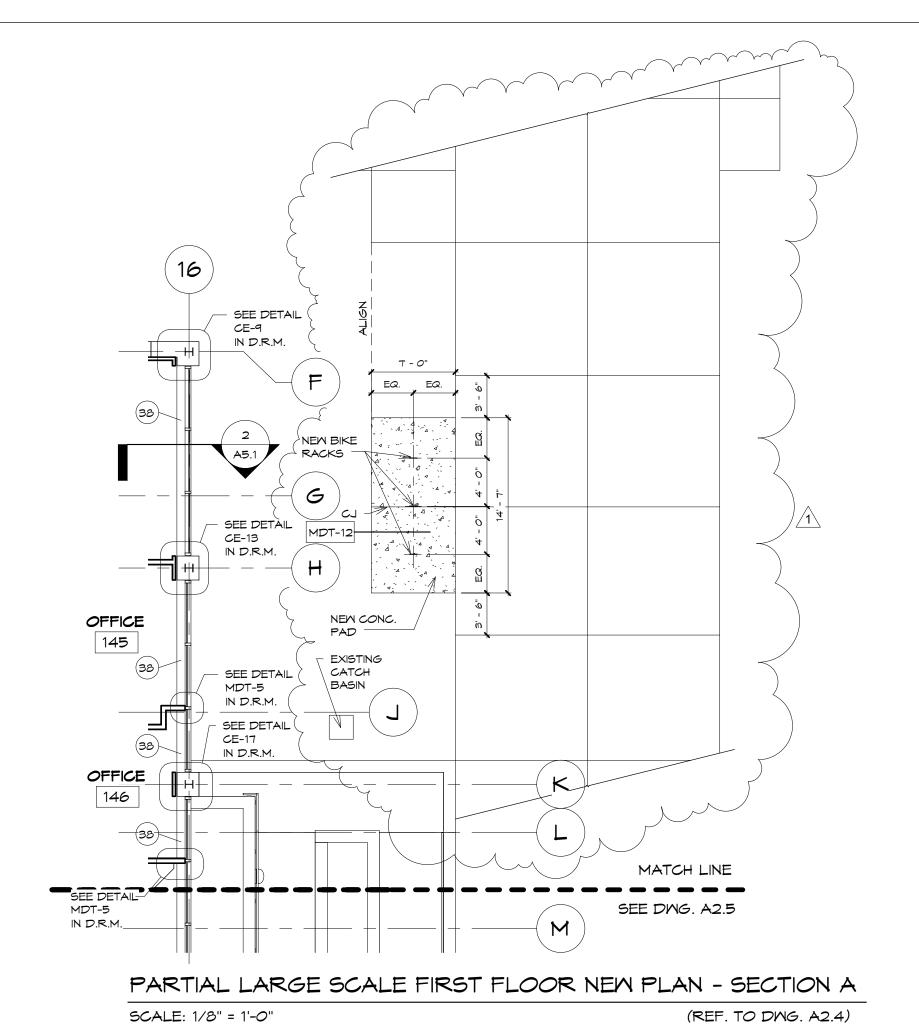
FEBRUARY 8, 2013

PROJECT NUMBER:

3395

DRAWING NUMBER:

SKA-11



No. Date Description

1 3/7/13 ADDENDUM #3

Revisions

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ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING

HARRISBURG, PA

PARTIAL LARGE SCALE FIRST FLOOR NEW PLAN -SECTION A

> CONSTRUCTION DOCUMENTS

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DATE:

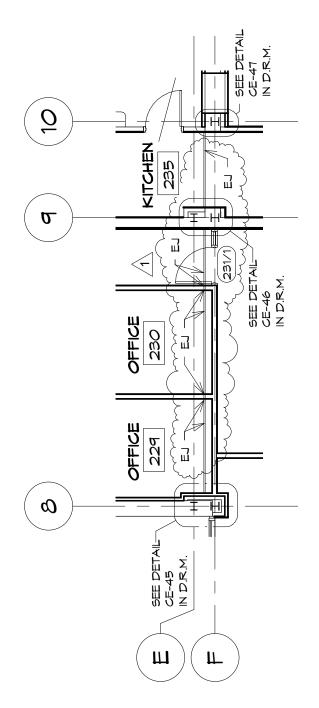
FEBRUARY 8, 2013

PROJECT N

3395

DRAWING NUMBER:

SKA-12



PARTIAL LARGE SCALE SECOND FLOOR NEW PLAN - SECTION A

(REF. TO DMG. A2.6)

SCALE: 1/8" = 1'-0"

Revisions

No. Date Description

1 3/7/13 ADDENDUM #3

THE CONTRACTOR SHALL VERIFY ALL

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ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING

HARRISBURG, PA

PARTIAL LARGE SCALE SECOND FLOOR NEW PLAN - SECTION A

CONSTRUCTION DOCUMENTS

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DATE:

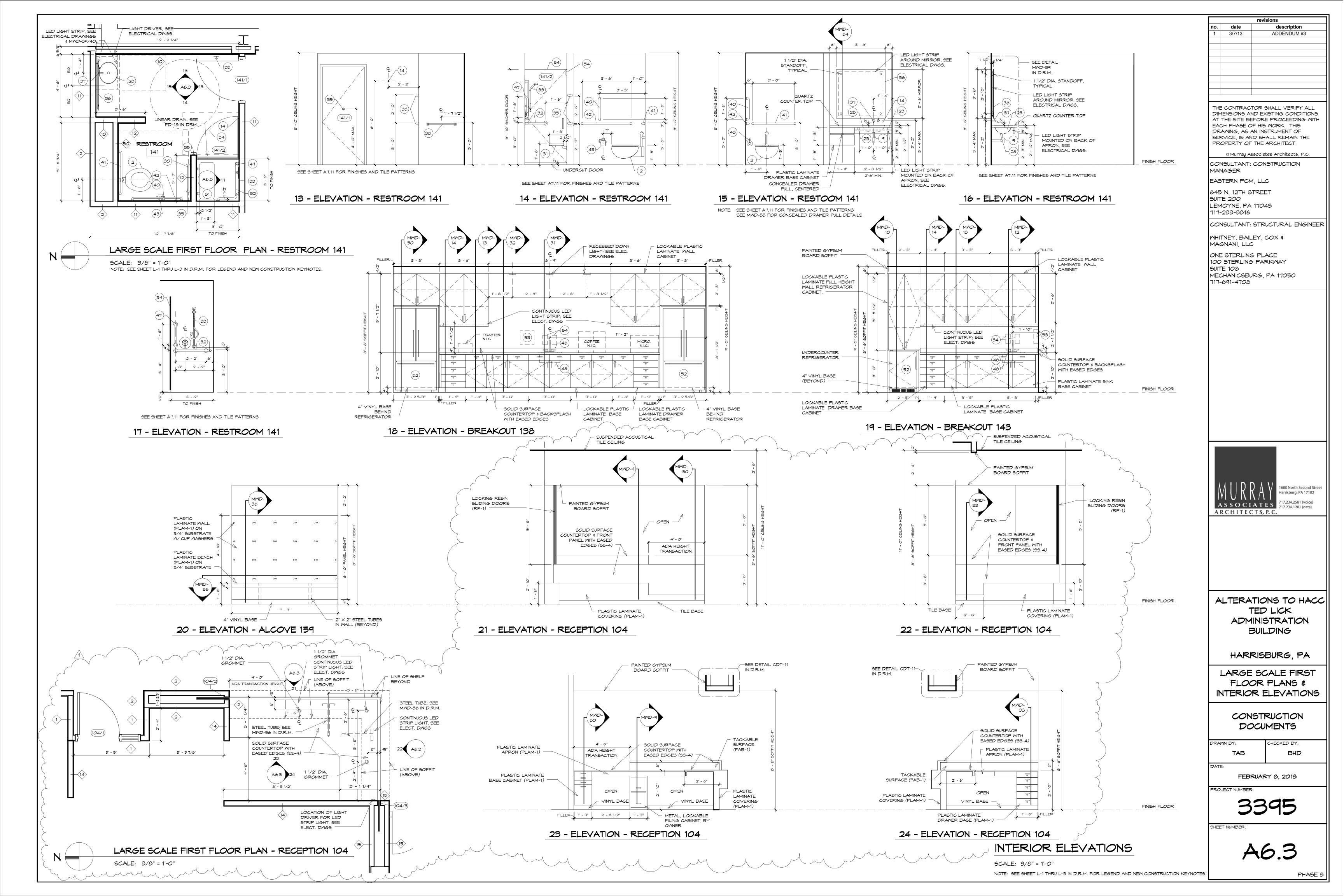
FEBRUARY 8, 2013

PROJECT NUMBER:

3395

DRAWING NUMBER:

SKA-13



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DRAWING NUMBER FIRST FLOOR PLAN - SECTION A -LIGHTING

EL2.3

GENERAL NOTES

1. ALL EXIT SIGNS SHALL BE CONNECTED TO THE NEAREST UNSWITCHED LIFE SAFETY CIRCUIT.

2. ALL LIFE SAFETY LIGHTING SHALL BE PROVIDED WITH UL 924 AUTOMATIC LOAD CONTROL RELAYS PER THE STANDARD DETAILS. UNDER NON-EMERGENCY CONDITIONS LIFE SAFETY LIGHTING SHALL BE CONTROLLED WITH THE REST OF THE NORMAL FIXTURES AS SHOWN. UNDER EMERGENCY CONDITIONS THE LIFE SAFETY LIGHTING SHALL COME ON TO 100%.

3. ALL SENSOR LOCATIONS ARE DIAGRAMMATIC IN NATURE. ACTUAL SENSOR TYPE, QUANTITY, AND LOCATIONS SHALL BE PROVIDED FOR UBIQUITOUS COVERAGE IN THE SPACES INDICATED. REFERENCE SS #16571 FOR SENSOR COVERAGE SHOP DRAWING REQUIREMENTS.

- 4. SWITCHES SHALL BE GANGED TOGETHER WHERE POSSIBLE.
- 5. PANEL CNE IS LOCATED IN THE THIRD FLOOR PENTHOUSE. 6. CLEAR AND RELAMP ALL EXISTING EXTERIOR LIGHTING
- WHICH IS TO REMAIN OPERATIONAL. 7. WIRE ALL UNDER CABINET LIGHTS OF TYPE SE-10 TO THE NEAREST UNSWITCHED 120 VOLT CIRCUIT AND PROVIDE A WALL SWITCH ABOVE THE COUNTER TO CONTROL ALL UNDER CABINET

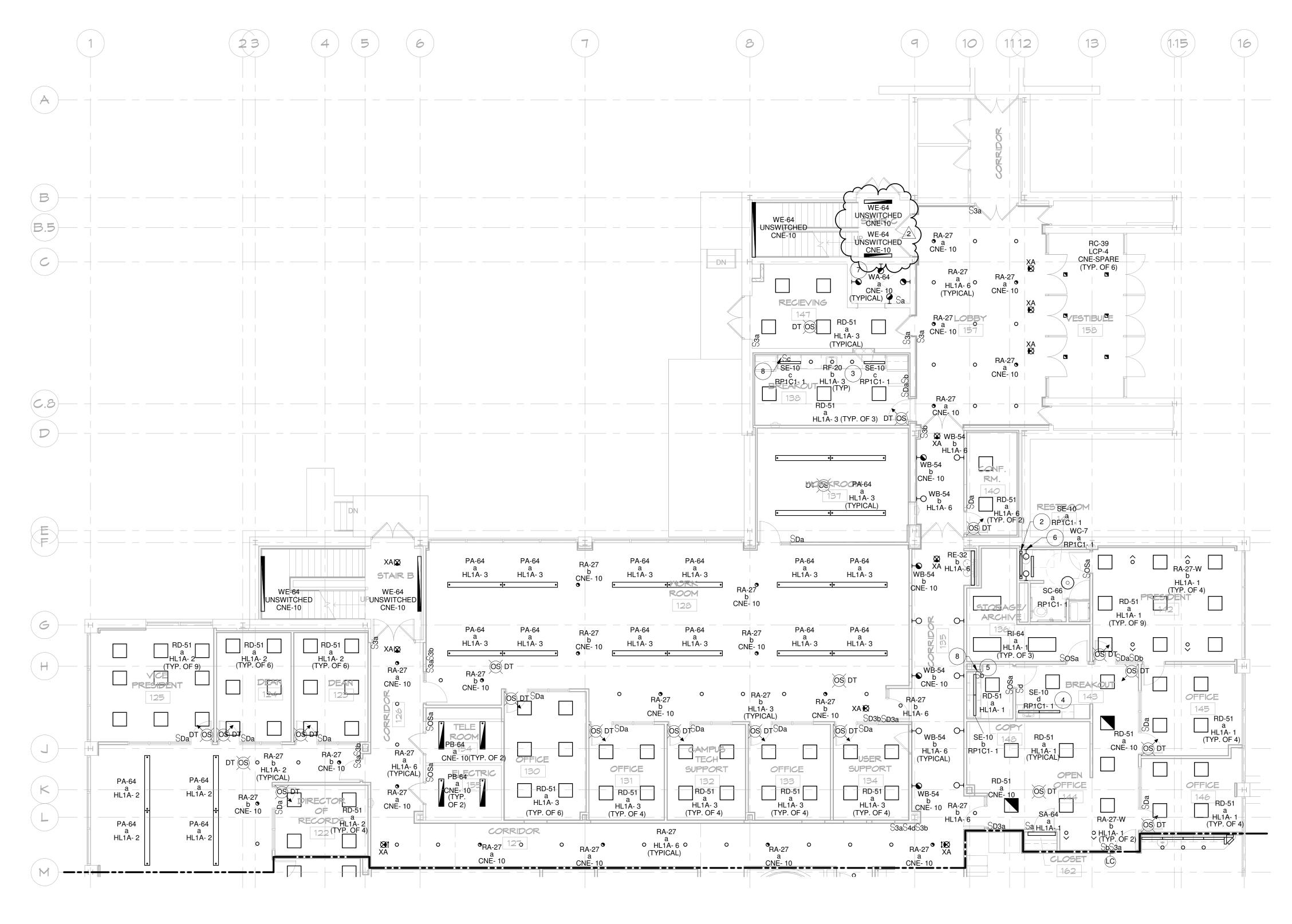
KEYED NOTES:

LIGHTS IN THE AREA.

- $(egin{array}{c} 1 \end{array})$ downlights of type <u>RA-27</u> throughout corridor.
- (2) SEE ARCHITECTURAL DETAILS 13, 14, 15, AND 16 ON SHEET \checkmark A6.3 FOR INFORMATION ABOUT THIS MIRROR AND SINK FOR EXACT MOUNTING LOCATIONS OF FIXTURE TYPE SE-10 BEHIND MIRROR AND BELOW SINK. WIRE ALL MIRROR AND UNDER SINK LIGHTS TO THE SAME 120 VOLT CIRCUIT AND SWITCH AS FIXTURE TYPE SC-66.
- (3) SEE ARCHITECTURAL DETAIL 18 ON SHEET A6.3 FOR EXACT LOCATION OF DOWNLIGHT TYPE RF-20 AND THE EXACT LOCATION AND LENGTH OF UNDER CABINET FIXTURE SE-10. (4) SEE ARCHITECTURAL DETAIL 19 ON SHEET A6.3 FOR EXACT
- LOCATION AND LENGTH OF UNDER CABINET LIGHT TYPE SE-5 SEE ARCHITECTURAL DETAIL 28 ON SHEET A6.3 FOR EXACT LOCATION AND LENGTH OF UNDER CABINET LIGHT TYPE SE-10.
- (6) MOUNT JUNCTION BOX FOR FIXTURE TYPE WC-7 AT 5'-6" A.F.F.. TWO FIXTURES OF TYPE WC-7 SHALL BE 120 VOLTS IN THIS LOCATION ONLY.
- 7 PROVIDE SINGLE POLE SWITCH FOR ELEVATOR SHAFT LIGHTING. LOCATE IN THE FIELD. COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH ALL OTHER TRADES. (8) PROVIDE SINGLE POLE SWITCH FOR UNDER CABINET LIGHTS SWITCH SHALL BE INLINE WITH RECEPTACLES ABOVE THE COUNTER. UNDER CABINET LIGHTS SHALL BE FED WITH CLOSEST UNSWITCHED 120VAC BRANCH CIRCUIT.

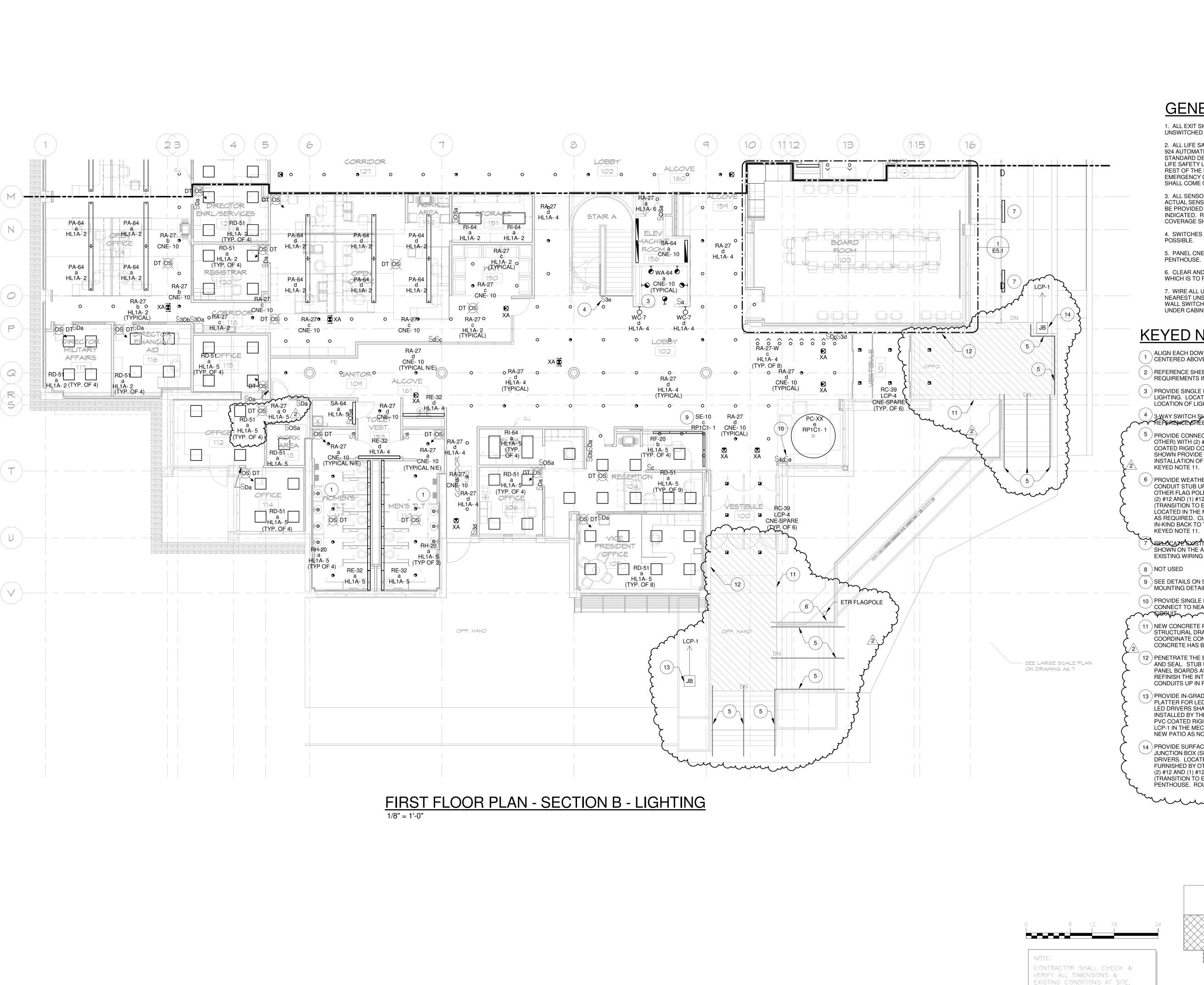
KEY PLAN

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & EXISTING CONDITIONS AT SITE.



FIRST FLOOR PLAN - SECTION A - LIGHTING

1/8" = 1'-0"



GENERAL NOTES

1. ALL EXIT SIGNS SHALL BE CONNECTED TO THE NEAREST UNSWITCHED LIFE SAFETY CIRCUIT.

2. ALL LIFE SAFETY LIGHTING SHALL BE PROVIDED WITH UL 924 AUTOMATIC LOAD CONTROL RELAYS PER THE STANDARD DETAILS. UNDER NON-EMERGENCY CONDITIONS LIFE SAFETY LIGHTING SHALL BE CONTROLLED WITH THE REST OF THE NORMAL FIXTURES AS SHOWN. UNDER EMERGENCY CONDITIONS THE LIFE SAFETY LIGHTING SHALL COME ON TO 100%.

3. ALL SENSOR LOCATIONS ARE DIAGRAMMATIC IN NATURE. ACTUAL SENSOR TYPE, QUANTITY, AND LOCATIONS SHALL BE PROVIDED FOR UBIQUITOUS COVERAGE IN THE SPACES INDICATED. REFERENCE SS #16571 FOR SENSOR COVERAGE SHOP DRAWING REQUIREMENTS.

4. SWITCHES SHALL BE GANGED TOGETHER WHERE

5. PANEL CNE IS LOCATED IN THE THIRD FLOOR

6. CLEAR AND RELAMP ALL EXISTING EXTERIOR LIGHTING WHICH IS TO REMAIN OPERATIONAL.

7. WIRE ALL UNDER CABINET LIGHTS OF TYPE SE-10 TO THE NEAREST UNSWITCHED 120 VOLT CIRCUIT AND PROVIDE A WALL SWITCH ABOVE THE COUNTER TO CONTROL ALL UNDER CABINET LIGHTS IN THE AREA.

KEYED NOTES:

- ALIGN EACH DOWNLIGHT OF TYPE RH-20 TO BE DIRECTLY 1 CENTERED ABOVE EACH SINK.
- 2 REFERENCE SHEET E5.1 FOR LIGHTING CONTROL ✓ REQUIREMENTS IN THIS SPACE.
- (3) PROVIDE SINGLE POLE SWITCH FOR ELEVATOR SHAFT $^{\prime}$ Lighting. Locate in the field. Coordinate exact LOCATION OF LIGHT FIXTURES WITH ALL OTHER TRADES.
- 4) 3-WAY SWITCH SHALL CONTROL STAIR A LIGHTS ABOVE REPERBUCE/SHEET BLZ.6.
- PROVIDE CONNECTION TO LED RAILING(S) (PROVIDED BY OTHER) WITH (2) #12 AND (1) #12 GROUND IN SUBGRADE PVC COATED RIGID CONDUIT. WIRE BACK TO LED DRIVERS AS SHOWN PROVIDE FITTINGS AS REQUIRED. COORDINATE INSTALLATION OF CONDUIT WITH GC WORK. REFERENCE KEYED NOTE 11.
- 6 PROVIDE WEATHERPROOF NEMA 5-20R RECEPTACLE ON $^{\prime}$ CONDUIT STUB UP FOR ONLY THE AMERICAN FLAG POLE. ALL OTHER FLAG POLES WILL BE REMOVED BY OTHERS. PROVIDE (2) #12 AND (1) #12 GROUND IN PVC COATED RIGID CONDUIT (TRANSITION TO EMT WHEN INSIDE) BACK TO RELAY LCP-3 LOCATED IN THE MECHANICAL PENTHOUSE. PROVIDE FITTINGS AS REQUIRED. CUT, REPAIR, AND REFINISH PATIO CONCRETE IN-KIND BACK TO THE HATCHED NEW PATIO. REFERENCE

7 RELOCATE EXISTING STAP LIGHT TO NEW POSITION AS SHOWN ON THE ARCHITECTURAL ELEVATIONS. EXTEND EXISTING WIRING AS NEEDED.

- 9 SEE DETAILS ON SHEET A6.4 FOR EXACT LENGTH AND ✓ MOUNTING DETAILS OF FIXTURE TYPE SE-10.
- (10) PROVIDE SINGLE POLE SWITCH FOR FIXTURE PC-XX. CONNECT TO NEAREST UNSWITCHED 120VAC BRANCH
- 11 NEW CONCRETE PATIO PER ARCHITECTURAL AND STRUCTURAL DRAWINGS. FOR REFERENCE ONLY. COORDINATE CONDUIT PLACEMENT WHEN EXISTING CONCRETE HAS BEEN DEMOLISHED.
- (12) PENETRATE THE BUILDING BELOW GRADE WITH CORE DRILL AND SEAL. STUB UP IN NEAREST FURRED WALL THEN ON TO PANEL BOARDS AS REQUIRED. DEMOLISH, REPARE AND REFINISH THE INTERIOR SLAB IN KIND AS REQUIRED TO GET CONDUITS UP IN FURRED WALL.
- 13 PROVIDE IN-GRADE QUAIZITE BOX (SIZE AS REQUIRED) IN THE PLATTER FOR LED RAILING DRIVER'S. LOCATE IN THE FIELD. LED DRIVERS SHALL BE FURNISHED BY OTHERS AND INSTALLED BY THE EC. PROVIDE (2) #12 AND (1) #12 GROUND IN PVC COATED RIGID CONDUIT (TRANSITION TO EMT INSIDE) TO LCP-1 IN THE MECHANICAL PENTHOUSE. ROUTE UNDERNÉATH NEW PATIO AS NOTED.
- (14) PROVIDE SURFACE MOUNTED NEMA 4X STAINLESS STEEL JUNCTION BOX (SIZE AS REQUIRED) FOR LED RAILING DRIVERS. LOCATE IN THE FIELD. LED DRIVERS SHALL BE FURNISHED BY OTHERS AND INSTALLED BY THE EC. PROVIDE (2) #12 AND (1) #12 GROUND IN PVC COATED RIGID CONDUIT (TRANSITION TO EMT INSIDE) TO LCP-1 IN THE MECHANICAL PENTHOUSE. ROUTE UNDERNEATH NEW PATIO AS NOTED.

KEY PLAN

02/08/2013 DRAWN BY CHECKED\APPROVED BY

> BRINJAC PROJ. NUMBER DRAWING NUMBER

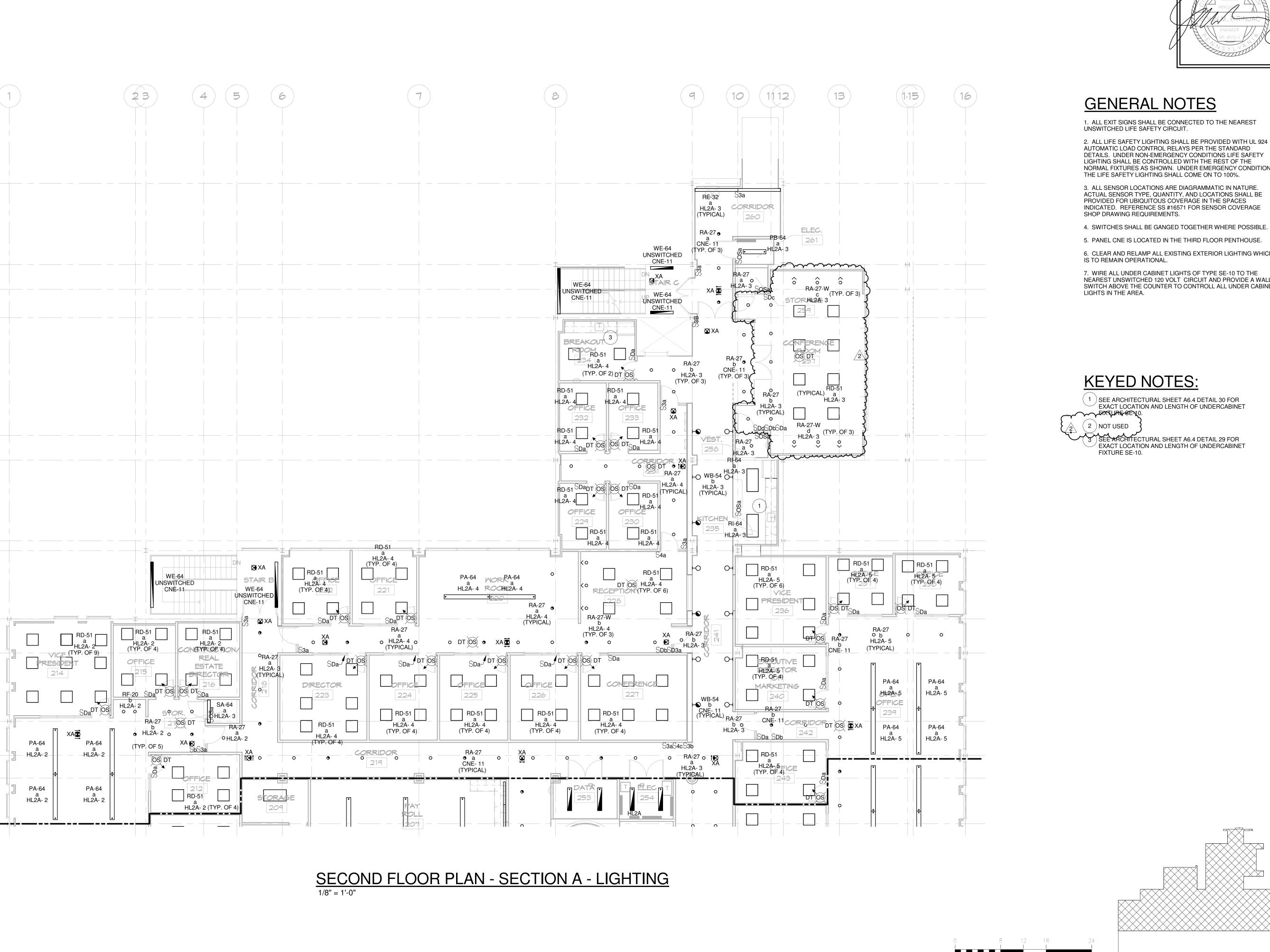
FIRST FLOOR PLAN - SECTION B -LIGHTING

STATION

CENTRAL

L ADMINIST PHASE 3 HALL RENC

MUMMA



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1. ALL EXIT SIGNS SHALL BE CONNECTED TO THE NEAREST UNSWITCHED LIFE SAFETY CIRCUIT.

NORMAL FIXTURES AS SHOWN. UNDER EMERGENCY CONDITIONS THE LIFE SAFETY LIGHTING SHALL COME ON TO 100%. 3. ALL SENSOR LOCATIONS ARE DIAGRAMMATIC IN NATURE. ACTUAL SENSOR TYPE, QUANTITY, AND LOCATIONS SHALL BE

PROVIDED FOR UBIQUITOUS COVERAGE IN THE SPACES INDICATED. REFERENCE SS #16571 FOR SENSOR COVERAGE

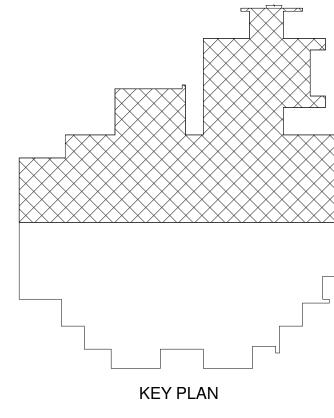
4. SWITCHES SHALL BE GANGED TOGETHER WHERE POSSIBLE.

6. CLEAR AND RELAMP ALL EXISTING EXTERIOR LIGHTING WHICH

7. WIRE ALL UNDER CABINET LIGHTS OF TYPE SE-10 TO THE NEAREST UNSWITCHED 120 VOLT CIRCUIT AND PROVIDE A WALL SWITCH ABOVE THE COUNTER TO CONTROLL ALL UNDER CABINET

1) SEE ARCHITECTURAL SHEET A6.4 DETAIL 30 FOR EXACT LOCATION AND LENGTH OF UNDERCABINET

3 SEE ARCHITECTURAL SHEET A6.4 DETAIL 29 FOR EXACT LOCATION AND LENGTH OF UNDERCABINET



CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS &

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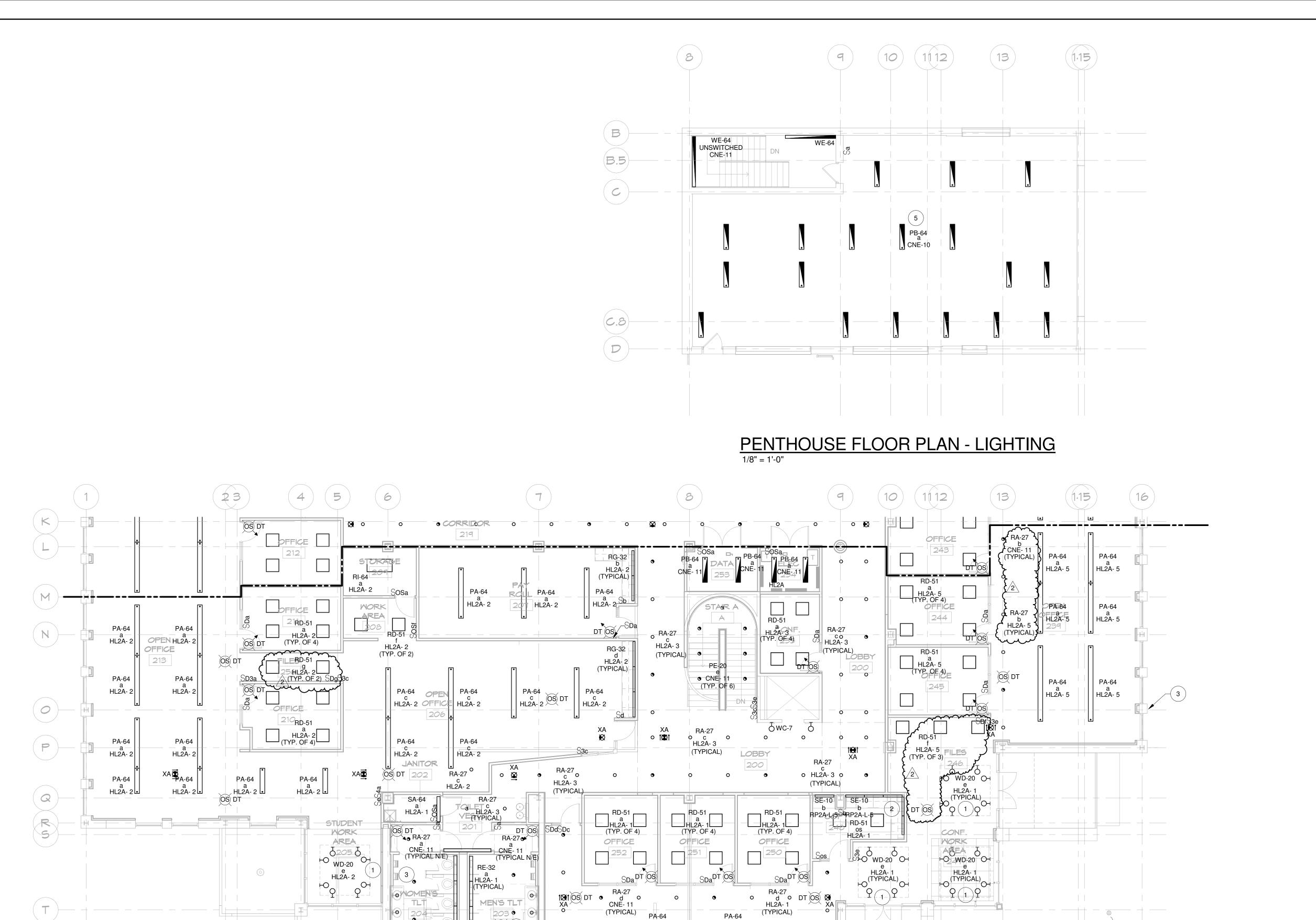
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CHECKED\APPROVED BY SDG BRINJAC PROJ. NUMBER

AL ADMINISTATION BUIL PHASE 3 -A HALL RENOVATIONS

DRAWING NUMBER SECOND FLOOR PLAN - SECTION A -LIGHTING

EL2.5



SECOND FLOOR PLAN - SECTION B - LIGHTING

1/8" = 1'-0"

MEN'S TLT

DT OS 3

RH-20 (TYP. OF 3) OS DT RE-32 HL2A-1 (TYPICAL)

GENERAL NOTES

1. ALL EXIT SIGNS SHALL BE CONNECTED TO THE NEAREST UNSWITCHED LIFE SAFETY CIRCUIT.

2. ALL LIFE SAFETY LIGHTING SHALL BE PROVIDED WITH UL 924 AUTOMATIC LOAD CONTROL RELAYS PER THE STANDARD DETAILS. UNDER NON-EMERGENCY CONDITIONS LIFE SAFETY LIGHTING SHALL BE CONTROLLED WITH THE REST OF THE NORMAL FIXTURES AS SHOWN. UNDER EMERGENCY CONDITIONS THE LIFE SAFETY LIGHTING SHALL COME ON TO 100%.

3. ALL SENSOR LOCATIONS ARE DIAGRAMMATIC IN NATURE. ACTUAL SENSOR TYPE, QUANTITY, AND LOCATIONS SHALL BE PROVIDED FOR UBIQUITOUS COVERAGE IN THE SPACES INDICATED. REFERENCE SS # 16571 FOR SENSOR COVERAGE SHOP DRAWING REQUIREMENTS.

4. SWITCHES SHALL BE GANGED TOGETHER WHERE POSSIBLE

5. PANEL CNE IS LOCATED IN THE THIRD FLOOR PENTHOUSE.

6. CLEAR AND RELAMP ALL EXISTING EXTERIOR LIGHTING WHICH IS TO REMAIN OPERATIONAL.

7. WIRE ALL UNDER CABINET LIGHTS OF TYPE SE-10 TO THE NEAREST UNSWITCHED 120 VOLT CIRCUIT AND PROVIDE A WALL SWITCH ABOVE THE COUNTER TO CONTROLL ALL UNDER CABINET LIGHTS IN

KEYED NOTES:

- 1) FIXTURES MOUNTED TO THE INSIDE FACE OF THE SKYLIGHT
- 2) SEE DETAILS ON SHEET A6.4 FOR EXACT LENGTH AND ✓ MOUNTING DETAILS OF FIXTURE TYPE SE-10.
- PROVIDE EXTERIOR MOUNTED JUNCTION BOX MOUNTED (3) JUST ABOVE THE ARCHITECTURAL SUN SHADE. PROVIDE (2) #12 AND (1) #12 GROUND TO RELAY LCP1A-3 LOCATED IN THE MECHANÌCAL PENTHOUSE.
- (4) ALIGN EACH DOWNLIGHT OF TYPE RH-20 TO BE DIRECTLY CENTERED ABOVE EACH SINK.
- (5) REMOVE AND DISPOSE OF ALL LIGHITING AND ASSOCIATED WIRING AND DEVICES IN THE AREA. COORDINATE FINAL MOUNTING OF ALL FIXTURES OF TYPE PB-64 IN THIS AREA WITH OTHER TRADES. MOUNT THE BOTTOM OF THE FIXTURE AT HIGH AS POSSIBLE BUT NOT TO EXCEED 9'-0". DO NOT MOUNT THE FIXTURE BELOW 6'-6" ABOVE FINISH

CONTRACTOR SHALL CHECK &

02/08/2013 DRAWN BY CHECKED\APPROVED BY SDG BRINJAC PROJ. NUMBEF DRAWING NUMBER

SECOND FLOOR PLAN - SECTION B -LIGHTING

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DING.

AL ADMINISTATION BUIL PHASE 3 -A HALL RENOVATIONS

CENTRAL

MUMMA

EL2.6

KEY PLAN

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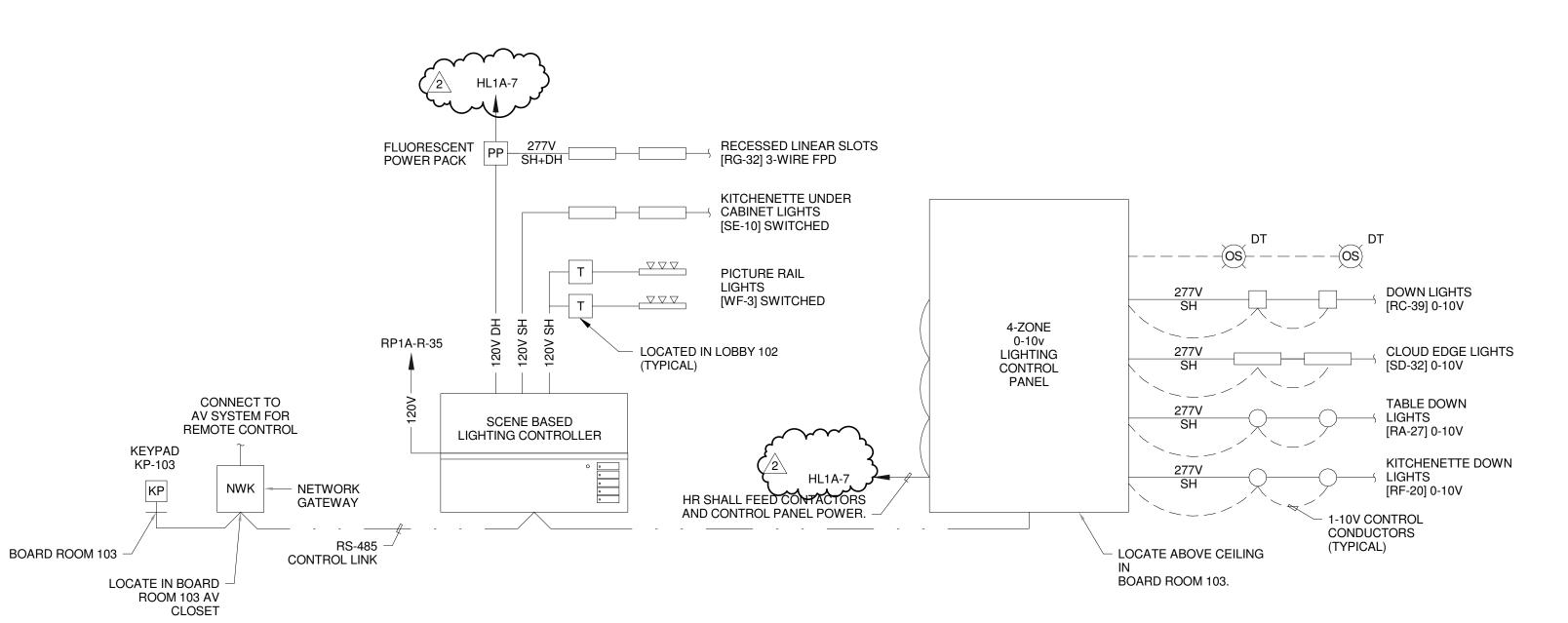
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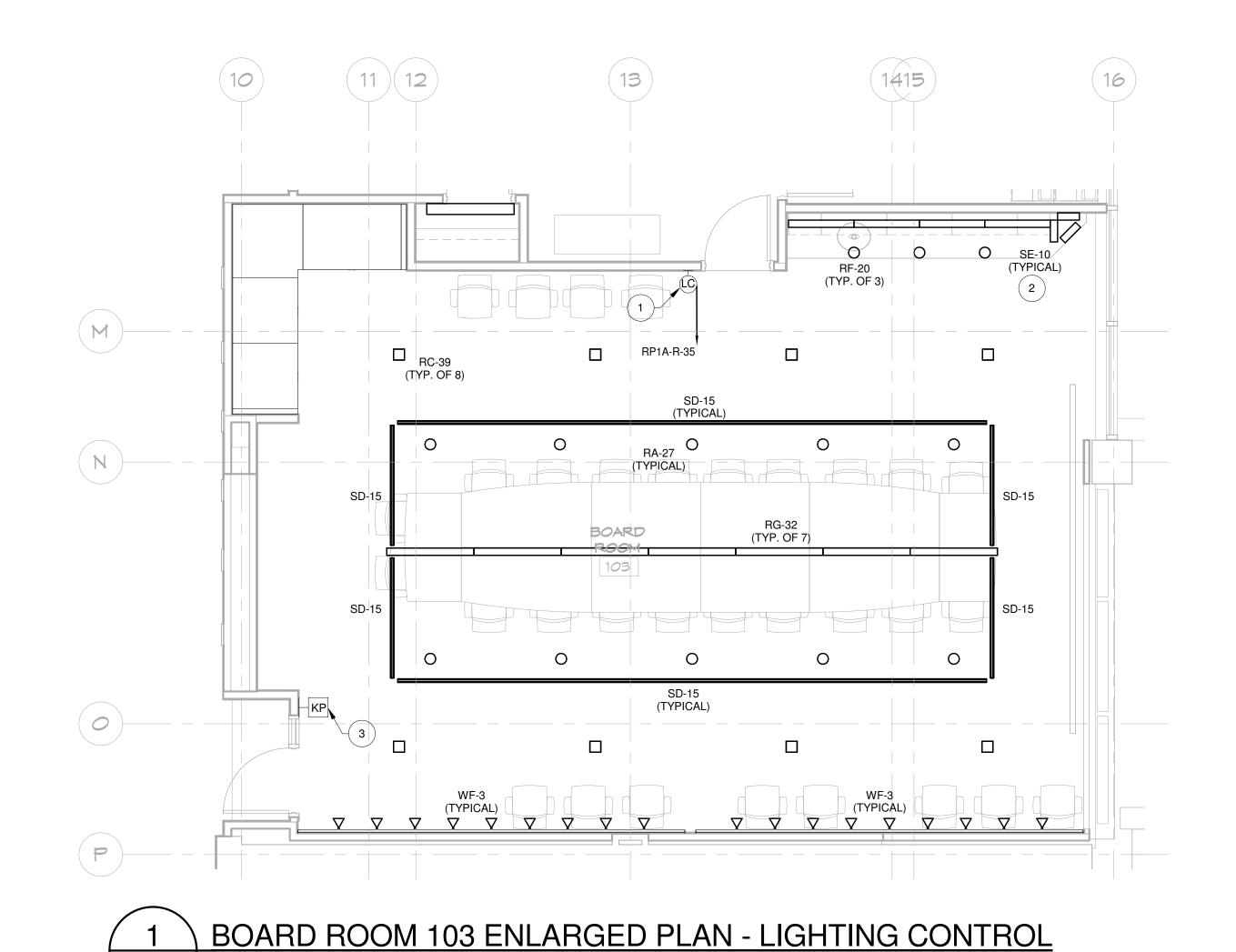
JLS
BRINJAC PROJ. NUMBER
12113

BOARD ROOM 103 ENLARGED PLAN -LIGHTING CONTROL

NEW SHEET **E5.1**



BOARD ROOM 103 RISER - LIGHTING CONTROL



GENERAL NOTES

1. ALL CABLING SHALL BE PER MANUFACTURER RECOMMENDATIONS.

2. ALL FINISHES SHALL BE SUBMITTED PER THE SPECIFICATIONS AND APPROVED IN WRITING BY THE ARCHITECT.

3. OCCUPANCY SENSORS SHALL BE PROVIDED IN TYPES AND QUANTITIES FOR UBIQUITOUS VOLUMETRIC COVERAGE OF THIS SPACE. PROVIDE POWER SUPPLIES AS REQUIRED TO OPERATE ALL OCCUPANT SENSORS. SENSORS COVERAGE PATTERS SHALL BE SUBMITTED AS PART OF THE SHOP DRAWING PROCESS.

4. PROVIDE RS-485 POWER SUPPLIES AS REQUIRED TO OPERATE ALL DEVICES.

5. LIGHT SOURCES, POWER MODULES, AND CABLING SHALL BE COORDINATED TO MEET THE INTENT OF THE RISER DIAGRAM.

6. LIGHTING CONTROL DEVICES SUCH AS POWER PACKS, I/O DEVICES, ETHERNET/RS-232 GATEQAYS SHALL BE LOCATED IN UTILITY SPACES (NOT INTERFERING WITH OTHER EQUIPMENT), ABOVE DROP CEILINGS OR AS SHOWN ON PLAN. DEVICES SHALL BE NEATLY AND INCONSPICUOUSLY INSTALLED.

7. PROVIDE 4-GANG 3.5" DEEP METAL BACK BOX FOR SCENE BASED LIGHTING CONTROLLER(S). CONTROL UNITS SHALL BE MOUNTED 46" AFF TO THE CENTER.

8. ALL BUTTONS SHALL BE LASER ENGRAVED IN THE FACTORY.

SEQUENCE OF OPERATIONS

1. BOARD ROOM 103 SHALL HAVE DIMMABLE LIGHT FIXTURES AS SHOWN ON PLAN. ALL LIGHTING CONTROLS SHALL BE COMPATIBLE WITH FIXTURES, BALLASTS, AND DRIVERS PROVIDED.

2. LIGHTING CONTROL SHALL BE SCENE BASED.

3. LIGHTS SHALL GO TO PRESET 1 ON FIRST OCCUPANT SENSE. OCCUPANT SENSES SHALL NOT AFFECT THE LIGHTING CONTROL SYSTEM WHILE THE SPACE IS OCCUPIED. OCCUPANT SENSORS SHALL TURN LIGHTS OFF AFTER 15 MINUTES OF VACANCY.

4. SCENE RECALLS SHALL BE INTEGRATED INTO THE A/V TOUCH PANELS. PROVIDE INTERFACE AS SHOWN.

5. KEYPADS SHALL HAVE (4) PRESETS, OFF, AND MASTER RAISE/LOWER.

KEYED NOTES:

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS &

EXISTING CONDITIONS AT SITE.

1 PROVIDE 4-GANG 3.5" DEEP BACK BOX AT 46" AFF FOR SCENE BASED LIGHTING CONTROL UNIT.

2 SEE DETAILS ON SHEET A6.4 FOR EXACT MOUNTING LOCATIONS FOR DOWNLIGHT RF-20 AS WELL AS LENGTH AND MOUNTING LOCATIONS FOR UNDERCABINET LIGHT SE-10.

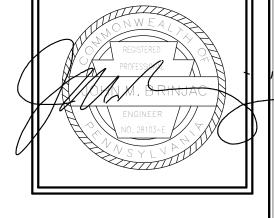
3 PROVIDE LIGHTING CONTROL KEYPAD AT 46" AFF. REFERENCE RISER ON THIS SHEET FOR MORE INFORMATION.

KEY PLAN

	PANEL DESIGNATION LOCATION MOUNTING	ELEC SURF	155 CE	— —		I	BUS AMP PHASE NOTES:	100A 3	-	MIN. A.I.C. WIRE	10,000		MA	IN BRE	AKER TAGE		90 480Y/27	7	-	
3 7 9		BREAKER AMP POLI 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1	L	2.6	C 2.X 0.0	NO 2 2 2 2 2	WIRE SIZE 12 12 12 12 12	GND. SIZE 12 12 12 12 12	COND SIZE 3/4 3/4 3/4 3/4	COND SIZE 3/4 3/4 3/4	GND. SIZE 12 12 12	WIRE SIZE 12 12 12	NO 2 2 2 2	LO. A 3.3	AD (K B 1.3		BREAK POLES 1 1 1 1 1 1 1 1	AMP	DESCRIPTION LIGHTS LIGHTS LIGHTS SPARE SPARE SPARE SPARE SPARE	CI N N 2 2 2 4 6 8 1 1 1 1 1 1
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19	SPARE SPARE	20 1	0.0	0.0										0.0	0.0		1	20	SPARE SPARE	2
23	SPARE	20 1	0.0		0.0									0.0	0.0	0.0	1	20	SPARE	2
15 17 19 11 13	SPARE SPARE	20 1 20 1 20 1	0.0	0.0	0.0									0.0	0.0	0.0	1 1 1	20 20 20	SPARE SPARE SPARE	2 3 3 3
7			0											0	0					3
1	SIDE TOTAL KW LOAD		3	3	0 2									3	0	0			SIDE TOTAL KW LOAD	4
	PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	SURFA	CE		_		PHASE NOTES:	PREVIOL	JSLY PANE	MIN. A.I.C. WIRE L'CL RIGH	4 T SIDE'	-	МА	I	TAGE		MLO 480Y/277		-	
T)	DESCRIPTION	BREAKER AMP POLI	_	OAD (K	(W)	NO	WIRE SIZE	GND. SIZE	COND	COND SIZE	GND. SIZE	WIRE SIZE	NO	LO.	AD (K		BREAK POLES			C
	SPACE - PFFB SPACE - PFFB	1	0.0	0.0										0.0	0.0		1		SPACE - PFFB SPACE - PFFB	
	SPACE - PFFB SPACE - PFFB	1	0.0		0.0									0.0		0.0	1		SPACE - PFFB SPACE - PFFB	
-	SPACE - PFFB SPACE - PFFB	1		0.0	0.0										0.0	0.0	1		SPACE - PFFB SPACE - PFFB	
-	SPACE - PFFB SPACE - PFFB	1	0.0	0.0										0.0	0.0		1		SPACE - PFFB SPACE - PFFB	
-	SPACE - PFFB SPACE - PFFB	1 1	0.0		0.0									0.0		0.0	1		SPACE - PFFB SPACE - PFFB	
	SPACE - PFFB SPACE - PFFB	1		0.0	0.0										0.0	0.0	1		SPACE - PFFB SPACE - PFFB	
	SPACE - PFFB SPACE - PFFB	1	0.0	0.0	0.0									0.0	0.0	0.0	1		SPACE - PFFB SPACE - PFFB	
	SPACE - PFFB SPACE - PFFB	1 1	0.0		0.0									0.0	J.U	0.0	1 1		SPACE - PFFB SPACE - PFFB	
	SPACE - PFFB	1	0.0	0.0	0.0									U.U	0.0	0.0	1 1		SPACE - PFFB SPACE - PFFB SPACE - PFFB	
-					0.0											0.0	ı			
5 7	SPACE - PFFB SPACE - PFFB	1	0.0											0.0			1		SPACE - PFFB	
5 7 9	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION	1 1 1 1 HM1	0 B R	0.0	0.0				-	MIN. A.I.C.		-	MA	0 IN BRE			1 1	7	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD	3 4 4
)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	HM1 ELEC SURF	0 B R 155	0.0	0.0		PHASE	3	-	MIN. A.I.C. WIRE EL 'CHP RIG	4	-	MA	0 IN BRE.	0	0	1 1		SPACE - PFFB SPACE - PFFB	
(TT)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	HM1 ELEC SURFA	0 B R 155 CE	0.0 0	0.0	NO	PHASE NOTES:	3 PREVIOU	JSLY PANE	WIRE	4 HT SIDE'	-	MA	0 IN BRE.	0 AKER TAGE		1 1 MLO 480Y/277	(ER	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD	C
T)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	HM1 ELEC SURFA 42 BREAKER AMP POLI	0 B R 155 CE	0.0 0	0.0 0		PHASE NOTES:	3 PREVIOU	JSLY PANE	WIRE L'CHP RIG	4 HT SIDE' GND.	WIRE		IN BRE VOL	0 AKER TAGE		MLO 480Y/27	(ER	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION	C 1
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(TT)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB	HM1 ELEC SURF/ 42 BREAKER AMP POLI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 B R 155 CCE	0.0 OAD (K B 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0 0 0 0.0 0.0 0.0 0.0	NO	WIRE SIZE BUS AMP PHASE	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ##EXIST	COND SIZE SIZE SIZE SIZE SIZE SIZE SIZE SIZE	WIRE COND SIZE MIN. A.I.C. WIRE	4 HT SIDE' GND. SIZE X 4 ING AND F	WIRE SIZE	MA NEW AS	0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 IN BRE. VOL. SINDIC/	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE	0	MLO 480Y/27 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CH CI	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
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TD)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B OAD (K	0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NO	WIRE SIZE BUS AMP PHASE NOTES:	3 PREVIOUS GND. SIZE 225A 3 # EXISTII ## EXIST GND.	COND SIZE NG; \$ REM TING CIRC COND	MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND	4 HT SIDE' GND. SIZE X 4 ING AND FREVIOUSLY GND.	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE	MA NEW AS O AS 'CP	0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 IN BRE. VOL. SINDIC. C. RE-T. NCH CI LO.	O AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CH CIID. CER AMP 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
(T)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB S	HM1	0	OAD (K B O.0	0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NO NO 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE SIZE 12	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ## EXIST ### EXIST SIZE 12	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4	MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND SIZE 3/4	4 HT SIDE' GND. SIZE X 4 ING AND FREVIOUSL' ER. REUS GND. SIZE 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12	MA NEW AS O AS 'CP EW BRAI	IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 0.0 0.0 in Bre. Vol. in Indic, in Re-T, NCH CI LO, A	OAKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CH CIID. CER AMP 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
(T)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B O.0	0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NO 2 2 2 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ## EXIST GND. SIZE 12 12	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4 3/4 3/4	MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND SIZE 3/4	4 HT SIDE' GND. SIZE X 4 ING AND FREVIOUSL' ER. REUS GND. SIZE 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12	MA NEW AS O AS 'CP EW BRAI	0	OAKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CH CIID. CER AMP 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB SPACE - PFF	
(T)	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES SPACE - PFFB S	HM1	O	OAD (K B 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	(W) C O.0	NO	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ## EXIST GND. SIZE 12 12 12 12	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4 3/4 3/4 3/4 3/4	MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE COND SIZE OND SIZE 3/4 3/4	A HT SIDE' GND. SIZE X 4 ING AND F REVIOUSL' ER. REUS GND. SIZE 12 10	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12 10	MA NEW AS O AS 'CP EW BRAI NO 2 4	0	OAKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CH CIID. CER AMP 20 30	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
	SPACE - PFFB SPACE - PFFB SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B O.0	(W) C O.0	NO 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 3 # EXISTI ## EXIST ## EXIST 12 12 12 12 12 12 12 12	COND SIZE SIZE NG; \$ REM TING PANEL TING CIRC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	A HT SIDE' GND. SIZE X 4 ING AND FREVIOUSL' ER. REUS GND. SIZE 12 10 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12 10 12 12 12 12 12 12	MA NEW AS O AS 'CP EW BRAI NO 2 4 2 2 2 2 2 2	0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 CH CI D. (ER AMP 20 30 20 20 20 20	DESCRIPTION SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB SPACE - PFFB	
T)	SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B O.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NO 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ##EXIST GND. SIZE 12 12 12 12 12 12 12 12 12 12	COND SIZE NG; \$ REM ING CINC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/	MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	X 4 ING AND F ER. REUS GND. SIZE 12 10 12 12 12 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGE SE FOR NE WIRE SIZE 10 12 12 12 12 12 12 12 12 12	MA NEW AS O AS 'CP EW BRAI 2 2 2 2 2 2 2 2	0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 IN BRE. VOL. SINDIC/O. A 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/273 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 CH CII D. (ER AMP 20 30 20 20 20 20 20 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
(TT)	SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NO NO 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	MIN. A.I.C. WIRE OVE EXIST BOARD PF UIT BREAK COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 HT SIDE' GND. SIZE X 4 ING AND F REVIOUSL' ER. REUS GND. SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12 12 12	MA NEW AS DAS CPEW BRAI NO 2 4 2 2 2 2 2 2 2 2 2 2	0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/27 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CER AMP O CH CII D. CER AMP 20 20 20 20 20 20 20 20 20 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB SPACE - PFF	
(T)	SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NO 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 225A 3 #EXISTII ##EXIST GND. SIZE 12 12 12 12 12 12 12 12 12 12	COND SIZE NG; \$ REM ING CINC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/	MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 HT SIDE' GND. SIZE X 4 ING AND F REVIOUSL' ER. REUS GND. SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	MA NEW AS O AS 'CP EW BRAI O 2 2 2 2 2 2 2 2 2 4	0	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/27 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 CH CII D. CER AMP 20 30 20 20 20 20 20 20 20 20 20 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	
(T)	SPACE - PFFB SPACE	HM1	O	OAD (K B 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	(W) C O.0	NO 2 2 2 2 2 2 2 2 2 2 3*	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 3 #EXISTII ## EXIST ## EXIST 12 12 12 12 12 12 12 12 12 12	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	MIN. A.I.C. WIRE SIZE MIN. A.I.C. WIRE IOVE EXIST LBOARD PF UIT BREAK COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 HT SIDE' GND. SIZE X 4 ING AND FREVIOUSL' ER. REUS GND. SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12 12 12	MA NEW AS O AS 'CP EW BRAI 1 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 IN BRE. VOL. A 0.0 0.0 0.0 0.0 0.0 0.0 0.0 IN BRE. VOL. S INDIC. C INDI	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/27 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CER AMP O CH CI D. CER AMP 20 30 20 20 20 20 20 20 20 20 20 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB SPACE - PFF	
(T)	SPACE - PFFB SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION SPACE - PFFB S	HM1 1 1 1 1 1 1 1 1 1	O	OAD (K B O.0	(W) C O.0	NO 2 2 2 2 2 2 2 2 2 2 3*	WIRE SIZE BUS AMP PHASE NOTES: WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 3 #EXISTII ## EXIST ## EXIST 12 12 12 12 12 12 12 12 12 12	COND SIZE NG; \$ REM ING PANEL TING CIRC COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	MIN. A.I.C. WIRE IOVE EXIST BOARD PF UIT BREAK COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 HT SIDE' GND. SIZE X 4 ING AND F REVIOUSL' ER. REUS GND. SIZE 12 10 12 12 12 12 12 12 12 12 12 12 12 12 12	WIRE SIZE PROVIDE N Y TAGGED SE FOR NE WIRE 12 12 12 12 12 12 12 12 12 12 12 12 12	MA NEW AS O AS 'CP EW BRAI O 2 2 2 2 2 2 2 2 2 4	0	0 AKER TAGE AD (K B 0.0 0.0 0.0 0.0 0.0 0.0 AKER TAGE ATED AG RE RCUIT AD (K B 2.9 1.4 0.5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLO 480Y/27 BREAK POLES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 CH CII D. CER AMP 20 30 20 20 20 20 20 20 20 20 20 20	SPACE - PFFB SPACE - PFFB SIDE TOTAL KW LOAD DESCRIPTION SPACE - PFFB	

	PANEL DESIGNATION		HM1A			_		BUS AMP		-	MIN. A.I.C.		_	MA	IN BRE			MLO		_	
	LOCATION		ELEC 15		_			PHASE		-	WIRE		_		VOL	TAGE		480Y/27	77	_	
	MOUNTING		SURFAC	E	_			NOTES:	PREVIOL	JSLY PANE	L 'CL LEFT	SIDE'					1	٦			
	TOTAL POLES		42		-										0	0	0	SECT	ION 2	TOTAL KW LOAD	
СКТ		BREA	KER	10	DAD (K	\ \ / \		WIRE	GND.	COND	COND	GND.	WIRE		10	AD (K	W)	BREA	KER		
NO	DESCRIPTION		POLES		В		NO	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	NO	A	В	С	POLES		DESCRIPTION	
	HEAT PUMP HP-1	15	1	1.2			2	12	12	3/4	3/4	12	12	2	1.1			1		HEAT PUMP HP-2	
	HEAT PUMP HP-7	15	1		1.1		2	12	12	3/4	3/4	12	12	2		3.7		1		HEAT PUMP HP-3	
_	HEAT PUMP HP-4	15	1			1.5	2	12	12	3/4	3/4	12	12	2			1.2	1		HEAT PUMP HP-5	
	HEAT PUMP HP-6	20	1	3.7			2	12	12	3/4	3/4	12	12	2	3.7			1		HEAT PUMP HP-11	
_	HEAT PUMP HP-14	15	1		1.5		2	12	12	3/4	3/4	12	12	2		1.5		1		HEAT PUMP HP-15	
	HEAT PUMP HP-16	15	1			1.5	2	12	12	3/4	3/4	12	12	2			1.5	1	_	HEAT PUMP HP-17	
13	HEAT PUMP HP-13	15	1	2.2			2	12	12	3/4	3/4	12	12	2	2.7			1		HEAT PUMP HP-18	
	HEAT PUMP HP-19	20	3		3.6		4	12	12	3/4	3/4	12	12	2		1.1		1	_	HEAT PUMP HP-9	
17						3.6					3/4	12	12	2			1.1	1		HEAT PUMP HP-10	
19				3.6							3/4	12	12	2	2.2			1		HEAT PUMP HP-12	
	HEAT PUMP HP-58	15	1		1.2		2	12	12	3/4	3/4	12	12	2		2.0		1		WALL HEATER EWH-2	
23	SPARE	15	1			0.0											0.0	1	20	SPARE	
_	SPARE	15	1	0.0											0.0			1		SPARE	
	SPARE	15	1		0.0											0.0		1	_	SPARE	
_	SPARE	15	1			0.0											0.0	1	20	SPARE	
	SPARE	15	1	0.0											0.0			1	+	SPARE	
	SPARE	15	1		0.0											0.0		1		SPARE	
	SPARE	15	1			0.0											0.0	1	20	SPARE	
	SPARE	15	1	0.0											0.0			1	20	SPARE	
			-									1					1	1 .			
	SPARE	15	1		0.0											0.0		1	20	SPARE	
	SPARE SPARE SIDE TOTAL KW LOAD	15 15	1	11	7	0.0									10	0.0	0.0	1	20 20	SPARE SPARE SIDE TOTAL KW LOAD	
	SPARE SIDE TOTAL KW LOAD		1			1		RUS AMP	4004		MINI A I C	Y		MA		8	4	1	20	SPARE	
	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION	15	1 HM1B	L		1		BUS AMP		-	MIN. A.I.C.			MA	IN BRE	8 AKER	4	1 MLO	20	SPARE	
	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION	15	HM1B	L 5		1		PHASE	3	-	WIRE	4		MA	IN BRE	8	4	1	20	SPARE	
	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING	15	1 HM1B	L 5		1		PHASE	3	-		4		MA	IN BRE	8 AKER	4	MLO 480Y/27	20	SPARE	
	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION	15	HM1B ELEC 15	L 5		1		PHASE	3	-	WIRE	4		MA	IN BRE	8 AKER TAGE	4	MLO 480Y/27	20	SPARE SIDE TOTAL KW LOAD	
41	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	15	HM1B ELEC 15 SURFAC 42	L 5 E		7		PHASE	3	-	WIRE	4	WIRE	MA	IN BRE VOL	8 AKER TAGE	0	MLO 480Y/27	777	SPARE SIDE TOTAL KW LOAD	
41	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	I5	HM1B ELEC 15 SURFAC 42	L 5 E	7	7	NO	PHASE NOTES:	3 PREVIOU	- - JSLY PANE	WIRE	4 T SIDE'	-	MA	IN BRE VOL	8 AKER TAGE	0 W)	MLO 480Y/27	77 TION 2	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD	
CKT NO	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES	I5	HM1B ELEC 15 SURFAC 42	L 5 E	7	7 - W)		PHASE NOTES:	3 PREVIOU	JSLY PANE	WIRE	4 T SIDE' GND.	WIRE		IN BRE VOL 0 LO A	8 AKER TAGE 0	0 W)	MLO 480Y/27 SECT	777 TION 2 TION	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD	
CKT NO 1	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION	BREA AMP	HM1B ELEC 15 SURFAC 42 KER POLES	L 5 E	7	7 - W)	NO	PHASE NOTES: WIRE SIZE	3 PREVIOU	COND SIZE	WIRE L'CHP LEF	4 T SIDE' GND. SIZE	WIRE SIZE	NO	IN BRE VOL	8 AKER TAGE 0	0 W)	MLO 480Y/27 SECT BREA POLES	777 TION 2 TION	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION	
CKT NO 1 3	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	BREA AMP	HM1B ELEC 15 SURFAC 42 KER POLES	L 5 E	7 7	7 - W)	NO	PHASE NOTES: WIRE SIZE	3 PREVIOU	COND SIZE	WIRE L'CHP LEF	4 T SIDE' GND. SIZE	WIRE SIZE	NO	IN BRE VOL 0 LO A	8 AKER TAGE 0 AD (K	0 W)	MLO 480Y/27 SECT BREA POLES	777 TION 2 TION	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	BREA AMP	HM1B ELEC 15 SURFAC 42 KER POLES	L 5 E	7 7	W) C	NO	PHASE NOTES: WIRE SIZE	3 PREVIOU	COND SIZE	WIRE L'CHP LEF	4 T SIDE' GND. SIZE	WIRE SIZE	NO	IN BRE VOL 0 LO A	8 AKER TAGE 0 AD (K	0 W) C	MLO 480Y/27 SECT BREA POLES	20 77 ION 2 -	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	BREA AMP	HM1B ELEC 15 SURFAC 42 KER POLES	L 5 E	7 7	W) C	NO 4	PHASE NOTES: WIRE SIZE 12	GND. SIZE 12	COND SIZE 3/4	WIRE COND SIZE 3/4	4 T SIDE' GND. SIZE 12	WIRE SIZE 12	NO 4	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K	0 W) C	MLO 480Y/27 SECT BREA POLES 3	777 FION 2 - KER S AMP 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7 9	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	BREA AMP 20	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E	7 7 DAD (K	W) C	NO 4	PHASE NOTES: WIRE SIZE 12	GND. SIZE 12	COND SIZE 3/4	WIRE COND SIZE 3/4	4 T SIDE' GND. SIZE 12	WIRE SIZE 12	NO 4 2	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K B	0 W) C	MLO 480Y/27 SECT BREA POLES 3	20 777 FION 2 KER S AMP 20 15 15	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7 9 11	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	15 BREA AMP 20 20	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E	7 7 DAD (K	W) C	NO 4 2 2 2	PHASE NOTES: WIRE SIZE 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12	COND SIZE 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12	WIRE SIZE 12 12 12	NO 4 2 2 2	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K B	0 W) C	MLO 480Y/27 SECT BREA POLES 3	20 77 ION 2 - IKER S AMP 20 15 15 15	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24	
CKT NO 1 3 5 7 9 11 13	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	15 BREA AMP 20 20 15 20	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E LC A 3.6	7 7 DAD (K	W) C	NO 4 2 2 2 2 2	PHASE NOTES: WIRE SIZE 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12	COND SIZE 3/4 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12	WIRE SIZE 12 12 12 12 12	NO 4 2 2 2 2 2	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K B	0 W) C	MLO 480Y/27 SECT BREA POLES 3	20 77 ION 2 - IKER S AMP 20 15 15 15	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7 9 11 13 15	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	15 BREA AMP 20 15 20 15	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E LC A 3.6	7 DAD (K B 3.6	W) C	NO 4 2 2 2 2 2 2 2	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12	3 PREVIOU GND. SIZE 12 12 12 12 12	3/4 3/4 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12	WIRE SIZE 12 12 12 12 12	NO 4 2 2 2 2 2	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C	MLO 480Y/27 SECT BREA POLES 3	20 77 ION 2 - IKER S AMP 20 15 15 15	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7 9 11 13 15 17	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1	15 BREA AMP 20 15 20 15	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E LC A 3.6	7 DAD (K B 3.6	W) C 3.6	NO 4 2 2 2 2 2 2 2	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12	3 PREVIOU GND. SIZE 12 12 12 12 12	3/4 3/4 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12	WIRE SIZE 12 12 12 12 12	NO 4 2 2 2 2 2	IN BRE VOL 0 LO A 3.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C	MLO 480Y/27 SECT BREA POLES 3	20 77 TION 2 KER S AMP 20 15 15 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20	
CKT NO 1 3 5 7 9 11 13 15 17 19	PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1	15 BREA AMP 20 15 20 15	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E A 3.6	7 DAD (K B 3.6	W) C 3.6	NO 4 2 2 2 2 2 2 2	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12	3 PREVIOU GND. SIZE 12 12 12 12 12	3/4 3/4 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	IN BRE VOL 0 LO A 3.7 2.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C	MLO 480Y/27 SECT BREA POLES 3	77 ION 2 - IKER S AMP 20 15 15 15 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1	
CKT NO 1 3 5 7 9 11 13 15 17 19 21	PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	15 BREA AMP 20 15 20 15 20	HM1B ELEC 15 GURFAC 42 KER POLES 3	L 5 E A 3.6	7 DAD (K B 3.6 2.7	W) C 3.6	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	IN BRE VOL 0 LO A 3.7 2.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1	20 77 ION 2 - IKER S AMP 20 15 15 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1	
CKT NO 1 3 5 7 9 11 13 15 17 19 21 23	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1	15 BREA AMP 20 15 20 15 20	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E A 3.6	7 DAD (K B 3.6 2.7	W) C 3.6 3.7 2.7	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	IN BRE VOL 0 LO A 3.7 2.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C S 3.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1 1	20 XER S AMP 20 15 15 15 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-24 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2	
CKT NO 1 3 5 7 9 11 13 15 17 19 21 23 25	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8	15 BREA AMP 20 15 20 15 20 20 20	HM1B ELEC 15 SURFAC 42 KER POLES 3	L 5 E A 3.6 3.7	7 DAD (K B 3.6 2.7	W) C 3.6 3.7 2.7	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	0 LO A 3.7 2.7 2.7	8 AKER TAGE 0 AD (K B 3.7	0 W) C S 3.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 77 ION 2 KER S AMP 20 15 15 20 20 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE	
CKT NO 1 3 5 7 9 11 13 15 17 19 21 23 25 27	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-25 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE	15 BREA AMP 20 15 20 15 20 20 20 15	HM1B ELEC 15 SURFAC 42 KER POLES 3 1 1 1 1 1 1 1 1 1 1	L 5 E A 3.6 3.7	7 DAD (K B 3.6 2.7 2.7	W) C 3.6 3.7 2.7	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	0 LO A 3.7 2.7 2.7	8 AKER TAGE 0 AD (K B 3.7 1.2 2.7	0 W) C S 3.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 77 ION 2 KER S AMP 20 15 15 15 20 20 20 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE	
CKT NO 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29	SPARE SIDE TOTAL KW LOAD PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE	15 BREA AMP 20 15 20 15 20 20 15 15	HM1B ELEC 15 SURFAC 42 KER POLES 3 1 1 1 1 1 1 1 1 1 1	L 5 E A 3.6 3.7	7 DAD (K B 3.6 2.7 2.7	W) C 3.6 3.7 2.7	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	0 LO A 3.7 2.7 2.7	8 AKER TAGE 0 AD (K B 3.7 1.2 2.7	0 W) C 3.7 1.5 2.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1	20 ION 2 KER S AMP 20 15 15 15 20 20 20 20 20 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE SPARE	
CKT NO 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31	PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE SPARE	15 BREA AMP 20 15 20 15 20 20 15 15 15	HM1B ELEC 15 SURFAC 42 KER POLES 3 1 1 1 1 1 1 1 1 1	L 5 E A 3.6 3.7	7 DAD (K B 3.6 2.7 2.7	W) C 3.6 3.7 2.7	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	IN BRE VOL 0 LO A 3.7 2.7 2.0	8 AKER TAGE 0 AD (K B 3.7 1.2 2.7	0 W) C 3.7 1.5 2.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1 1	20 KER S AMP 20 15 15 15 20 20 20 20 20 20 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE SPARE SPARE	
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CKT NO 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35	PANEL DESIGNATION LOCATION MOUNTING TOTAL POLES DESCRIPTION HEAT PUMP HP-8 HEAT PUMP HP-21 HEAT PUMP HP-23 HEAT PUMP HP-25 HEAT PUMP HP-27 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE SPARE SPARE SPARE SPARE	15 BREA AMP 20 15 20 15 20 20 15 15 15 15	HM1B ELEC 15 SURFAC 42 KER POLES 3 1 1 1 1 1 1 1 1 1 1 1 1	L 5 E A 3.6 3.7	7 DAD (K B 3.6 2.7 2.0 0.0	W) C 3.6 3.7 2.7 3.0 0.0	NO 4 2 2 2 2 4	PHASE NOTES: WIRE SIZE 12 12 12 12 12 12 12 12 12 12 12 12 12	3 PREVIOUS GND. SIZE 12 12 12 12 12 12 12 12 12	COND SIZE 3/4 3/	WIRE COND SIZE 3/4 3/4 3/4 3/4 3/4 3/4 3/4	4 T SIDE' GND. SIZE 12 12 12 12 12	WIRE SIZE 12 12 12 12 12 12 12	NO 4 2 2 2 4	IN BRE VOL 0 LO A 3.7 2.7 2.0	8 AKER TAGE 0 AD (K B 3.7 1.2 2.7 3.0 0.0	3.7 1.5 2.7	MLO 480Y/27 SECT BREA POLES 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 ION 2 KER S AMP 20 15 15 15 20 20 20 20 20 20 20 20 20 20 20 20 20	SPARE SIDE TOTAL KW LOAD TOTAL KW LOAD DESCRIPTION HEAT PUMP HP-20 HEAT PUMP HP-22 HEAT PUMP HP-24 HEAT PUMP HP-26 CABINET UNIT HEATER CUH-1 WALL HEATER EWH-1 WALL HEATER EWH-2 SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE	

37	SPANE	15		0.0											0.0				20	SPANE	ುಂ
39	SPARE	15	1		0.0											0.0		1	20	SPARE	40
41	SPARE	15	1			0.0											0.0	1	20	SPARE	42
	SIDE TOTAL KW LOAD			11	11	13									11	11	8			SIDE TOTAL KW LOAD	
															•		•	•			
	PANEL DESIGNATION		RP1A	L ##		_		BUS AMP	225A	-	MIN. A.I.C.	X	-	MA	IN BRE	AKER		225A		_	
	LOCATION		ELEC 15	55	_			PHASE	3	_	WIRE	4	_		VOL	TAGE		208Y/12	20	_	
	MOUNTING	S	SURFAC	E	_			NOTES:	# EXISTII	NG ; ## EX	ISTING PAN	ELBOARD	PREVIOU	JSLY TA	GGED	AS 'CP	'. RE-T	AG RE	TAINE	D BRANCH CIRCUITS.	
	TOTAL POLES		42		_				### EXIS	TING CIRC	UIT BREAKI	ER. REUS	SE FOR NE	EW	11	14	14	SECT	ION 2 7	TOTAL KW LOAD	
									BRANCH	CIRCUIT	AS INDICATE	ED.									
СКТ		BREA	KER	LO	AD (K	W)		WIRE	GND.	COND	COND	GND.	WIRE		LO	AD (K	W)	BREA	KER		CK
NO	DESCRIPTION	AMP	POLES	A	В	С	NO	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	NO	Α	В	С	POLES	AMP	DESCRIPTION	NC
1	REC OFFICE 125 ###	20	1	1.2			2	12	12	3/4	3/4	12	12	2	1.0			1	20	REC OFFICE 124 ###	2
3	REC OFFICE 123 ###	20	1		1.0		2	12	12	3/4	#	#	#	#		0.4		1	20	REC STAIR C #	4
5	REC LOBBY #	20	1			0.9	#	#	#	#	#	#	#	#			0.7	1	20	REC LOBBY #	6
7	REC OFFICE 122 ###	20	1	1.0			2	12	12	3/4	3/4	12	12	2	1.0			1	20	REC OFFICE 130 ###	8
9	REC OFFICE 131 ###	20	1		1.0		2	12	12	3/4	3/4	12	12	2		1.0		1	20	REC OFFICE 132 ###	10
11	REC OFFICE 133 ###	20	1			1.0	2	12	12	3/4	3/4	12	12	2			1.0	1	20	REC OFFICE 134 ###	12
13	REC - CORRIDOR ###	20	1	0.5			2	12	12	3/4	3/4	12	12	2	0.7			1	20	REC WORK RM 123/CORR ###	14
15	REC PRES. SUITE/TLT ###	20	1		0.7		2	12	12	3/4	3/4	12	12	2		1.4		1	20	REC OFFICE 144 ###	16
17	REC OFFICE 146 ###	20	1			1.0	2	12	12	3/4	3/4	12	12	2			1.0	1	20	REC OFFICE 146 ###	18
19	REC OFFICE 145 ###	20	1	1.0			2	12	12	3/4	3/4	12	12	2	1.2			1	20	REC PRES. OFFICE 142 ###	20
21	REC CONF. RM 140 ###	20	1		0.9		2	12	12	3/4	3/4	12	12	2		1.2		1	20	REC UC REFRIG 143 ###	22
23	REC COPIER 148 ###	20	1			1.0	2	12	12	3/4	3/4	12	12	2			0.2	1	20	REC BREAKOUT 143 CNTR ###	24
25	REC SHREDDER 148 ###	20	1	0.6			2	12	12	3/4	3/4	12	12	2	0.2			1	20	REC BREAKOUT 143 CNTR ###	26
27	REC COPY 148 ###	20	1		0.4		2	12	12	3/4	3/4	12	12	2		1.9		1	20	REC AV RACK BOARD RM 103 ###	28
29	REC BOARD RM 103 ###	20	1			0.4	2	12	12	3/4	3/4	12	12	2			1.9	1	20	REC AV RACK BOARD RM 103 ###	30
31	REC BOARD RM 103 ###	20	1	1.1			2	12	12	3/4	3/4	12	12	2	1.1			1	20	REC LOBBY 102 ###	32
33	REC OFFICE 105 ###	20	1		1.0		2	12	12	3/4	3/4	12	12	2		1.2		1	20	REC RECEPTION 104 ###	34
35	REC RECEPTION 104 ###	20	1			1.0	2	12	12	3/4	3/4	12	12	2			1.0	1	20	REC COPIER 104 ###	36
37	REC RECEP 104/FILES 107 ###	20	1	1.2			2	12	12	3/4	3/4	12	12	2	1.2			1	20	REC OFFICE 106 ###	38
39	FLOOR BOX - 103 ###	20	1		1.0		2	12	12	3/4	3/4	12	12	2		0.6		1	20	PROJECTOR LIFTS - 103 ###	40
41	PROJECTORS - 103 ###	20	1			1.0	2	12	12	3/4	3/4	12	12	2			0.6	1	20	MOTORIZED SCREEN - 103 ###	42
	SIDE TOTAL KW LOAD		<u> </u>	7	6	6								<u> </u>	7	8	6			SIDE TOTAL KW LOAD	



AL ADMINISTATION BUIL PHASE 3 -A HALL RENOVATIONS CENTRAL





02/08/2013

JGB

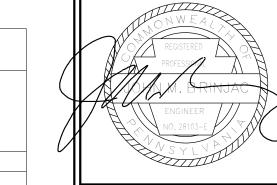
CHECKED\APPROVED BY MKS BRINJAC PROJ. NUMBER

DRAWING NUMBER

PANEL SCHEDULES

DRAWN BY

(UH)						UNIT HEAT	ΓER SC	HEDULI	E (WATE	ER)						
			AIR					WATER			MOTOR			MOUNTING		
TAG	LOCATION	TYPE	AIRFLOW	EAT	LAT	CAPACITY		INLET	LEAVING					HEIGHT	BASIS	REMARKS
								WATER	WATER	RPM	HP	V	PH	AFF	OF	
			(CFM)	(F)	(F)	(MBH)	GPM	(F)	(F)					(FT)	DESIGN	
UH-1	PENHOUSE MECHANICAL ROOM	HORIZONTAL	500	60	104	16	2.4	180	160	1,600	1/25	115	1	9	REZNOR WS 22/33	

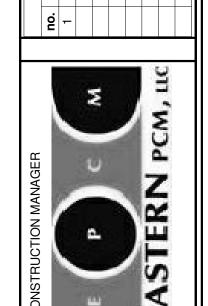


EF)				EXHAL	JST FAN S	SCHED	ULE					
									MOTOR			
TAG	SYSTEM	LOCATION	TYPE	CFM	TSP.	FAN	CONTROL				BASIS	REMARKS
						RPM		HP	VOLT	PH	OF	
					(IN. WG)						DESIGN	
EF-1	GENERAL EXHAUST	ROOF	CENTRIFUGAL - DOWNBLAST	3,285	2.00	1,385	ATC	2	460	3	GREENHECK GB-200HP	SEE NOTE 1
EF-2	PENTHOUSE MECHANICAL ROOM	ROOF	CENTRIFUGAL - DOWNBLAST	7,400	0.50	673	ATC	2	460	3	GREENHECK GB-260	SEE NOTE 1

CUH)							CABINET	JNIT HEATER			
			FAN CA	PACITY	A	IR		ELECTRIC			
SYMBOL	LOCATION	TYPE	CFM	HP	EAT	LAT	CAPACITY (KW)	VOLTAGE/PH	FLA	BASIS OF DESIGN	REMARKS
CUH-1	VESITBULE - 158	WALL MOUNTED	500	1/8	68	118	8	480/3	11	QMARK CU945	

								BASIS	
TAG	SERVICE	CFM	NECK	SIZE	MAX.	MAX.	PATTERN	OF	REMARKS
		RANGE	DIA.	FACE	PD	NOISE		DESIGN	
Α	SQUARE SUPPLY	[CFM/LF] 50 - 120	(IN) 5	(IN) 12x12	(IN. WG) 0.09	(NC) 25	4-WAY	TITUS	ALL PATTERN SHALL BE 4-WAY
^	DIFFUSER	30 - 120	3	12.12	0.09	25	4-V/A1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	INLESS OTHERWISE NOTED
	31 332.1	125 - 210	6	24x24	0.07	25		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
		215 - 320	8	24x24	0.08	25			
		325 - 500	12	24x24	0.08	25			
		700 - 900	14	24x24	0.12	25			
		700 000		21/21	02				
В	RETURN / EXHAUST	0-125	6x6	6x6	0.08	20		TITUS	
	REGISTER							350FL	
		130-225	8x8	8x8	0.12	20			
		230-350	10x10	10x10	0.12	20			
		230-330	10010	10010	0.12	20			
		355-525	12x12	12x12	0.08	20			
		530-1050	18x18	18x18	0.07	20			
		1055-2000	24x24	24x24	0.07	20			
С	SIDE WALL DIFFUSER	75-150	6x6	6x6	0.12	24	0 DEGREE	TITUS	
-	1 2 2 2						DEFLECTION	300RL	
		300-410	12x8	12x8	0.09	25			

(EWH)			WALL HEATER	SCHEDULI	=		
TAG	MOUNTING	TYPE	CAPACITY	POWER	AMPERAGE	BASIS OF DESIGN	REMARKS
		. –	(KW)	(V/PH)	(AMPS)	- 200	
EWH-1	RECESSED	ELECTRIC	2	277/1	7.2	QMARK AWH 4407	
EWH-2	RECESSED	ELECTRIC	3	277/1	10.8	QMARK AWH 4307	



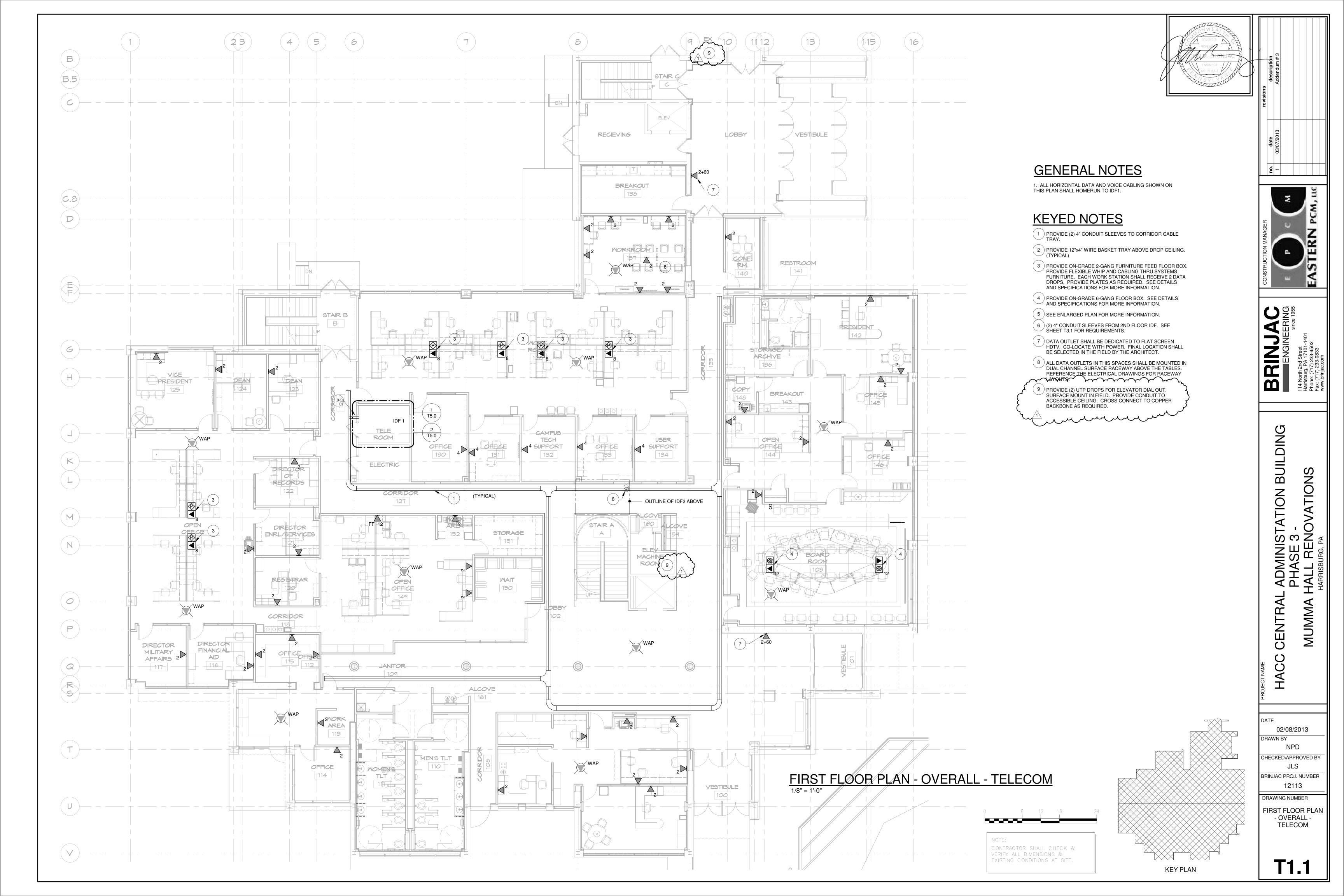


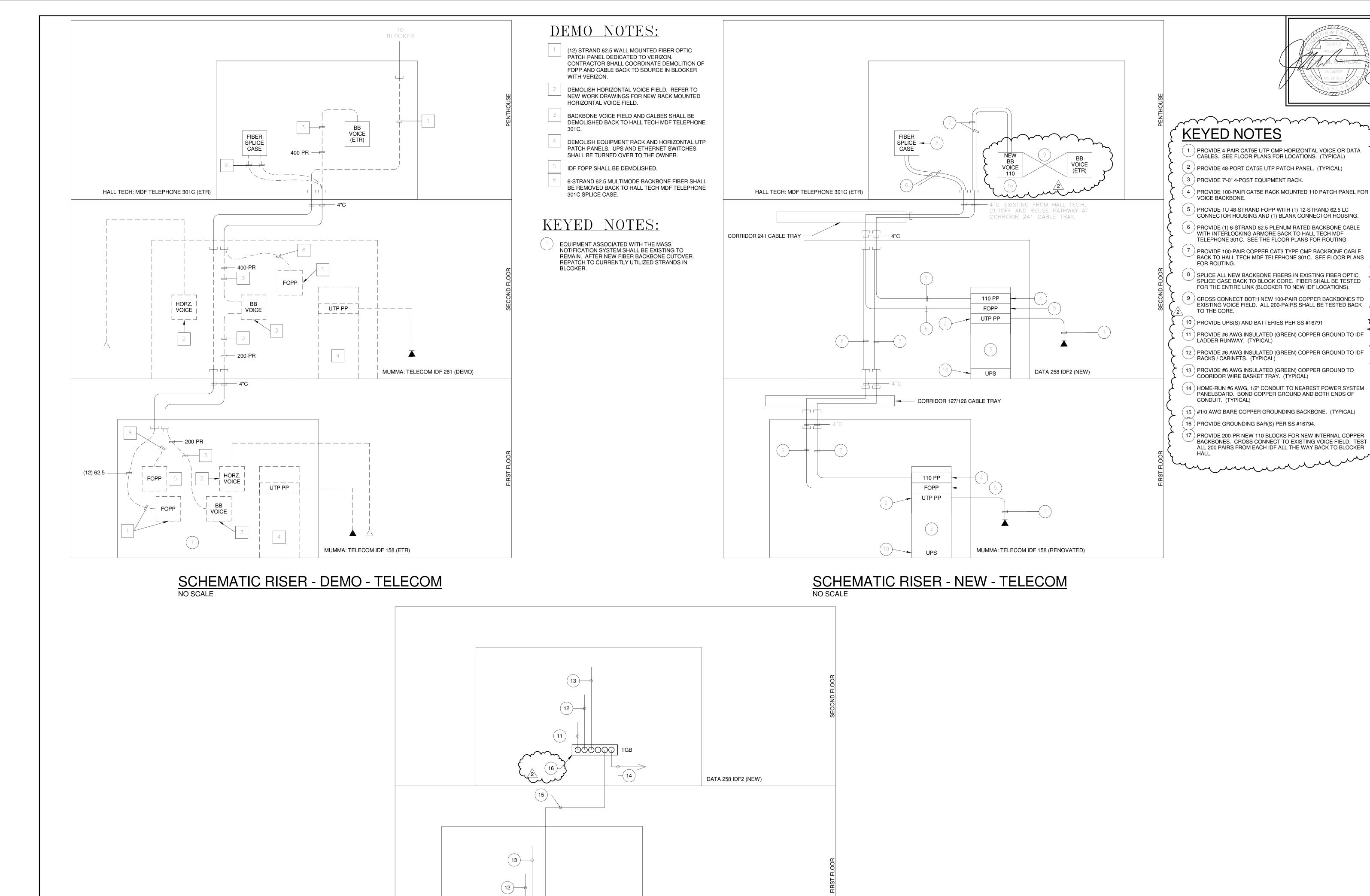
02/08/2013

CHECKED\APPROVED BY

NAR

BRINJAC PROJ. NUMBER





MUMMA: TELECOM IDF 158 (RENOVATED)

11)——

ООООО ТСВ

GROUNDING SCHEMATIC RISER - NEW - TELECOM

T6.0

02/08/2013

CHECKED\APPROVED BY

BRINJAC PROJ. NUMBER

SCHEMATIC RISERS - TELECOM

DRAWING NUMBER

AL ADMINISTATION BUIL
PHASE 3 A HALL RENOVATIONS
HARBISBURG, PA

CENTRAL

MUMMA

<u>2</u>	
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PARTIAL LARGE SCALE SECOND FLOOR PATTERN PLAN - SECTION A

SCALE: 1/8" = 1'-0"

(REF. TO DWG. A7.12)

	Revisions									
No.	Date	Description								
1	2/22/13	ADDENDUM #1								
2	3/7/13	ADDENDUM #3								

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK. THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT.

Murray Associates Architects, P.C.
CONSULTANT: CONSTRUCTION
MANAGER

EASTERN PCM, LLC

645 N. 12TH STREET SUITE 200 LEMOYNE, PA 17043 717-233-3816

CONSULTANT: STRUCTURAL ENGINEER

MHITNEY, BAILEY, COX & MAGNANI, LLC

ONE STERLING PLACE 100 STERLING PARKMAY SUITE 108 MECHANICSBURG, PA 17050 717-691-4708



ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING

HARRISBURG, PA

PARTIAL LARGE SCALE SECOND FLOOR PATTERN PLAN - SECTION A

CONSTRUCTION DOCUMENTS

DRAWN BY: TAB CHECKED BY:

DATE

FEBRUARY 8, 2013

PROJECT NUMBER:

3395

DRAWING NUMBER:

SKA-14

PHASE 3

DETAIL REFERENCE MANUAL INDEX

NOTES: N-O THRU N-4

LEGENDS: L-O THRU L-5

COLUMN ENCLOSURE DETAILS: CE-O THRU CE-71

CEILING DETAILS: CDT-0 THRU CDT-62

DOOR SCHEDULE: DS-0 THRU DS-4

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MILLWORK DETAILS: MWD-0 THRU MWD-56

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ADDENDUM #1 - FEBRUARY 22, 2013

ADDENDUM #2 - MARCH 1, 2013

ADDENDUM #3 - MARCH 7, 2013

INDEX-1

	DEMOLITION KEYNOTES
NUMBER	DESCRIPTION

30	REMOVE EXISTING HARDWOOD STRIP PANELING.
31	REMOVE EXISTING MOOD PANELING.
32	REMOVE EXISTING RAILING AND BRACKETS.
33	REMOVE EXISTING GLASS SMOKE CURTAIN. STORE FOR LATER RE-INSTALLATION.
34	REMOVE EXISTING WOOD PANELING FROM FACE OF GYPSUM BOARD SOFFIT.
35	REMOVE EXISTING GYPSUM BOARD SOFFIT.
36	REMOVE ONE LAYER OF PLYWOOD FROM EXISTING 2 LAYERS ON RADIUS WALL AROUND STAIR.
37	FOR ALL SAW CUTTING OF SLABS FOR NEW ELECTRICAL /PLUMBING/DATA LINES REFER TO ELECTRICAL, PLUMBING AND POWER DRAWINGS.
38	REMOVE EXISTING SLAB AS REQUIRED FOR NEW SHOWER. SEE MECHANICAL, ELECTRIC AND PLUMBING DRAWINGS FOR ADDITIONAL SAW CUTTING AND FLOOR PENETRATIONS.
39	REMOVE PORTION OF EXISTING WALL FOR NEW DOOR OPENING.
40	REMOVE PORTION OF EXISTING METAL DECK, SUBSTRATE BOARD, INSULATION, COVER BOARD AND MEMBRANE ROOFING FOR INSTALLATION OF NEW MECHANICAL UNIT.
41	REMOVE PORTION OF EXISTING METAL DECK, SUBSTRATE BOARD, INSULATION, COVER BOARD AND MEMBRANE ROOFING FOR INSTALLATION OF NEW REFREGERANT LINES.
42	REMOVE PORTION OF EXISTING TEMPORARY SEALED MECHANICAL CURB FOR NEW MECHANICAL UNIT.
43	REMOVE EXISTING WALL EXPANSION JOINT SYSTEM. MODIFY CONCRETE AS REQUIRED FOR INSTALLATION OF NEW EXPANSION JOINT.
44	REMOVE EXISTING WALL EXPANSION JOINT SYSTEM.

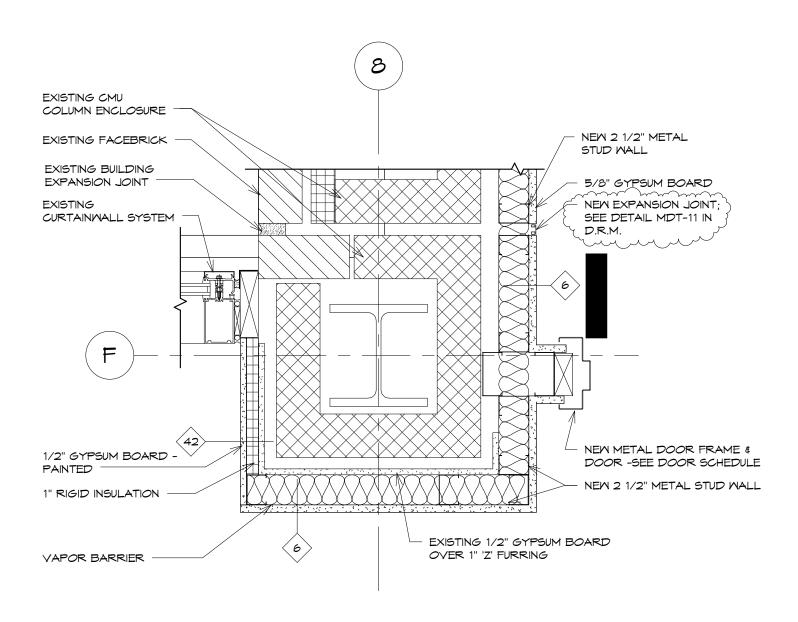


PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C. ADDENDUM #1 - FEBRUARY 22, 2013

ADDENDUM #3 - MARCH 7, 2013

LEGEND

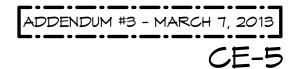
- 1. D.R.M. REFERS TO DETAIL REFERENCE MANUAL
- 2. MDT REFERS TO MISCELLANEOUS DETAILS IN D.R.M.
- 3. FD REFERS TO FLOOR DETAILS IN D.R.M.
- 4. CDT REFERS TO CEILING DETAILS IN D.R.M.
- 5. DD REFERS TO DOOR AND HOLLOW METAL DETAILS IN D.R.M.
- 6. MMD REFERS TO MILLWORK DETAILS IN D.R.M.
- 7. CE REFERS TO COLUMN ENCLOSURES IN D.R.M.
- 8. EL REFERS TO ELEVATOR DETAILS IN D.R.M.
- 9. STD REFERS TO STAIR DETAILS IN D.R.M.
- 10. FE-X REFERS TO FRAME ELEVATIONS ON SHEET A8.1.
- 11. (101/1) DENOTES DOOR SEE DOOR SCHEDULE AND ELEVATIONS (DE) IN D.R.M.
- 12. X REFERS TO PARTITION TYPES (PT) IN D.R.M.
- 13. (A6.X) X REFERS TO INTERIOR ELEVATIONS ON DRAWING A6.1 THRU A6.6.
- 14. SEMI-RECESSED FIRE EXTINGUISHER CABINET. SEE MDT-1 IN D.R.M.
- 15. X REFERS TO DEMOLITION KEYNOTE. SEE N-2 IN D.R.M.
- 16. (X) REFERS TO NEW CONSTRUCTION KEYNOTE. SEE L-2 IN D.R.M.
- 17. ALL DIMENSIONS ARE TO THE FACE OF GYPSUM BOARD UNLESS OTHERWISE NOTED.
- 18. "CJ" REFERS TO CONTROL JOINT. SEE MDT-2 IN D.R.M.
- 19. "EJ" REFERS TO EXPANSION JOINT. SEE MDT-10 AND MDT-11 IN D.R.M.

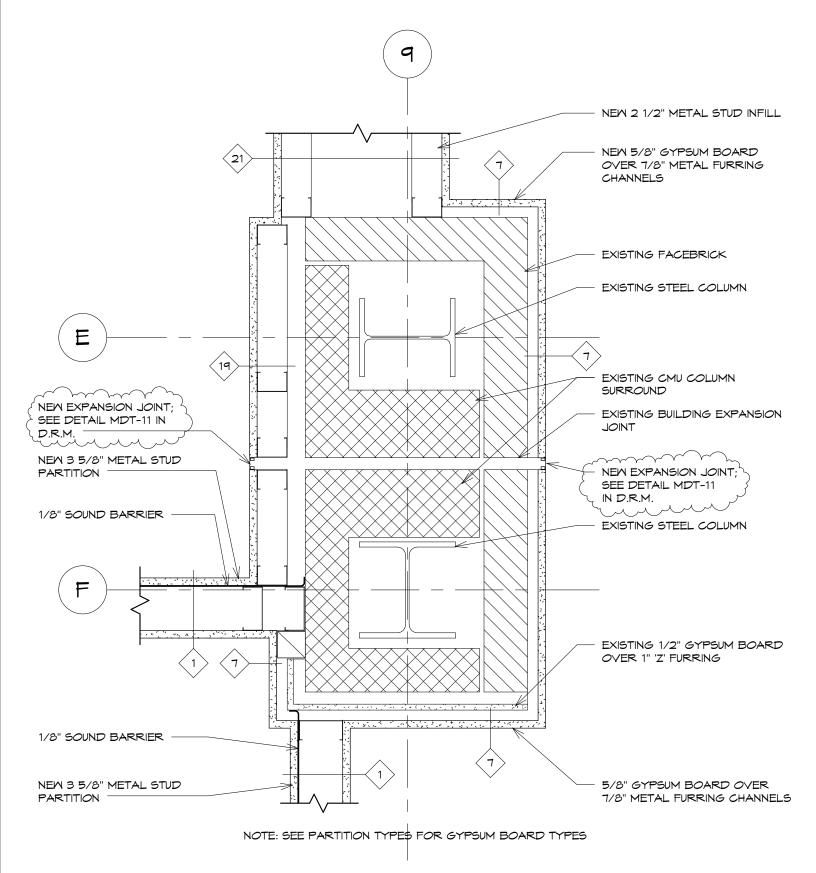


NOTE: SEE PARTITION TYPES FOR GYPSUM BOARD TYPES

COLUMN ENCLOSURE DETAILS

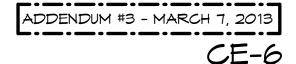
SCALE: 1 1/2" = 1'-0"

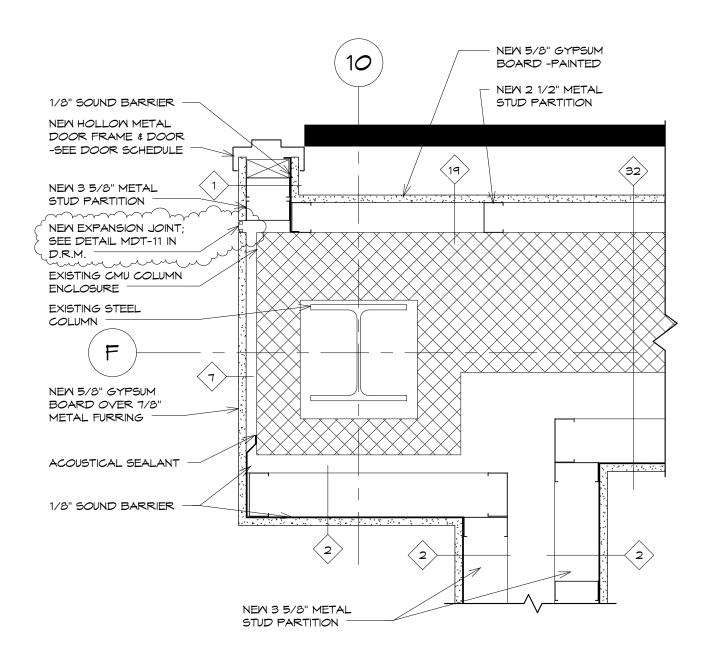




COLUMN ENCLOSURE DETAILS

SCALE: 1 1/2" = 1'-0"





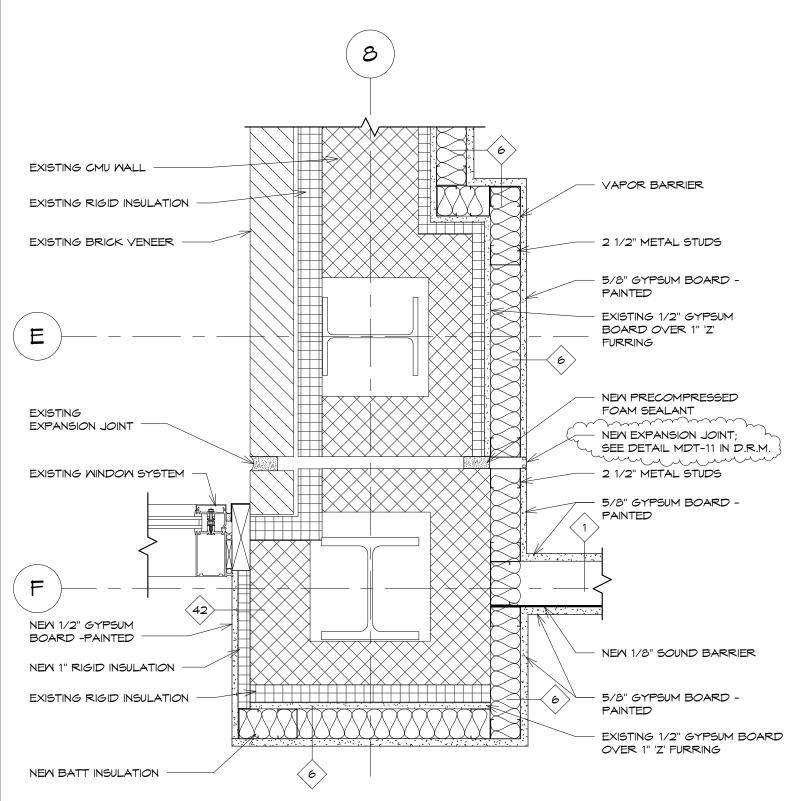
NOTE: SEE PARTITION TYPES FOR GYPSUM BOARD TYPES

COLUMN ENCLOSURE DETAILS

SCALE: 1 1/2" = 1'-0"

PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C. ADDENDUM #2 - MARCH 1, 2013

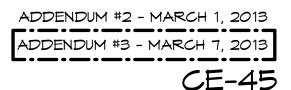
ADDENDUM #3 - MARCH 7, 2013

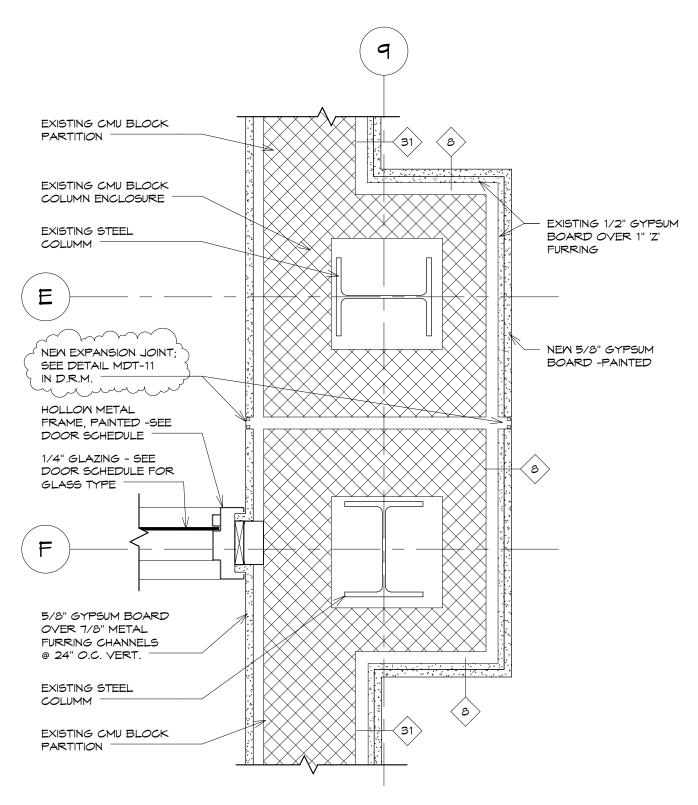


NOTE: SEE PARTITION TYPES FOR GYPSUM BOARD TYPES

COLUMN ENCLOSURE DETAILS

SCALE: 1 1/2" = 1'-0"

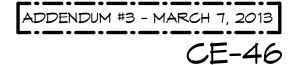


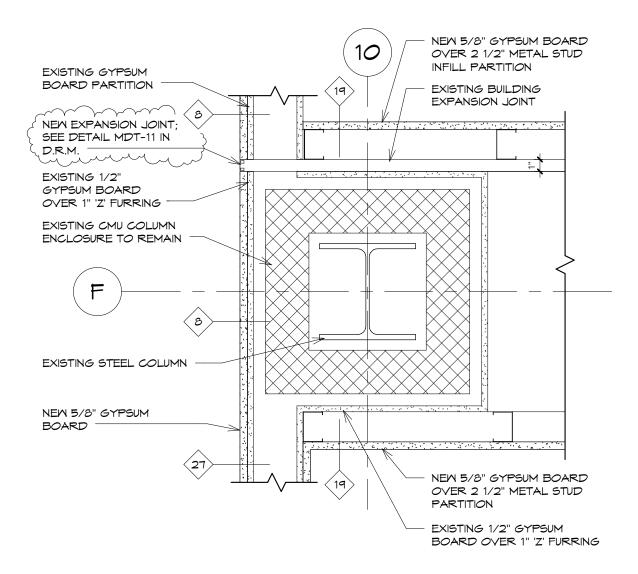


NOTE: SEE PARTITION TYPES FOR GYPSUM BOARD TYPES

COLUMN ENCLOSURE DETAILS

SCALE: 1 1/2" = 1'-0"

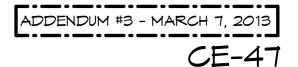


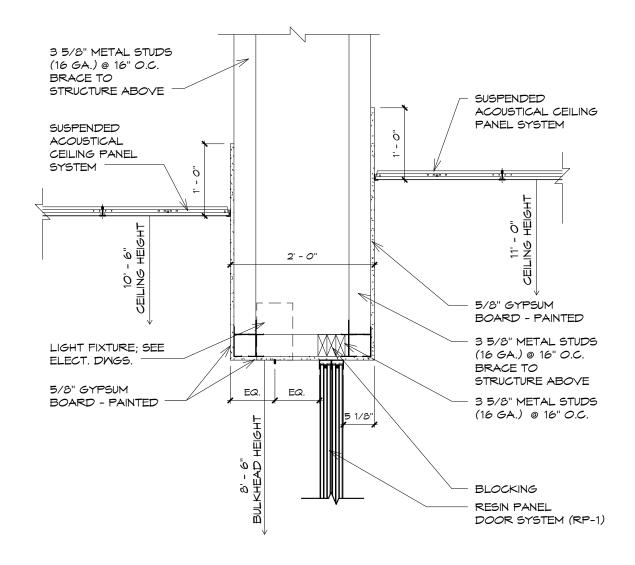


NOTE: SEE PARTITION TYPES FOR GYPSUM BOARD TYPES

COLUMN ENCLOSURE DETAILS

SCALE: 1 1/2" = 1'-0"

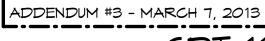




CEILING DETAIL

SCALE: 3/4" = 1'-0"

PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C.

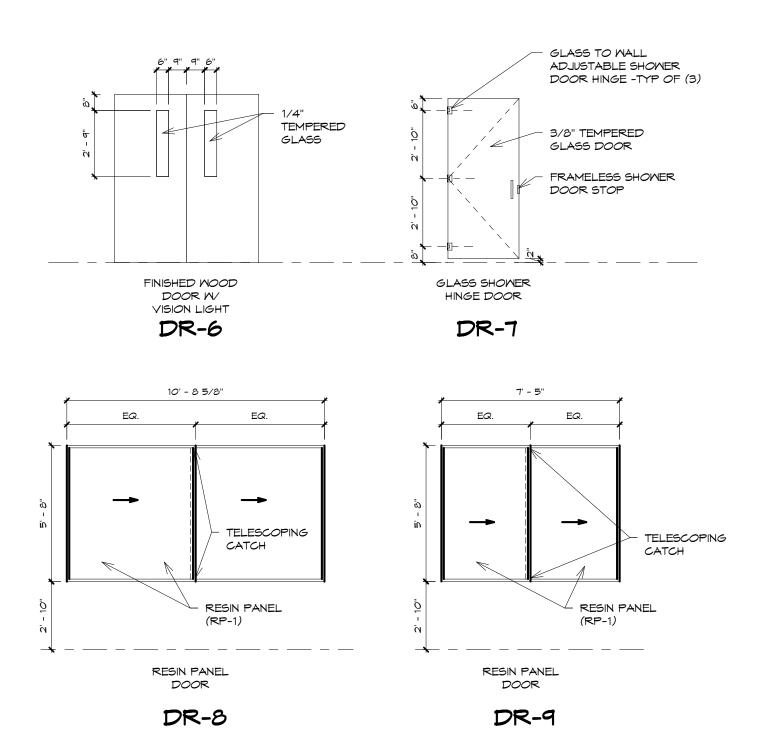


CDT-11

				DOOR SC	HEDULE	- ALTE	DOOR SCHEDULE - ALTERATIONS TO HACC	0 ± ₹	C - 3395					
Ω ΘΟ #	ROOM NAME	SIZE	DOOR MAT.	DOOR FINISH	DOOR ELEV	FRAME MAT.	FRAME F	FRAME ELEV	HEAD	JAMB	SILL	LABEL	HDN.	COMMENTS
	VESTIBULE	ETR	ETR	ETR	ı	ETR	ETR	ı	ı	CE-35	ı	ı	_	CARD READER
100/2	VESTIBULE	ETR	瓦瓦	ETR	ı	ET N	ET R	ı	ı	ı	ı	ı	9	
100/3	VESTIBULE	ETR	ETR	ETR	ı	ETR	ETR	1	-	DD-32	ı	-	И	
	VESTIBULE	ETR	团队	ETR	ı	ETA	ETA	ı	ı	ı	ı	ı	И	
101/1	VESTIBULE	ETR	ETR	ETR	-	ETR	ETR	ı	1	CE-28	ı	ı	И	
103/1	BOARD ROOM	3' O'' X 1' O'' X 13/4"	MOOD	PLAM-1	DR-2	Σ	P-18	FR-2	DD-2	DD-3,6	ı	ı	w	CARD READER
1/401	RECEPTION	3' O" X 7' O" X 13/4"	MOOD	PLAM-1	DR-2	Σ	P-18	FR-2	DD-2	DD-3,6	ı	1	4	CARD READER
104/2	RECEPTION	Pocket Reception Security Door	ı	м 1-97	DR-8	ı	1	1	CDT-11	DD-44	MDT-	ı	w	
104/3	RECEPTION	Pocket Reception Security Door	ı	ът С	Д Р.	ı	ı	ı	CDT-11	DD-44-	Δ 7 7 22	ı	w	
105/1	VICE PRESIDENT OFFICE	3. O' X 7. O' X 13/4"	Μ Ο Ο Ο Ο	PLAM-1	DR-2	Σ	P-18	FR-57	DD-2	DD-3,6	ı	ı	Q	
106/1	OFFICE	3' O' X 1' O' X 1 3/4" MOOD	NOOD	PLAM-1	DR-2	Σ	P-18	₽-7 4-4	DD-7	DD-3,6	1		٢	
1/901	LANITOR	3 'O' × 1' O''' × 1 3/4" MOOD	MOOD	PLAM-1	DR-1	Σ	P-18	FR-1	DD-2	DD-3	1	1	ω	
170/1	MEN'S TLT	3 'O' × 1' O''' × 13/4"	MOOD	PLAM-1	DR-1	Σ	P-18	FR-1	DD-2	6-00	1		5	
111/1	MOMEN'S TLT	3 'O' × 7' O"' × 1 3/4" MOOD	MOOD	PLAM-1	DR-1	Σ	P-18	FR-1	DD-2	DD-3	ı	1	5	
112/1	OFFICE	3' O" X 7' O" X 1 3/4" MOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-2	DD-2	DD-3,6	ı	ı	<u>6</u>	CARD READER
114/1	OFFICE	3' O" X 7' O" X 1 3/4"	MOOD	PLAM-1	DR-2	Σ	P-18	FR-1	DD-2	DD-3	ı	-	σ	
116/1	DIRECTOR FINANCIAL AID	3' 0" X 13/4" WOOD	NOOD	PLAM-1	DR-2	Σ	P-18	FR-4	DD-2	DD-3,6	I	ı	۲	
1/7/1	DIRECTOR MILITARY AFFAIRS	3, 0" × 7' 0" × 13/4"	000M	PLAM-1	DR-2	Σ	P-18	FR-4	DD-2	9'6-00	ı	ı	a _	
119/1	OPEN OFFICE	3' O" X 7' O" X 1 3/4" MOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-1	DD-2	9'6-00	ı	1	ਹ	CARD READER
120/1	REGISTRAR	O " \times 7'	MOOD	PLAM-1	DR-2	Σ	P-18	FR-1	DD-2	DD-3	ı	1	7	
121/1	DIRECTOR ENRL/SERVICES	3' 0" X 13/4" WOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-4	DD-2	DD-3,6	ı	ı	۲	
122/1	DIRECTOR OF RECORDS	ω ν τ΄ ν "ο τ΄ × "ο ε ΔΟΟΟΝ "	NOOD	PLAM-1	DR-2	Σ	₽ 6-1	₽ 4-7	DD-7	DD-3,6	ı	ı	۲	
123/1	DEAN	3' 0" X 7' 0" X 1 3/4" WOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-4	DD-2	DD-3,6	ı	1	7	
124/1	DEAN	3' 0" X 7' 0" X 1 3/4" WOOD	NOOD	PLAM-1	DR-2	Σ	P-18	₽-77 4-4	DD-7	DD-3,6	ı	ı	٢	
125/1	VICE PRESIDENT	3' 0" X 7' 0" X 1 3/4" WOOD	NOOD	PLAM-1	DR-2	Σ	P-18	FR-5	DD-7	DD-3,6	ı	ı	ø	
128/1	WORK ROOM	3' O" X 7' O" X 1 3/4" MOOD	MOOD	PLAM-1	DR-2	Σ	P-18		DD-2	9'6-00	ı	ı	11	CARD READER
128/2	MORK ROOM	3' O' X T' O' X 1 3/4" MOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-2	DD-18 I	DD-15,16	ı	ı	<u>5</u>	CARD READER
130/1	OFFICE	3' O" X 7' O" X 1 3/4" MOOD	NOOD	PLAM-1	DR-2	Σ			DD-7	DD-3,6	ı	ı	o	
131/1	OFFICE	, X	Λ Ο Ο Ο	PLAM-1	DR-2	Σ			DD-7	DD-3,6	ı	ı	٢	
132/1	CAMPUS TECH SUPPORT	3. 0" × 1" × 13/4" MOOD	Λ Ο Ο	PLAM-1	7R-2	Σ	₽ 6	₽ 4-77 4-	DD-7	DD-3,6	ı	ı	٢	
133/1	OFFICE	3' 0" X 7' 0" X 1 3/4"	MOOD	PLAM-1	DR-2	Σ	P-18		DD-2	DD-3,6	ı	1	7	
134/1	USER SUPPORT	3' 0" X 7' 0" X 1 3/4" MOOD	MOOD	PLAM-1	DR-2	Σ	P-18	FR-3	DD-2	9'6-00	ı	1	٢	

ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING / FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C. PHASE 3 - CONSTRUCTION DOCUMENTS

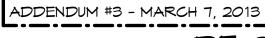
ADDENDUM #3 - MARCH 7, 2013



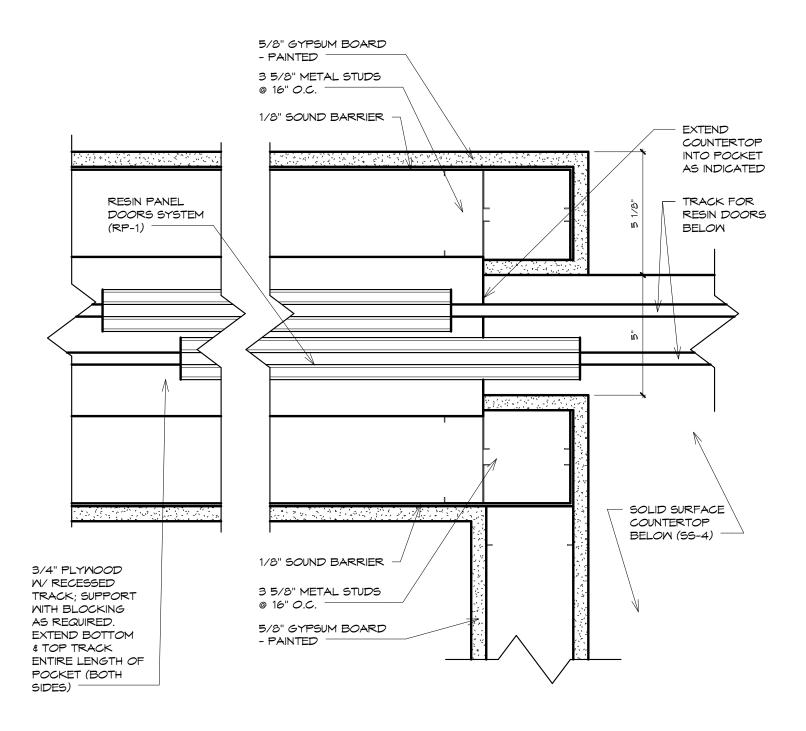
DOOR ELEVATIONS

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

PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C.



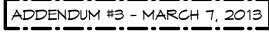
DE-2



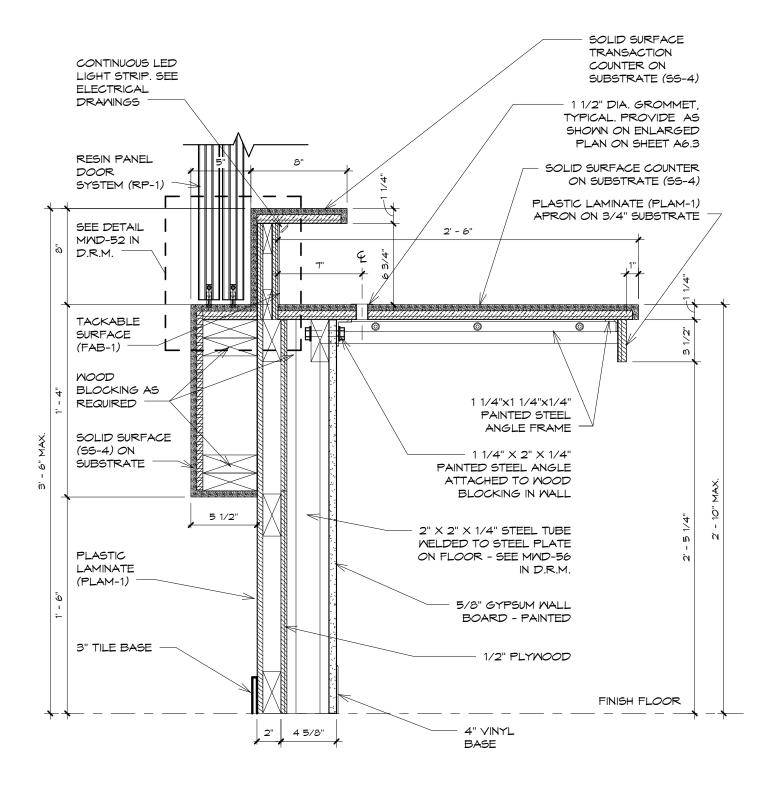
DOOR DETAIL

SCALE: 3" = 1'-0"

PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C.



DD-44



SCALE: 1 1/2" = 1'-0"



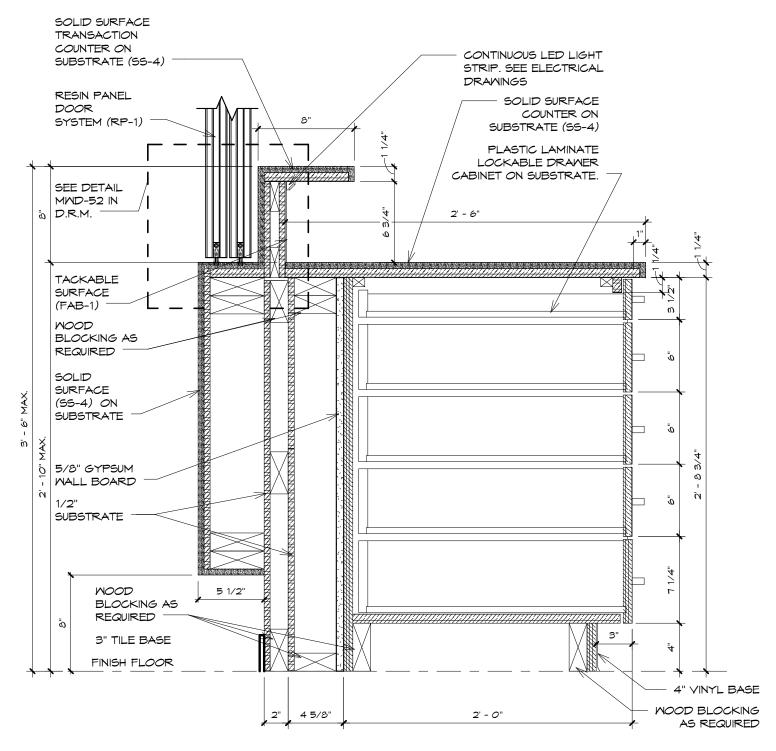
NOTE: ADHERE PLASTIC LAMINATE TO ALL EXPOSED SURFACES.

REQUIRED

MILLMORK DETAILS

SCALE: 1 1/2" = 1'-0"

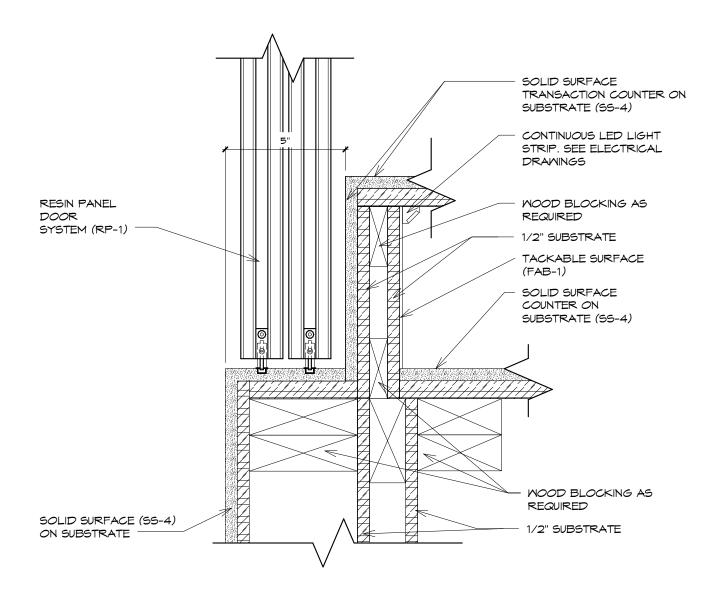




NOTE: ADHERE PLASTIC LAMINATE TO ALL EXPOSED SURFACES

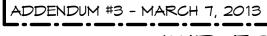
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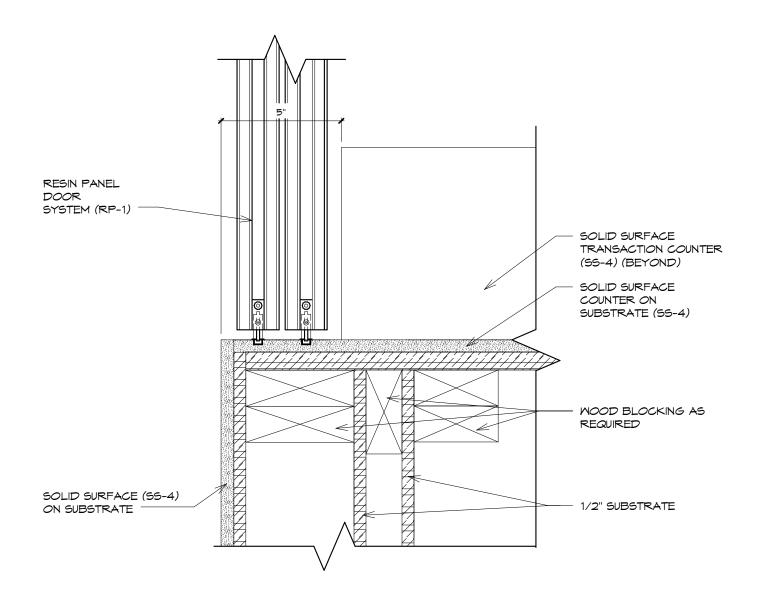


SCALE: 3" = 1'-0"

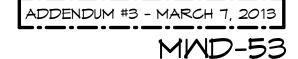
PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C.

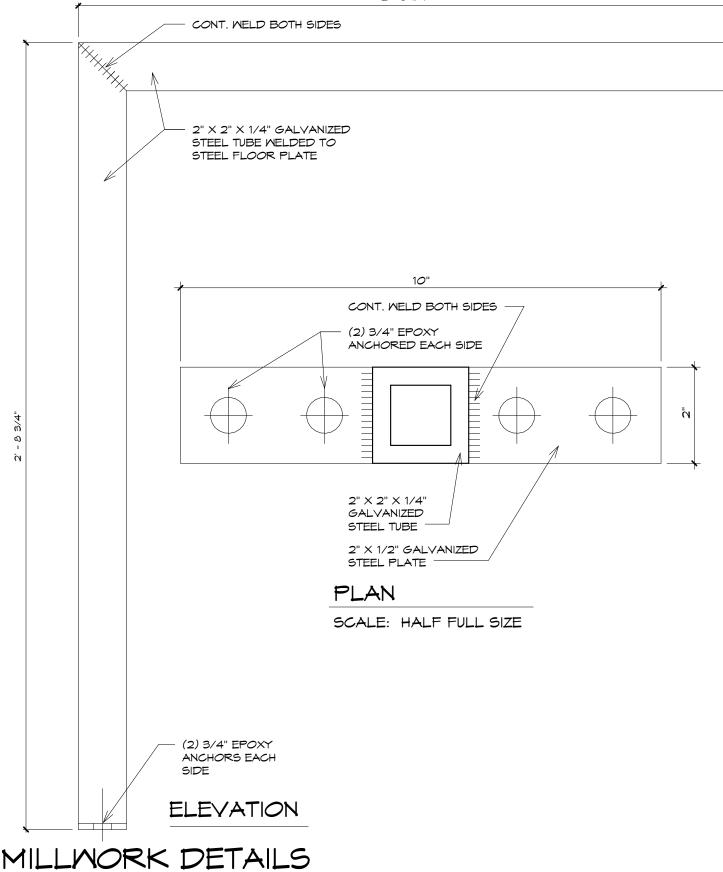


MMD-52



SCALE: 3" = 1'-0"



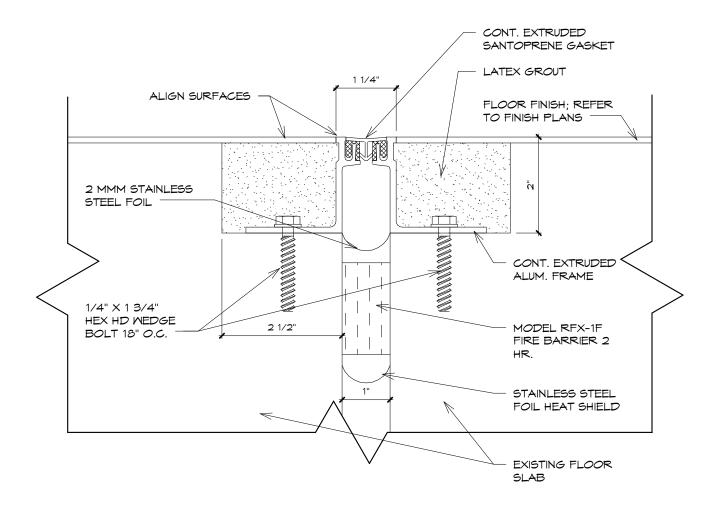


SCALE: 3" = 1'-0"

PHASE 3 - CONSTRUCTION DOCUMENTS 3395/ ALTERATIONS TO HACC TED LICK ADMINISTRATION BUILDING/ FEBRUARY 8, 2013 MURRAY ASSOCIATES ARCHITECTS, P.C.

ADDENDUM #3 - MARCH 7, 2013

MWD-56

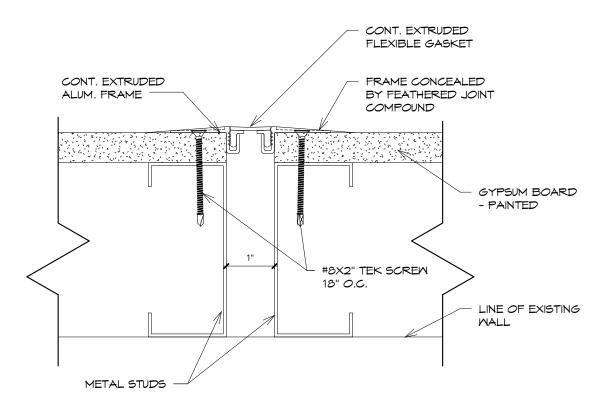


NOTE: MANUFACTURER: CONSTRUCTION SPECIALTIES; MODEL NUMBER: GFT-100 W/ FIRE BARRIER (BASIS OF DESIGN OR EQUAL). INSTALL PER MANUFACTURER'S INSTRUCTIONS. COLOR TO BE SELECTED FROM FULL RANGE OF COLORS.

FLOOR EXPANSION JOINT

SCALE: 6" = 1'-0"

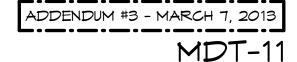


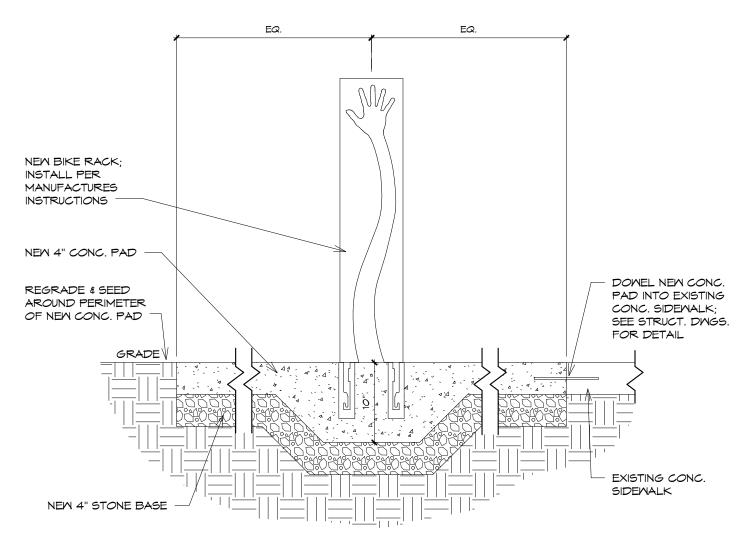


NOTE: MANUFACTURER: CONSTRUCTION SPECIALTIES; MODEL NUMBER: FWF-100 (BASIS OF DESIGN OR EQUAL). INSTALL PER MANUFACTURER'S INSTRUCTIONS. COLOR TO BE SELECTED FROM FULL RANGE OF COLORS.

MALL EXPANSION JOINT

SCALE: 6" = 1'-0"





NOTE: REMOVE EXISTING LAWN, TOPSOIL AND SUB-BASE AS REQUIRED FOR INSTALLATION OF NEW CONCRETE PAD.

BIKERACK DETAIL

SCALE: 1" = 1'-0"

