

RENOVATION OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

Cape Fear Community College Wilmington, North Carolina SCO #17-18154-01A; NCCCS #2352 BMG Project No. 2018023.00

The following items supplement, change, delete or add to the Construction Documents as though repeated in full therein. All general conditions, special conditions, etc., as originally specified shall apply to these items.

1. REQUESTS FOR INFORMATION

- a. The requests for information (RFI's) deadline, 10:00 am EST, Wednesday, September 2, 2020, has passed. No further questions will be considered.
- b. The requests for substitutions deadline, 10:00 am EST, Wednesday, September 2, 2020, has passed. No further substitutions will be considered.
- c. Formal RFI and Requests for Substitutions responses for all questions received prior to the deadline are noted below.

BID RFI 001

a. Can copper pro-press joints be used in lieu of copper sweat joints? **Response: Pro-press joints are acceptable.**

BID RFI's 002 & 003 - not used

BID RFI 004

a. Could you advise if this is a reroof?

Response: While some incidental roof work and/or patching may be required to accommodate new mechanical equipment and penetrations, the existing roof is slated to remain.

BID RFI 005

a. There is a specification section for Horizontal Louver Blinds, but we have not been able to locate on the plans were the blinds are required. Can you provide clarification?

Response: This spec section has been deleted. Existing blinds will remain, the scope will not include new blinds.

BID RFI 006

a. The Installer Qualifications listed in spec section 93013 for ceramic tile limits the number of tile contractors able to bid this project. I have only been able to locate three contractors in North Carolina, South Carolina and Virginia who are qualified, and they may not be willing to travel to Wilmington for this project. Can this qualification be revised?

Response: As this is a state project, higher quality expectations are normal. The qualification cannot be revised.

ADDENDUM NO. 2

RENOVATION OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

2018023.00

BID RFI 007

a. What tile is to be provided behind the drinking fountains? (13 / A402).
 Response: CT-4 has been added to the drawings and specifications for use behind the drinking fountains.

BID RFI 008

a. PFT-1 – Specifications indicate this tile to be 24 by 48. The Finish Schedule of the drawings indicate this tile to be 18 by 18. Please Clarify.

Response: Specification shall be clarified to match the 18x18 size noted on the finish schedule.

BID RFI 009

a. Note #11 on the Finish Schedule Legend indicates to "Remove damaged portions of quarry tile wall base and replace with new tile to match existing." This is very vague and up to interpretation as what would need to be replaced. Can we include an allowance amount with a unit price to add or delete quantity of tile base to be replaced?

Response: Note 11 has been clarified. We observed approximately 25 linear feet of damaged tile wall base to be replaced.

BID RFI 010

a. Is it possible to post pone the bid date by one week? We have several projects bidding the same week.

Response: The bid date will not be extended at this time.

BID RFI 011

a. Sheet S001, under the notes applying to structural steel, we have notes calling for steel to be hot dipped galvanized and also, primed and painted. Can you clarify which is correct?

Response: Structural Steel Note #5: "...hot-dipped galvanized" shall be clarified to be "prime coated". All steel shall be primed and coated.

2. PROJECT MANUAL

The following specification(s) have been added or revised and are attached to this addendum in PDF format:

- a. Section 012100: Paragraph 3.3 Schedule of Allowances Item A: Replace \$350.00 with \$4,260.00
- b. Section 093013: Paragraph 2.4 Tile Products, Types Item A, Line 1: Replace "18x24 inches" with "18x18 inches."
- c. Section 093013: Paragraph 2.4 Tile Products, Types Item D. Porcelain Wall Tile (CT-4) has been added
- d. Section 122113: Horizontal Louver Blinds Delete entire section
- e. Section 260519: Paragraph 3.2 Preparation

No change. Bidders are strongly encouraged to review the requirements related to maintaining data center operation during construction.

ADDENDUM NO. 2

RENOVATION OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

2018023.00

3. DRAWINGS

The following drawing(s) have been added or revised and are attached to this addendum in PDF format:

- a. AD101A, AD102, AD103, AD104 clarified the scope related to horizontal louver blinds. Clarified the existing condition at the second floor storefront.
- b. A301, A301A, A302, A303, A304, A402 clarified extent of tile wall base to be replaced. Added CT-4 to finish materials legend and clarified tile at drinking fountains.
- c. A102, A801, A803 door 200 has been added.
- d. A202 added a soffit at existing clerestory windows.
- e. A502 clarified new/existing stair rail components.
- f. A701 clarified detail 9. Added new soffit detail at clerestory.
- g. E003 Revised service conductors.
- h. E004 Revised service conductors.
- i. E004.1 Revised Detail 3/E004.1.
- j. E005 Added Elevator Shunt Trip Supervision Details 4 and 5.
- k. E009.2 Revised Panel Schedules "2N1" and "2LS".
- I. E009.3 Revised Panel Schedule "2S3".
- m. E012 Revised Functional Fire Alarm Riser Diagram.
- n. E013 Added fixture Types L1E L2E and L11E.
- o. E106 Revised service conductors. Added Elevator Shunt Trip Relays Enclosure.
- p. E106A Added Elevator Shunt Trip Relays Enclosure.
- g. E116 Deleted Type "E" fixture in Rooms 212, 220, 227 and 230. Deleted one Type "L2" fixture in Rooms 212, 216, 220, 227 and 230. Added one Type "L2E" fixture in Rooms 212, 216, 220, 227 and 230.
- r. E117 Deleted type "E" fixture in Rooms 307 and 311. Deleted one type "L2" fixture in Rooms 307 and 311. Added one type "L2E" fixture in Rooms 307 and 311.
- s. E117A Deleted one Type "L1" fixture in Rooms 301, 302, 308, 309, 310, 316, 317. Added one Type "L1E" fixture in Rooms 301, 302, 308, 309, 310, 316, 317.
- t. E118A Deleted one Type "E" fixture in Room 401. Deleted one Type "L2" fixture in Room 401. Deleted one Type "L1" fixtures in Rooms 407, 408, 409, 410 and 411. Deleted two Type "L1" fixtures in Rooms 402 and 416. Added one Type "L1E" fixture in Rooms 407, 408, 409, 410 and 411. Added two Type "L1E" fixture in Rooms 402. and 416. Added one Type "L2E" fixture in Rooms 401.

4. ATTACHMENTS

- a. Project Manual
 - Section 012100 i.
 - ii. **Section 093013**
- b. Drawings
 - AD101A i.
 - ii. AD102
 - iii. AD103
 - AD104 iv.
 - A102
 - ٧.
 - A202 νi.
 - A301 vii. A301A
 - viii. A302 ix.
 - A303 X.

ADDENDUM NO. 2

RENOVATION OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

2018023.00

A304 xi. xii. A402 A502 xiii. xiv. A701 XV. A801 A803 xvi. xvii. E003 xviii. E004 xix. E004.1 E005 XX. E009.2 xxi. xxii. E009.3 xxiii. E012 xxiv. E013 XXV. E106 E106A xxvi. xxvii. E116 E117 xxviii. xxix. E117A E118A XXX.

End of Addendum No. 2

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Unit-cost allowances.

C. Related Requirements:

1. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

A. Allowance is a quantity of work or dollar amount established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of

ALLOWANCES 012100 - 1

SCO #17-18154-01A; NCCCS #2352

allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 LUMP-SUM, UNIT-COST AND QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.8 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
 - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return

ALLOWANCES 012100 - 2

damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance No. 1: Unit-Cost Allowance: Include the sum of \$4,260.00 for explorative demolition and subsequent repairs/waterproofing improvements to the A/S Building connector where evidence of water intrusion has been visually observed as specified in Division 07 "Thermal and Moisture Protection" and as shown on Drawings.

END OF SECTION 012100

ALLOWANCES 012100 - 3

SECTION 093013 - CERAMIC TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Porcelain tile.
 - 2. Waterproof membrane for thinset applications.
 - 3. Stone thresholds.
 - 4. Metal edge strips.

B. Related Requirements:

- 1. Section 079200 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
- 2. Section 092900 "Gypsum Board" for cementitious backer units.

1.3 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in its "Specifications for Installation of Ceramic Tile."
- C. Module Size: Actual tile size plus joint width indicated.
- D. Face Size: Actual tile size, excluding spacer lugs.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Verification:
 - 1. Full-size units of each type and composition of tile and for each color and finish required.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.
- C. Product Certificates: For each type of product.
- D. Product Test Reports: For tile-setting and -grouting products and certified porcelain tile.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer is a five-star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.
 - 2. Installer's supervisor for Project holds the International Masonry Institute's Foreman Certification.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.
- D. Store liquid materials in unopened containers and protected from freezing.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations for Tile: Obtain tile of each type and color or finish from single source or producer.
 - 1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.

- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from single manufacturer and each aggregate from single source or producer.
 - 1. Obtain setting and grouting materials, except for unmodified Portland cement and aggregate, from single manufacturer.
- C. Source Limitations for Other Products: Obtain each of the following products specified in this Section from a single manufacturer:
 - 1. Stone thresholds.
 - 2. Cementitious backer units.
 - 3. Metal edge strips.

2.2 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
 - 1. Provide tile complying with Standard grade requirements.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.
- C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.

2.3 TILE PRODUCTS, GENERAL

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Dal-Tile Corporation, Veranda Solids series, or comparable products by one of the following:
 - 1. American Marazzi Tile, Inc.
 - 2. American Olean Corporation.
 - 3. Crossville, Inc.
 - 4. Florida Tile, Inc.
 - 5. Florim USA.
 - 6. Interceramic.
 - 7. Iris US.
 - 8. Porcelanite.
 - 9. Seneca Tiles, Inc.
 - 10. Certification: Tile certified by the Porcelain Tile Certification Agency.

SCO #17-18154-01A; NCCCS #2352

2.4

A. Large Format Porcelain Floor Tile (PFT-1): Dal-Tile Corporation

- 1. Face Size: *18 by 18 inches*.
- 2. Thickness: 3/8 inch.

TILE PRODUCTS, TYPES

- 3. Face: Textured with square edges.
- 4. Finish: Unpolished
- 5. Dynamic Coefficient of Friction: Not less than 0.42.
- 6. Tile Color and Pattern: As selected by Architect from manufacturer's full range.
- 7. Grout Color: As selected by Architect from manufacturer's full range.

B. Porcelain Floor Tile (CT-1): Dal-Tile Corporation

- 1. Face Size: 2 by 2 inches.
- 2. Thickness: 5/16 inch.
- 3. Face: Plain with square or cushion edges.
- 4. Dynamic Coefficient of Friction: Not less than 0.60.
- 5. Tile Color and Pattern: As selected by Architect from manufacturer's full range.
- 6. Grout Color: As selected by Architect from manufacturer's full range.
- 7. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable. Provide shapes as follows, selected from manufacturer's standard shapes:
 - a. Porcelain Tile Base (CT-2): Coved with surface bullnose top edge, face size 6 by 6 inches. (at instances of wall tile and base combinations, top edge to be square) Outside coved corners with surface bullnose top edge, face size 1 by 6 inches.

C. Porcelain Wall Tile (CT-3): Dal-Tile Corporation

- 1. Face Size: 6 by 6 inches.
- 2. Thickness: 5/16 inch.
- 3. Wearing Surface: Nonabrasive, smooth.
- 4. Dynamic Coefficient of Friction: Not less than 0.42.
- 5. Finish: Mat, opaque glaze.
- 6. Tile Color and Pattern: As selected by Architect from manufacturer's full range.
- 7. Grout Color: As selected by Architect from manufacturer's full range.
- 8. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable. Provide shapes as follows, selected from manufacturer's standard shapes.

D. Porcelain Wall Tile (CT-4): Dal-Tile Corporation

- 1. Face Size: 3 by 6 inches.
- 2. Thickness: 5/16 inch.
- 3. Wearing Surface: Nonabrasive, smooth.
- 4. Dynamic Coefficient of Friction: Not less than 0.42.
- 5. Finish: Mat, opaque glaze.
- 6. Tile Color and Pattern: As selected by Architect from manufacturer's full range.
- 7. Grout Color: As selected by Architect from manufacturer's full range.
- 8. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable. Provide shapes as follows, selected from manufacturer's standard shapes.

2.5 WATERPROOF MEMBRANE

A. General: Manufacturer's standard product that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.

2.6 THRESHOLDS

- A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.
 - 1. Bevel edges at 1:2 slope, with lower edge of bevel aligned with or up to 1/16 inch above adjacent floor surface. Finish bevel to match top surface of threshold. Limit height of threshold to 1/2 inch or less above adjacent floor surface.
- B. Marble Thresholds: ASTM C 503/C 503M, with a minimum abrasion resistance of 12 according to ASTM C 1353 or ASTM C 241/C 241M and with honed finish.
 - 1. Description: Uniform, fine- to medium-grained white stone with gray veining.

2.7 SETTING MATERIALS

- A. Latex-Portland Cement Mortar (Thinset): ANSI A118.4.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Ardex Americas.
 - 2. Boiardi Products Corporation; a QEP company.
 - 3. Bonsal American; an Oldcastle company.
 - 4. Bostik, Inc.
 - 5. C-Cure.
 - 6. Custom Building Products.
 - 7. Jamo Inc.
 - 8. Laticrete International, Inc.
 - 9. MAPEI Corporation.
 - 10. Merkrete Systems; Parex USA, Inc.
 - 11. Southern Grouts & Mortars, Inc.
 - 12. Summitville Tiles, Inc.
 - 13. TEC; H. B. Fuller Construction Products Inc.
- C. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
- D. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

2.8 GROUT MATERIALS

A. High-Performance Tile Grout: ANSI A118.7.

- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Ardex Americas.
 - 2. Boiardi Products Corporation; a QEP company.
 - 3. Bonsal American; an Oldcastle company.
 - 4. Bostik, Inc.
 - 5. C-Cure.
 - 6. Custom Building Products.
 - 7. Jamo Inc.
 - 8. Laticrete International, Inc.
 - 9. MAPEI Corporation.
 - 10. Southern Grouts & Mortars, Inc.
 - 11. Summitville Tiles, Inc.
 - 12. TEC; H. B. Fuller Construction Products Inc.
- C. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.

2.9 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Vapor-Retarder Membrane: Polyethylene sheeting, ASTM D 4397, 4.0 mils thick.
- C. Metal Edge Strips: Angle or L-shaped, height to match tile and setting-bed thickness, metallic or combination of metal and PVC or neoprene base, designed specifically for flooring applications; stainless-steel, ASTM A 666, 300 Series exposed-edge material.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Blanke Corporation.
 - b. Ceramic Tool Company, Inc.
 - c. Schluter Systems L.P.
- D. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.
- E. Grout Sealer: Manufacturer's standard product for sealing grout joints and that does not change color or appearance of grout.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bonsal American, an Oldcastle company; Grout Sealer.

SCO #17-18154-01A; NCCCS #2352

- b. Custom Building Products; Surfaceguard Sealer.
- c. Jamo Inc.; Surfaceguard Sealer.
- d. Southern Grouts & Mortars, Inc.; Grout Sealer.
- e. Summitville Tiles, Inc.; SL-15, Invisible Seal.
- f. TEC, H. B. Fuller Construction Products Inc.; Grout Guard Plus Penetrating Grout Sealer.
- 2. Grout sealers shall comply with requirements of FloorScore certification.

2.10 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
 - 2. Verify that concrete substrates for tile floors installed with thinset mortar comply with surface finish requirements in ANSI A108.01 for installations indicated.
 - a. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
 - 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
 - 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thinset mortar with trowelable leveling and patching compound specifically recommended by tilesetting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot toward drains.
- C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.

3.3 CERAMIC TILE INSTALLATION

- A. Comply with TCNA's "Handbook for Ceramic, Glass, and Stone Tile Installation" for TCNA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 series "Specifications for Installation of Ceramic Tile" that are referenced in TCNA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
 - 1. For the following installations, follow procedures in the ANSI A108 series of tile installation standards for providing 95 percent mortar coverage:
 - a. Tile floors in wet areas.
 - b. Tile floors consisting of tiles 8 by 8 inches or larger.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- E. Where accent tile differs in thickness from field tile, vary setting-bed thickness so that tiles are flush.
- F. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
 - 1. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.

- 2. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.
- G. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
 - 1. Porcelain Tile: 1/8 inch.
- H. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- I. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
 - 1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
- J. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.
- K. Metal Edge Strips: Install where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with or below top of tile and no threshold is indicated.
- L. Grout Sealer: Apply grout sealer to grout joints in tile floors according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 TILE BACKING PANEL INSTALLATION

A. Install panels and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. Use modified dry-set mortar for bonding material unless otherwise directed in manufacturer's written instructions.

3.5 WATERPROOFING INSTALLATION

- A. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness that is bonded securely to substrate.
- B. Allow waterproofing to cure and verify by testing that it is watertight before installing tile or setting materials over it.

3.6 ADJUSTING AND CLEANING

- A. Remove and replace tile that is damaged or that does not match adjoining tile. Provide new matching units, installed as specified and in a manner to eliminate evidence of replacement.
- B. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
 - 1. Remove grout residue from tile as soon as possible.

SCO #17-18154-01A; NCCCS #2352

2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

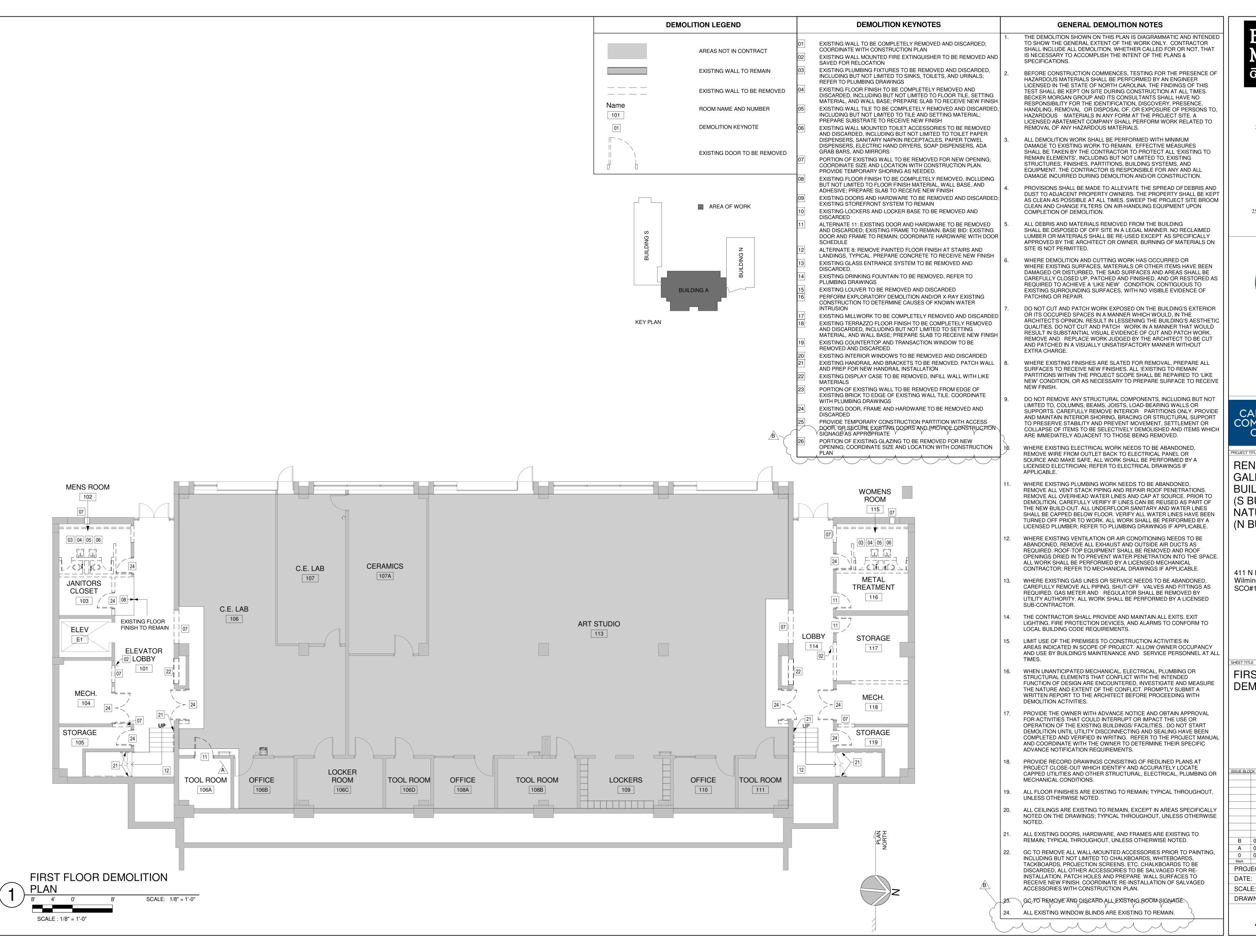
3.7 PROTECTION

- A. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.
- B. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

3.8 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE

- A. Interior Floor Installations, Concrete Subfloor:
 - 1. Ceramic Tile Installation: TCNA F113; thinset mortar.
 - a. Thinset Mortar: Latex-portland cement mortar.
 - b. Grout: High-performance unsanded grout.
- B. Interior Wall Installations, Metal Studs:
 - 1. Ceramic Tile Installation: TCNA W244C or TCNA W244F; thinset mortar on cementitious backer units or fiber-cement backer board.
 - a. Thinset Mortar: Latex-portland cement mortar.
 - b. Grout: High-performance unsanded grout.
- C. Interior Wall Installations, Concrete Masonry Units:
 - 1. Ceramic Tile Installation: TCNA W202; thinset mortar on concrete masonry units.
 - a. Thinset Mortar: Latex-portland cement mortar.
 - b. Grout: High-performance unsanded grout.

END OF SECTION 093013



G R O U P

PLANNING

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600

<u>Maryland</u> 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u>

309 S Governors Ave Dover, DE 19904 302.734.7950 Rittenhouse Station

250 South Main Street, Suite 109 Newarrk, DE 19711

302.369.3700 www.beckermorgan.com







PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

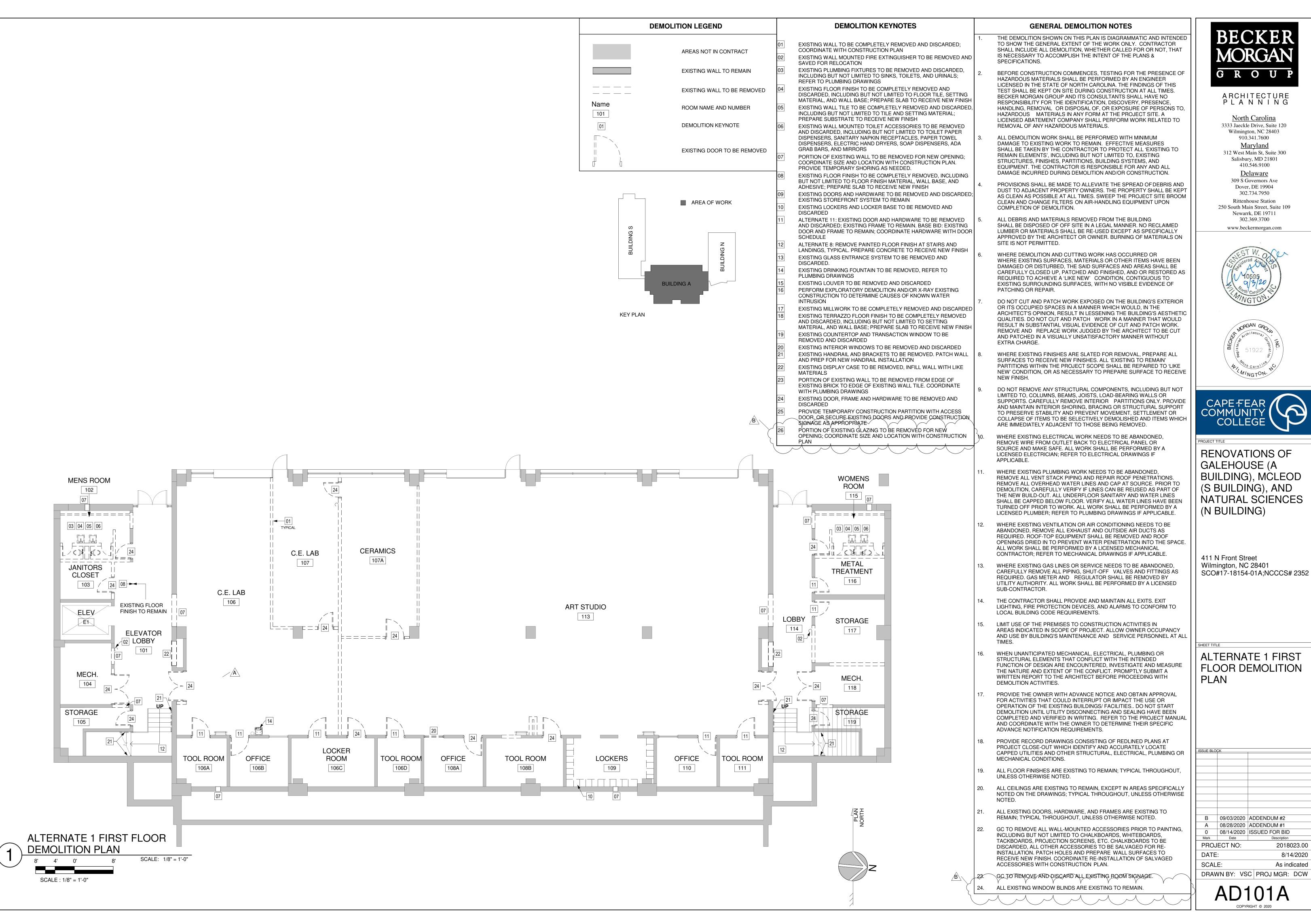
411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

FIRST FLOOR **DEMOLITION PLAN**

ISSUE BLO	ÇK	
В	09/03/2020	ADDENDUM #2
Α	08/28/2020	ADDENDUM #1
0	08/14/2020	ISSUED FOR BID
Mark	Date	Description

PROJECT NO: 2018023.00 8/14/2020

As indicated DRAWN BY: VSC PROJ MGR: DCW



G R O U P

PLANNING North Carolina 3333 Jaeckle Drive, Suite 120

Wilmington, NC 28403 910.341.7600 <u>Maryland</u> 312 West Main St, Suite 300

Salisbury, MD 21801

410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109

Newarrk, DE 19711 302.369.3700 www.beckermorgan.com







RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401

ALTERNATE 1 FIRST FLOOR DEMOLITION

l			
ı	ISSUE BLO	CK	
I			
l			
l			
l			
l			
l			
l			
l			
l			
l	В	09/03/2020	ADDENDUM #2
١	Α	08/28/2020	ADDENDUM #1
١	0	08/14/2020	ISSUED FOR BID
1		n .	D 1.11

PROJECT NO: 2018023.00 8/14/2020

As indicated DRAWN BY: VSC PROJ MGR: DCW



2ND FLOOR DEMOLITION PLAN

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

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

GENERAL DEMOLITION NOTES

THE DEMOLITION SHOWN ON THIS PLAN IS DIAGRAMMATIC AND INTENDED TO SHOW THE GENERAL EXTENT OF THE WORK ONLY. CONTRACTOR SHALL INCLUDE ALL DEMOLITION, WHETHER CALLED FOR OR NOT, THAT IS NECESSARY TO ACCOMPLISH THE INTENT OF THE PLANS & SPECIFICATIONS.

BEFORE CONSTRUCTION COMMENCES, TESTING FOR THE PRESENCE OF HAZARDOUS MATERIALS SHALL BE PERFORMED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. THE FINDINGS OF THIS TEST SHALL BE KEPT ON SITE DURING CONSTRUCTION AT ALL TIMES. BECKER MORGAN GROUP AND ITS CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE IDENTIFICATION, DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO, HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE. A LICENSED ABATEMENT COMPANY SHALL PERFORM WORK RELATED TO REMOVAL OF ANY HAZARDOUS MATERIALS.

ALL DEMOLITION WORK SHALL BE PERFORMED WITH MINIMUM DAMAGE TO EXISTING WORK TO REMAIN. EFFECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL 'EXISTING TO REMAIN ELEMENTS', INCLUDING BUT NOT LIMITED TO, EXISTING STRUCTURES, FINISHES, PARTITIONS, BUILDING SYSTEMS, AND EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE INCURRED DURING DEMOLITION AND/OR CONSTRUCTION.

PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS AND DUST TO ADJACENT PROPERTY OWNERS. THE PROPERTY SHALL BE KEPT AS CLEAN AS POSSIBLE AT ALL TIMES. SWEEP THE PROJECT SITE BROOM CLEAN AND CHANGE FILTERS ON AIR-HANDLING EQUIPMENT UPON COMPLETION OF DEMOLITION.

ALL DEBRIS AND MATERIALS REMOVED FROM THE BUILDING SHALL BE DISPOSED OF OFF SITE IN A LEGAL MANNER. NO RECLAIMED LUMBER OR MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY THE ARCHITECT OR OWNER. BURNING OF MATERIALS ON SITE IS NOT PERMITTED.

WHERE DEMOLITION AND CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED, THE SAID SURFACES AND AREAS SHALL BE CAREFULLY CLOSED UP, PATCHED AND FINISHED, AND OR RESTORED AS REQUIRED TO ACHIEVE A 'LIKE NEW' CONDITION, CONTIGUOUS TO EXISTING SURROUNDING SURFACES, WITH NO VISIBLE EVIDENCE OF PATCHING OR REPAIR.

DO NOT CUT AND PATCH WORK EXPOSED ON THE BUILDING'S EXTERIOR OR ITS OCCUPIED SPACES IN A MANNER WHICH WOULD, IN THE ARCHITECT'S OPINION, RESULT IN LESSENING THE BUILDING'S AESTHETIC QUALITIES. DO NOT CUT AND PATCH WORK IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL VISUAL EVIDENCE OF CUT AND PATCH WORK. REMOVE AND REPLACE WORK JUDGED BY THE ARCHITECT TO BE CUT AND PATCHED IN A VISUALLY UNSATISFACTORY MANNER WITHOUT EXTRA CHARGE.

WHERE EXISTING FINISHES ARE SLATED FOR REMOVAL, PREPARE ALL SURFACES TO RECEIVE NEW FINISHES. ALL 'EXISTING TO REMAIN' PARTITIONS WITHIN THE PROJECT SCOPE SHALL BE REPAIRED TO 'LIKE NEW' CONDITION, OR AS NECESSARY TO PREPARE SURFACE TO RECEIVE NEW FINISH.

DO NOT REMOVE ANY STRUCTURAL COMPONENTS, INCLUDING BUT NOT LIMITED TO, COLUMNS, BEAMS, JOISTS, LOAD-BEARING WALLS OR SUPPORTS. CAREFULLY REMOVE INTERIOR PARTITIONS ONLY. PROVIDE AND MAINTAIN INTERIOR SHORING, BRACING OR STRUCTURAL SUPPORT TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF ITEMS TO BE SELECTIVELY DEMOLISHED AND ITEMS WHICH ARE IMMEDIATELY ADJACENT TO THOSE BEING REMOVED.

WHERE EXISTING ELECTRICAL WORK NEEDS TO BE ABANDONED, REMOVE WIRE FROM OUTLET BACK TO ELECTRICAL PANEL OR SOURCE AND MAKE SAFE. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN; REFER TO ELECTRICAL DRAWINGS IF APPLICABLE.

WHERE EXISTING PLUMBING WORK NEEDS TO BE ABANDONED, REMOVE ALL VENT STACK PIPING AND REPAIR ROOF PENETRATIONS. REMOVE ALL OVERHEAD WATER LINES AND CAP AT SOURCE. PRIOR TO DEMOLITION, CAREFULLY VERIFY IF LINES CAN BE REUSED AS PART OF THE NEW BUILD-OUT. ALL UNDERFLOOR SANITARY AND WATER LINES SHALL BE CAPPED BELOW FLOOR. VERIFY ALL WATER LINES HAVE BEEN TURNED OFF PRIOR TO WORK. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBER: REFER TO PLUMBING DRAWINGS IF APPLICABLE.

2. WHERE EXISTING VENTILATION OR AIR CONDITIONING NEEDS TO BE ABANDONED, REMOVE ALL EXHAUST AND OUTSIDE AIR DUCTS AS REQUIRED. ROOF-TOP EQUIPMENT SHALL BE REMOVED AND ROOF OPENINGS DRIED IN TO PREVENT WATER PENETRATION INTO THE SPACE. ALL WORK SHALL BE PERFORMED BY A LICENSED MECHANICAL CONTRACTOR; REFER TO MECHANICAL DRAWINGS IF APPLICABLE.

WHERE EXISTING GAS LINES OR SERVICE NEEDS TO BE ABANDONED, CAREFULLY REMOVE ALL PIPING, SHUT-OFF VALVES AND FITTINGS AS REQUIRED. GAS METER AND REGULATOR SHALL BE REMOVED BY UTILITY AUTHORITY. ALL WORK SHALL BE PERFORMED BY A LICENSED SUB-CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EXITS. EXIT LIGHTING, FIRE PROTECTION DEVICES, AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS.

LIMIT USE OF THE PREMISES TO CONSTRUCTION ACTIVITIES IN AREAS INDICATED IN SCOPE OF PROJECT. ALLOW OWNER OCCUPANCY AND USE BY BUILDING'S MAINTENANCE AND SERVICE PERSONNEL AT ALL TIMES

WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, PLUMBING OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OF DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT BEFORE PROCEEDING WITH DEMOLITION ACTIVITIES.

PROVIDE THE OWNER WITH ADVANCE NOTICE AND OBTAIN APPROVAL FOR ACTIVITIES THAT COULD INTERRUPT OR IMPACT THE USE OR OPERATION OF THE EXISTING BUILDINGS/ FACILITIES.. DO NOT START DEMOLITION UNTIL UTILITY DISCONNECTING AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING. REFER TO THE PROJECT MANUAL AND COORDINATE WITH THE OWNER TO DETERMINE THEIR SPECIFIC ADVANCE NOTIFICATION REQUIREMENTS.

PROVIDE RECORD DRAWINGS CONSISTING OF REDLINED PLANS AT PROJECT CLOSE-OUT WHICH IDENTIFY AND ACCURATELY LOCATE CAPPED UTILITIES AND OTHER STRUCTURAL, ELECTRICAL, PLUMBING OR

ALL FLOOR FINISHES ARE EXISTING TO REMAIN; TYPICAL THROUGHOUT,

ALL CEILINGS ARE EXISTING TO REMAIN, EXCEPT IN AREAS SPECIFICALLY NOTED ON THE DRAWINGS; TYPICAL THROUGHOUT, UNLESS OTHERWISE

ALL EXISTING DOORS, HARDWARE, AND FRAMES ARE EXISTING TO REMAIN; TYPICAL THROUGHOUT, UNLESS OTHERWISE NOTED.

GC TO REMOVE ALL WALL-MOUNTED ACCESSORIES PRIOR TO PAINTING, INCLUDING BUT NOT LIMITED TO CHALKBOARDS, WHITEBOARDS, TACKBOARDS, PROJECTION SCREENS, ETC. CHALKBOARDS TO BE DISCARDED, ALL OTHER ACCESSORIES TO BE SALVAGED FOR REINSTALLATION. PATCH HOLES AND PREPARE WALL SURFACES TO RECEIVE NEW FINISH. COORDINATE RE-INSTALLATION OF SALVAGED ACCESSORIES WITH CONSTRUCTION PLAN.

GC TO REMOVE AND DISCARD ALL EXISTING ROOM SIGNAGE.

ALL EXISTING WINDOW BLINDS ARE EXISTING TO REMAIN.



ARCHITECTURE PLANNING

North Carolina
3333 Jaeckle Drive, Suite 120
Wilmington, NC 28403
910.341.7600

<u>Maryland</u>

312 West Main St, Suite 300

Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

302.734.7950

302.369.3700 www.beckermorgan.com







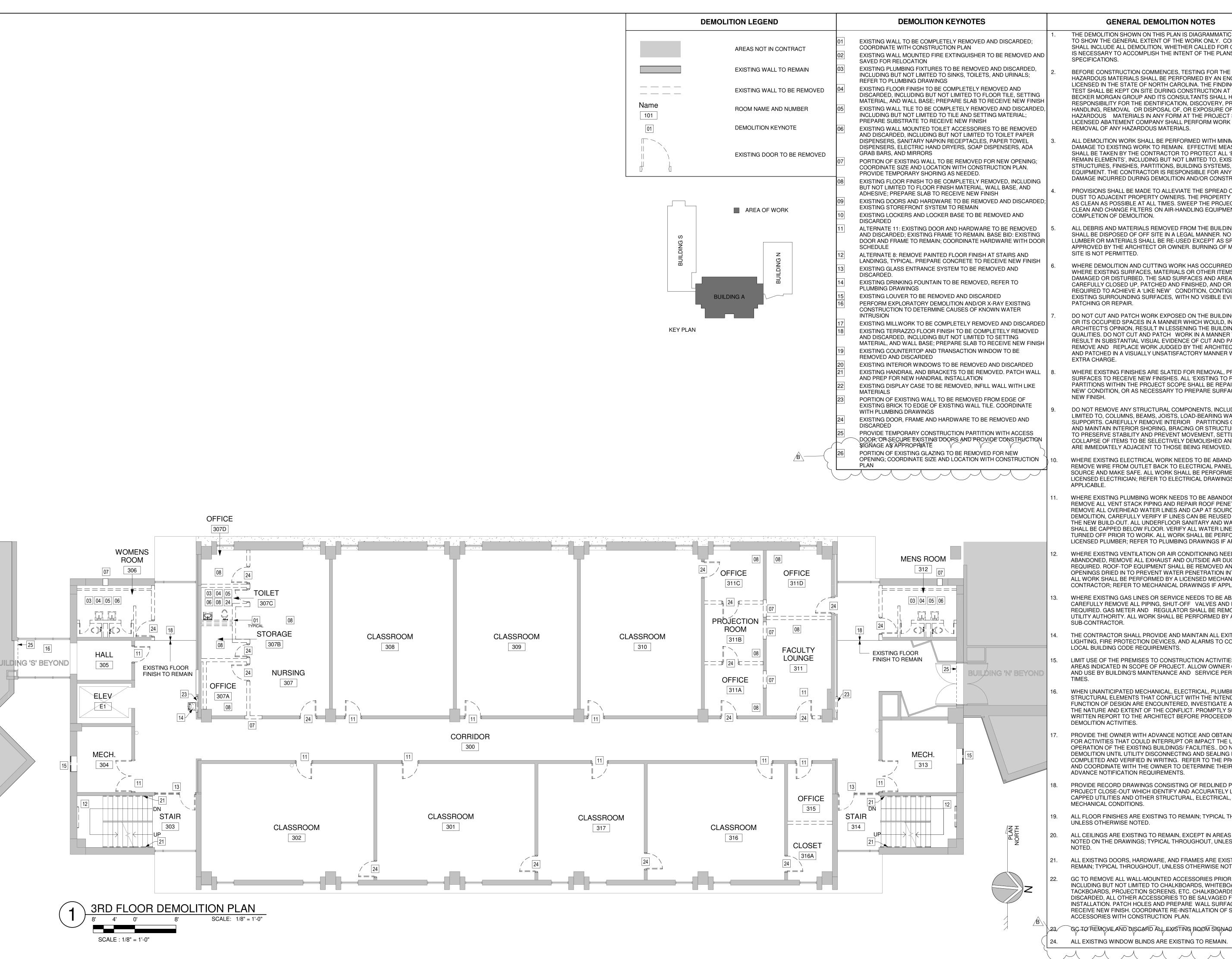
PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

SECOND FLOOR
DEMOLITION PLAN
AND PARTIAL
ALTERNATE
DEMOLITION PLAN

SSUE BLC	СК							
	00/00/0000	ADDENIDURA 110						
B	09/03/2020	ADDENDUM #2						
0 Mark	08/14/2020 Date	ISSUED FOR BID Description						
	JECT NO:	2018023	3.00					
DATE: 8/14/202								
SCALE: As indicated								
DRAV	WN BY: VS	C PROJ MGR: D	CW					
		'						



GENERAL DEMOLITION NOTES

THE DEMOLITION SHOWN ON THIS PLAN IS DIAGRAMMATIC AND INTENDED TO SHOW THE GENERAL EXTENT OF THE WORK ONLY. CONTRACTOR SHALL INCLUDE ALL DEMOLITION, WHETHER CALLED FOR OR NOT, THAT IS NECESSARY TO ACCOMPLISH THE INTENT OF THE PLANS &

BEFORE CONSTRUCTION COMMENCES. TESTING FOR THE PRESENCE OF HAZARDOUS MATERIALS SHALL BE PERFORMED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. THE FINDINGS OF THIS TEST SHALL BE KEPT ON SITE DURING CONSTRUCTION AT ALL TIMES. BECKER MORGAN GROUP AND ITS CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE IDENTIFICATION, DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO. HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE. A LICENSED ABATEMENT COMPANY SHALL PERFORM WORK RELATED TO REMOVAL OF ANY HAZARDOUS MATERIALS.

ALL DEMOLITION WORK SHALL BE PERFORMED WITH MINIMUM DAMAGE TO EXISTING WORK TO REMAIN. EFFECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL 'EXISTING TO REMAIN ELEMENTS', INCLUDING BUT NOT LIMITED TO, EXISTING STRUCTURES, FINISHES, PARTITIONS, BUILDING SYSTEMS, AND EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE INCURRED DURING DEMOLITION AND/OR CONSTRUCTION.

PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS AND DUST TO ADJACENT PROPERTY OWNERS. THE PROPERTY SHALL BE KEPT AS CLEAN AS POSSIBLE AT ALL TIMES. SWEEP THE PROJECT SITE BROOM CLEAN AND CHANGE FILTERS ON AIR-HANDLING EQUIPMENT UPON

ALL DEBRIS AND MATERIALS REMOVED FROM THE BUILDING SHALL BE DISPOSED OF OFF SITE IN A LEGAL MANNER. NO RECLAIMED LUMBER OR MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY THE ARCHITECT OR OWNER. BURNING OF MATERIALS ON

WHERE DEMOLITION AND CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED, THE SAID SURFACES AND AREAS SHALL BE CAREFULLY CLOSED UP, PATCHED AND FINISHED, AND OR RESTORED AS REQUIRED TO ACHIEVE A 'LIKE NEW' CONDITION, CONTIGUOUS TO EXISTING SURROUNDING SURFACES, WITH NO VISIBLE EVIDENCE OF

DO NOT CUT AND PATCH WORK EXPOSED ON THE BUILDING'S EXTERIOR OR ITS OCCUPIED SPACES IN A MANNER WHICH WOULD, IN THE ARCHITECT'S OPINION, RESULT IN LESSENING THE BUILDING'S AESTHETIC QUALITIES. DO NOT CUT AND PATCH WORK IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL VISUAL EVIDENCE OF CUT AND PATCH WORK. REMOVE AND REPLACE WORK JUDGED BY THE ARCHITECT TO BE CUT AND PATCHED IN A VISUALLY UNSATISFACTORY MANNER WITHOUT

WHERE EXISTING FINISHES ARE SLATED FOR REMOVAL, PREPARE ALL SURFACES TO RECEIVE NEW FINISHES. ALL 'EXISTING TO REMAIN' PARTITIONS WITHIN THE PROJECT SCOPE SHALL BE REPAIRED TO 'LIKE NEW' CONDITION, OR AS NECESSARY TO PREPARE SURFACE TO RECEIVE

DO NOT REMOVE ANY STRUCTURAL COMPONENTS, INCLUDING BUT NOT LIMITED TO, COLUMNS, BEAMS, JOISTS, LOAD-BEARING WALLS OR SUPPORTS. CAREFULLY REMOVE INTERIOR PARTITIONS ONLY. PROVIDE AND MAINTAIN INTERIOR SHORING, BRACING OR STRUCTURAL SUPPORT TO PRESERVE STABILITY AND PREVENT MOVEMENT. SETTLEMENT OR COLLAPSE OF ITEMS TO BE SELECTIVELY DEMOLISHED AND ITEMS WHICH

WHERE EXISTING ELECTRICAL WORK NEEDS TO BE ABANDONED, REMOVE WIRE FROM OUTLET BACK TO ELECTRICAL PANEL OR SOURCE AND MAKE SAFE. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN; REFER TO ELECTRICAL DRAWINGS IF

WHERE EXISTING PLUMBING WORK NEEDS TO BE ABANDONED. REMOVE ALL VENT STACK PIPING AND REPAIR ROOF PENETRATIONS. REMOVE ALL OVERHEAD WATER LINES AND CAP AT SOURCE. PRIOR TO DEMOLITION, CAREFULLY VERIFY IF LINES CAN BE REUSED AS PART OF THE NEW BUILD-OUT. ALL UNDERFLOOR SANITARY AND WATER LINES SHALL BE CAPPED BELOW FLOOR. VERIFY ALL WATER LINES HAVE BEEN TURNED OFF PRIOR TO WORK. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBER; REFER TO PLUMBING DRAWINGS IF APPLICABLE

WHERE EXISTING VENTILATION OR AIR CONDITIONING NEEDS TO BE ABANDONED, REMOVE ALL EXHAUST AND OUTSIDE AIR DUCTS AS REQUIRED. ROOF-TOP EQUIPMENT SHALL BE REMOVED AND ROOF OPENINGS DRIED IN TO PREVENT WATER PENETRATION INTO THE SPACE. ALL WORK SHALL BE PERFORMED BY A LICENSED MECHANICAL CONTRACTOR; REFER TO MECHANICAL DRAWINGS IF APPLICABLE.

WHERE EXISTING GAS LINES OR SERVICE NEEDS TO BE ABANDONED CAREFULLY REMOVE ALL PIPING, SHUT-OFF VALVES AND FITTINGS AS REQUIRED. GAS METER AND REGULATOR SHALL BE REMOVED BY UTILITY AUTHORITY. ALL WORK SHALL BE PERFORMED BY A LICENSED

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EXITS. EXIT LIGHTING, FIRE PROTECTION DEVICES, AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS.

LIMIT USE OF THE PREMISES TO CONSTRUCTION ACTIVITIES IN AREAS INDICATED IN SCOPE OF PROJECT. ALLOW OWNER OCCUPANCY AND USE BY BUILDING'S MAINTENANCE AND SERVICE PERSONNEL AT ALL

WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, PLUMBING OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OF DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT BEFORE PROCEEDING WITH

PROVIDE THE OWNER WITH ADVANCE NOTICE AND OBTAIN APPROVAL FOR ACTIVITIES THAT COULD INTERRUPT OR IMPACT THE USE OR OPERATION OF THE EXISTING BUILDINGS/ FACILITIES.. DO NOT START DEMOLITION UNTIL UTILITY DISCONNECTING AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING. REFER TO THE PROJECT MANUAL AND COORDINATE WITH THE OWNER TO DETERMINE THEIR SPECIFIC

PROVIDE RECORD DRAWINGS CONSISTING OF REDLINED PLANS AT PROJECT CLOSE-OUT WHICH IDENTIFY AND ACCURATELY LOCATE CAPPED UTILITIES AND OTHER STRUCTURAL, ELECTRICAL, PLUMBING OR

ALL FLOOR FINISHES ARE EXISTING TO REMAIN; TYPICAL THROUGHOUT,

ALL CEILINGS ARE EXISTING TO REMAIN, EXCEPT IN AREAS SPECIFICALLY NOTED ON THE DRAWINGS; TYPICAL THROUGHOUT, UNLESS OTHERWISE

ALL EXISTING DOORS, HARDWARE, AND FRAMES ARE EXISTING TO REMAIN; TYPICAL THROUGHOUT, UNLESS OTHERWISE NOTED.

GC TO REMOVE ALL WALL-MOUNTED ACCESSORIES PRIOR TO PAINTING, INCLUDING BUT NOT LIMITED TO CHALKBOARDS, WHITEBOARDS, TACKBOARDS, PROJECTION SCREENS, ETC. CHALKBOARDS TO BE DISCARDED, ALL OTHER ACCESSORIES TO BE SALVAGED FOR RE-INSTALLATION. PATCH HOLES AND PREPARE WALL SURFACES TO RECEIVE NEW FINISH. COORDINATE RE-INSTALLATION OF SALVAGED

GC TO REMOVE AND DISCARD ALL EXISTING BOOM SIGNAGE.

ALL EXISTING WINDOW BLINDS ARE EXISTING TO REMAIN.



PLANNING

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600

<u>Maryland</u> 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100

<u>Delaware</u> 309 S Governors Ave Dover, DE 19904 302.734.7950 Rittenhouse Station

250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com







PROJECT TITLE

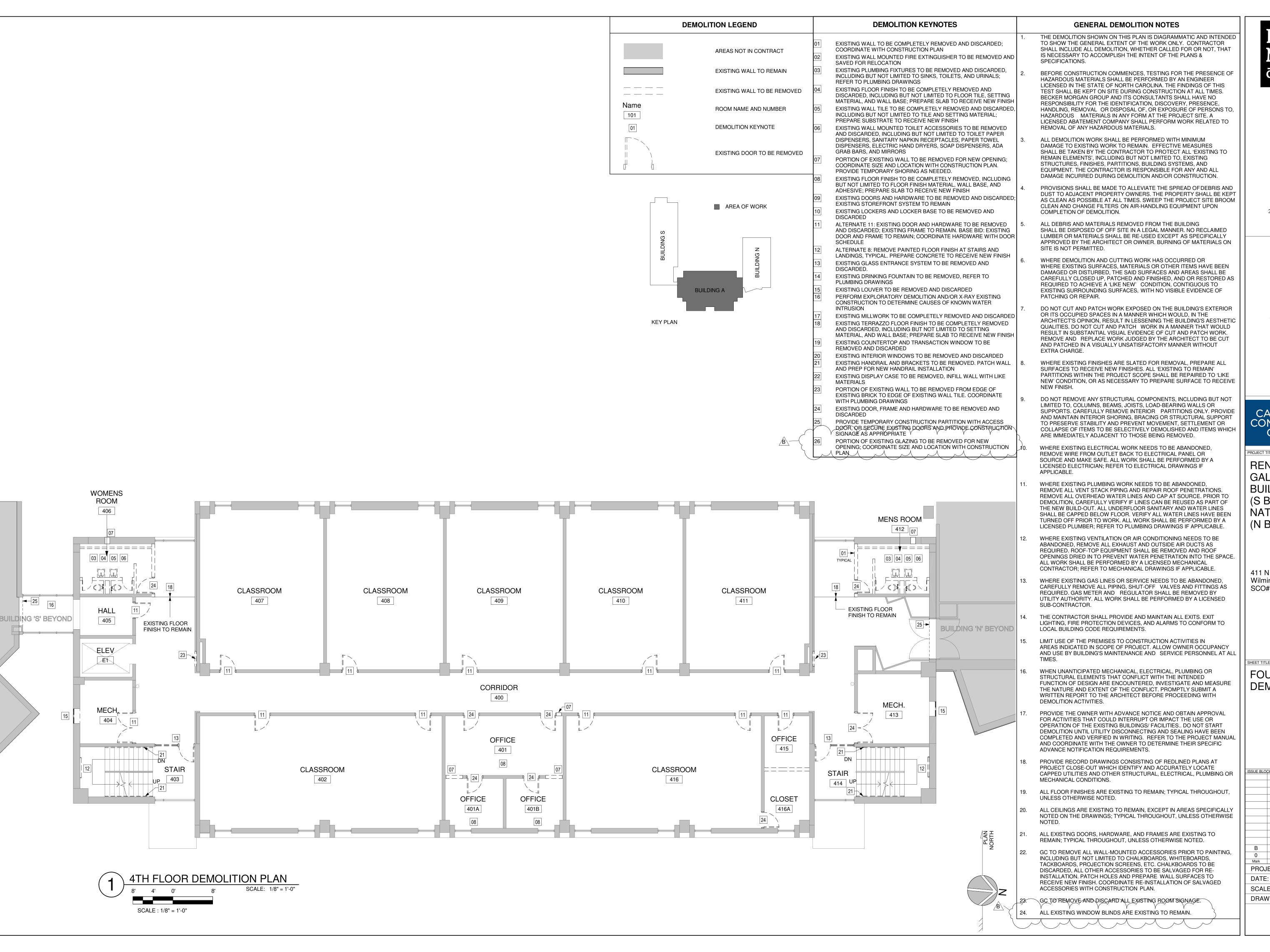
RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

THIRD FLOOR **DEMOLITION PLAN**

].						
ISSUE BLO	OCK								
] '						
			1						
			1						
			┨						
			1						
			1						
			1						
			┨						
			4						
			┛						
В	09/03/2020	ADDENDUM #2							
0	08/14/2020	ISSUED FOR BID							
Mark	Date	Description							
PRO	JECT NO:	2018023.00							
DATE	Ξ:	8/14/2020							
SCAL	_E:	As indicated];						
DRA	WN BY: VS	C PROJ MGR: DCW							
			4						

AD103



North Carolina

910.341.7600 <u>Maryland</u> 312 West Main St, Suite 300

GROUP

PLANNING

3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403

Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave

Dover, DE 19904 302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109

Newarrk, DE 19711 302.369.3700

www.beckermorgan.com







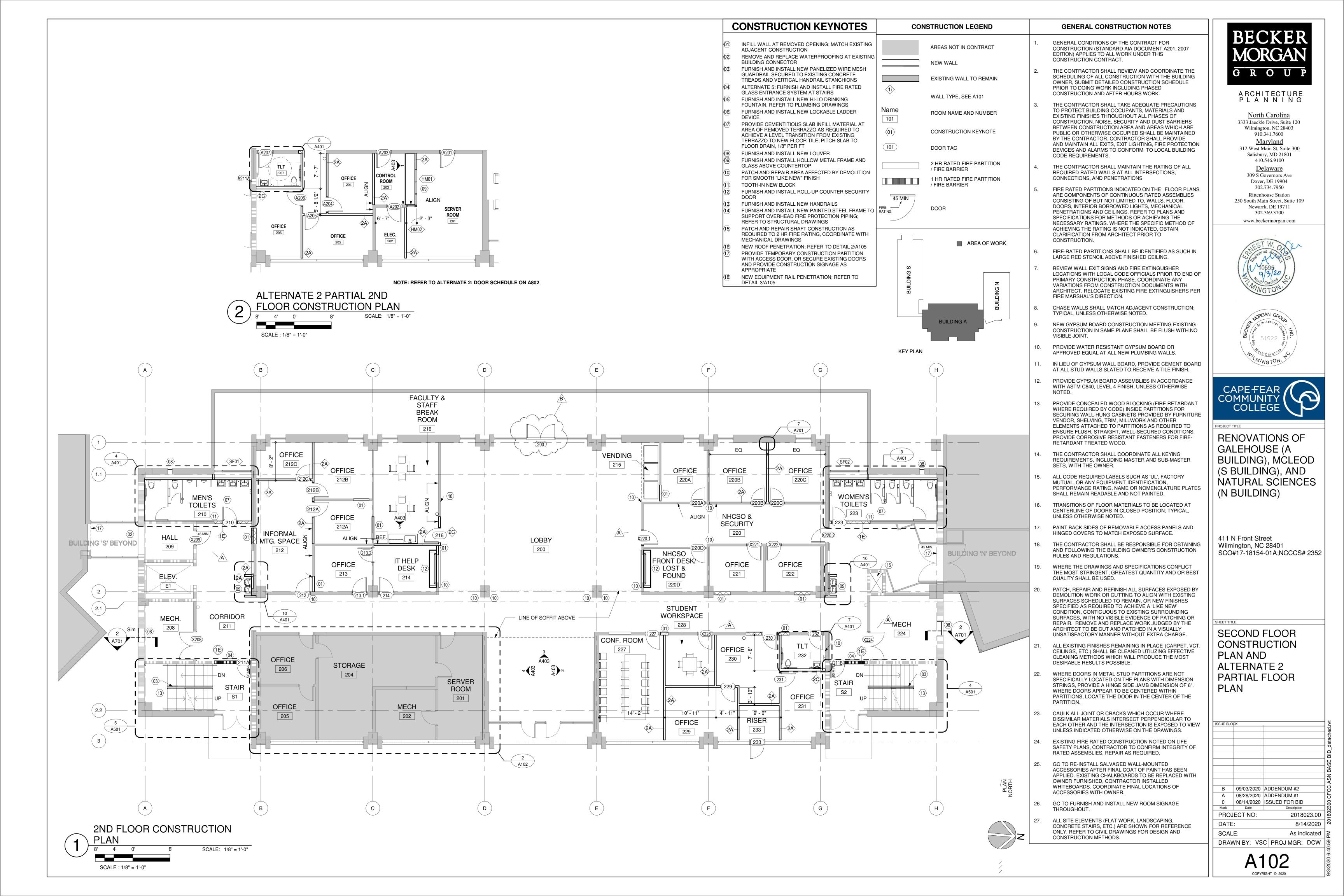
PROJECT TITLE

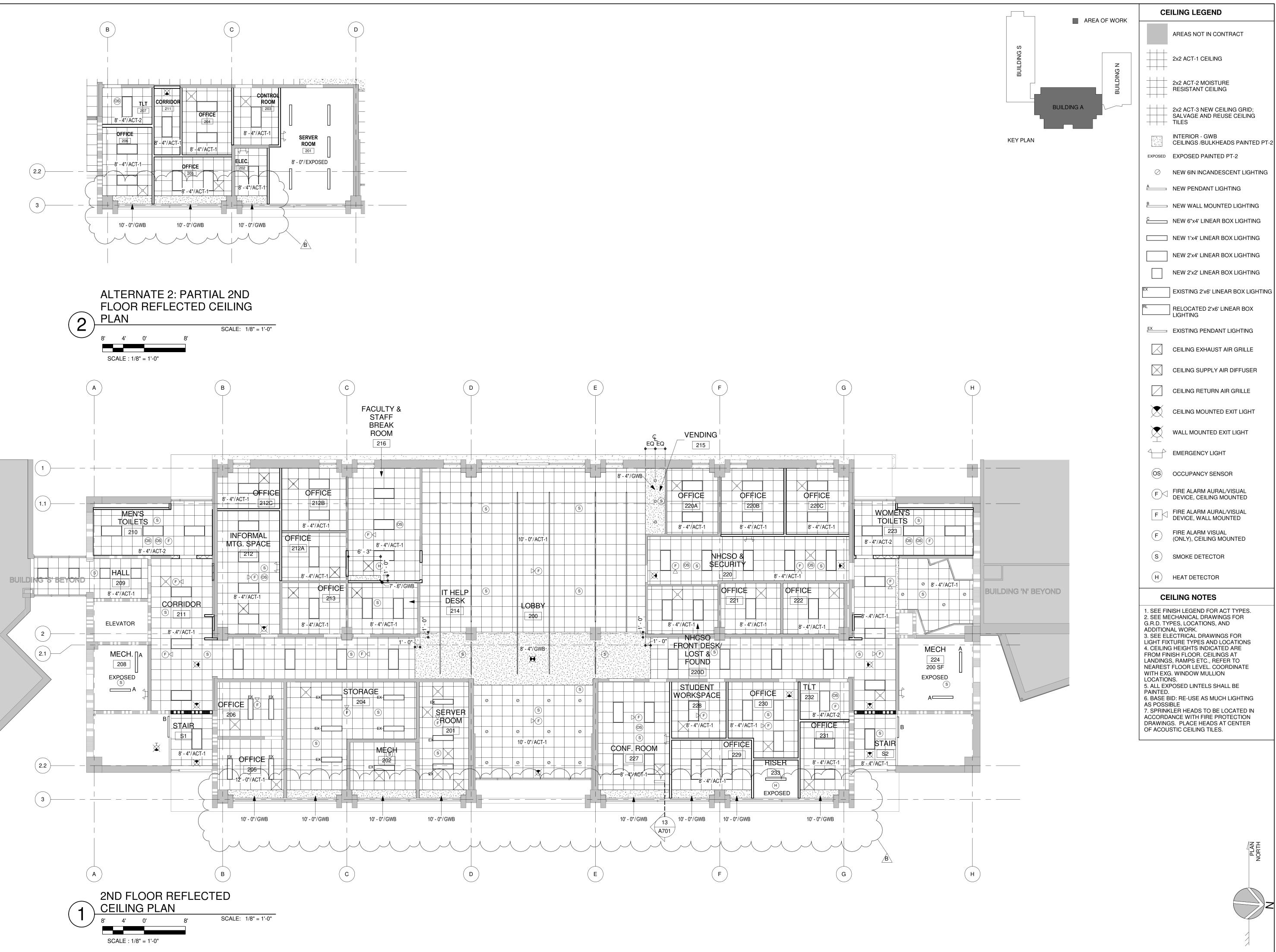
RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

FOURTH FLOOR **DEMOLITION PLAN**

ISSUE BLOCK	_									
	١.									
	╡.									
	┨.									
	⊣.									
	، إ									
	י									
	\exists									
	Է									
	⊣ მ									
	4;									
	_] }									
B 09/03/2020 ADDENDUM #2										
0 08/14/2020 ISSUED FOR BID	\exists									
Mark Date Description	$\exists \exists \exists$									
PROJECT NO: 2018023.00	יו									
DATE: 8/14/2020										
SCALE: As indicated										
DRAWN BY: VSC PROJ MGR: DCW										





G R O U P

ARCHITECTURE PLANNING

North Carolina 3333 Jaeckle Drive, Suite 120 910.341.7600 <u>Maryland</u>

Wilmington, NC 28403

312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

Dover, DE 19904

302.369.3700

www.beckermorgan.com





PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

SHEET TITLE

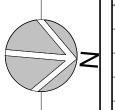
SECOND FLOOR REFLECTED CEILING PLAN AND ALTERNATE 2 -PARTIAL REFLECTED **CEILING PLAN**

ISSUE BLOCK 09/03/2020 ADDENDUM #2 08/14/2020 ISSUED FOR BID PROJECT NO: 2018023.00 DATE: 8/14/2020

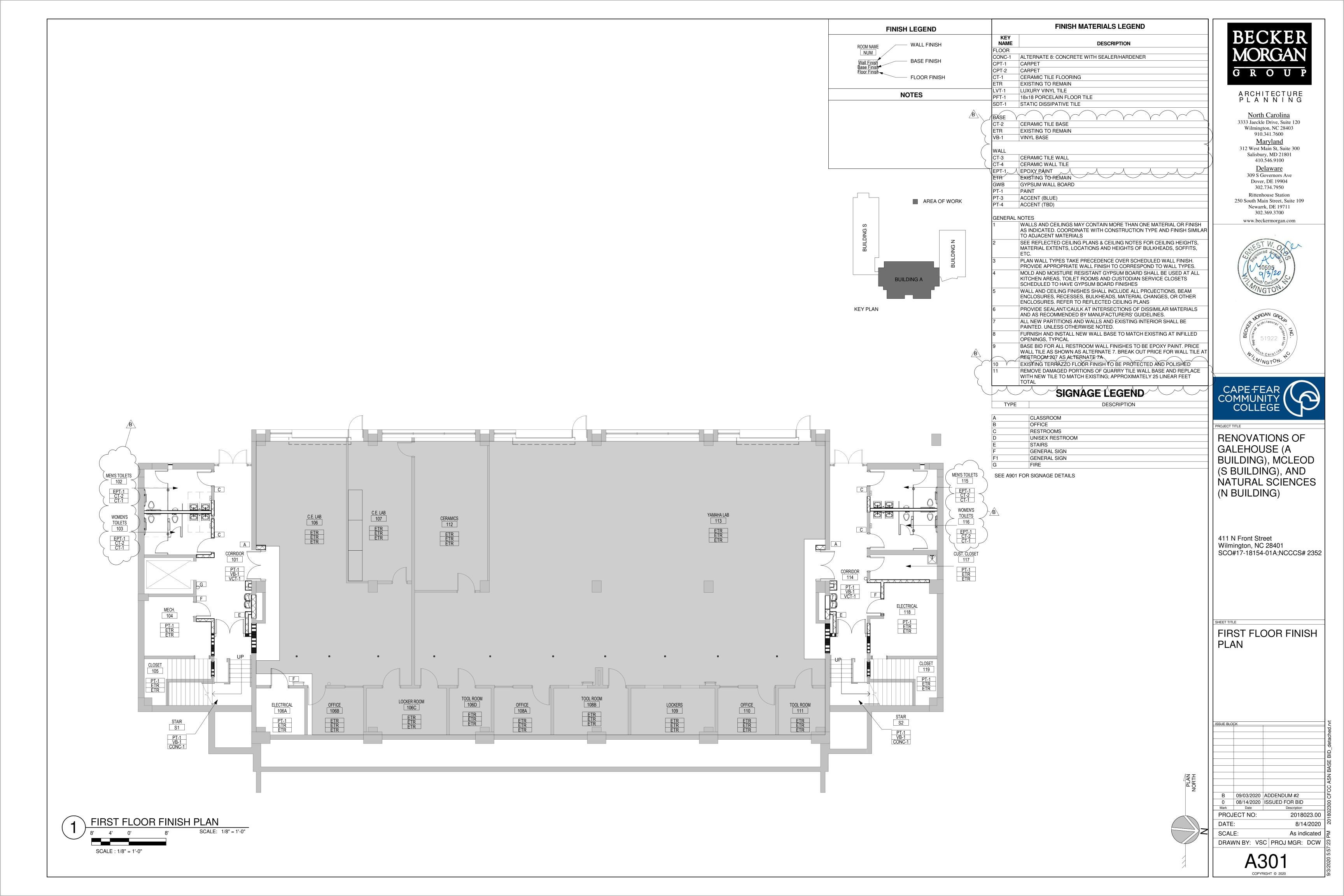
DRAWN BY: VSC PROJ MGR: DCW

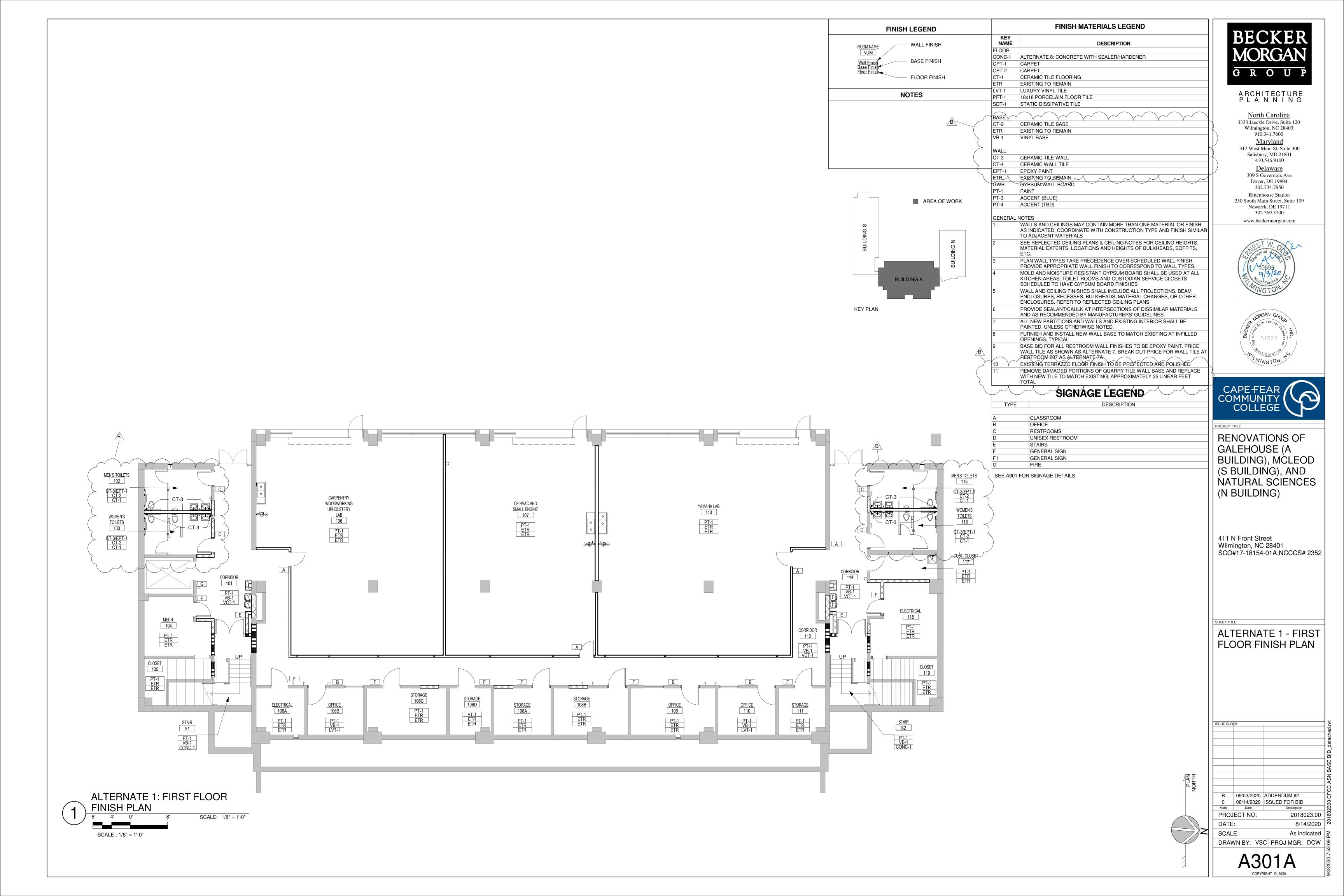
A202

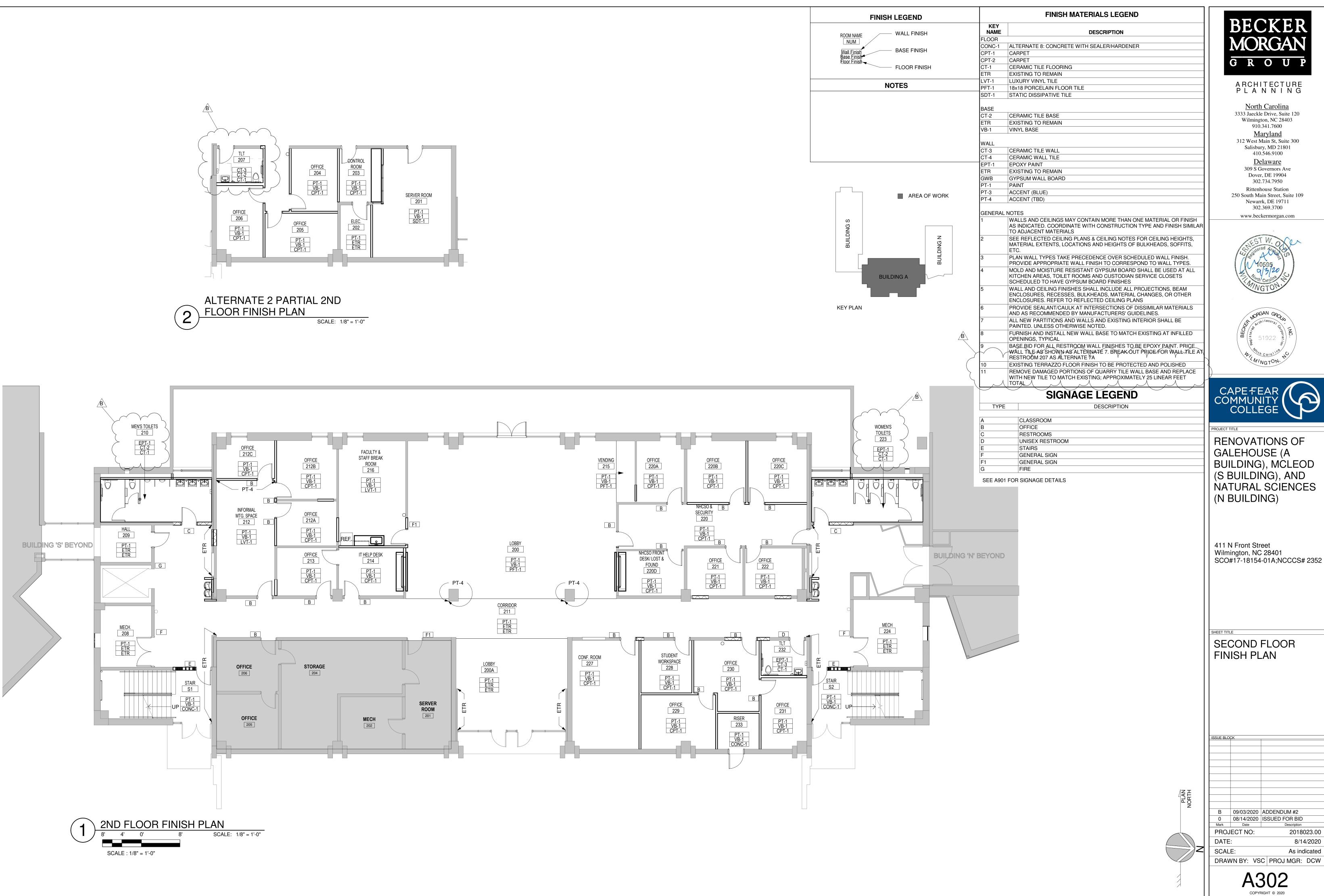
As indicated



SCALE:







G R O U P

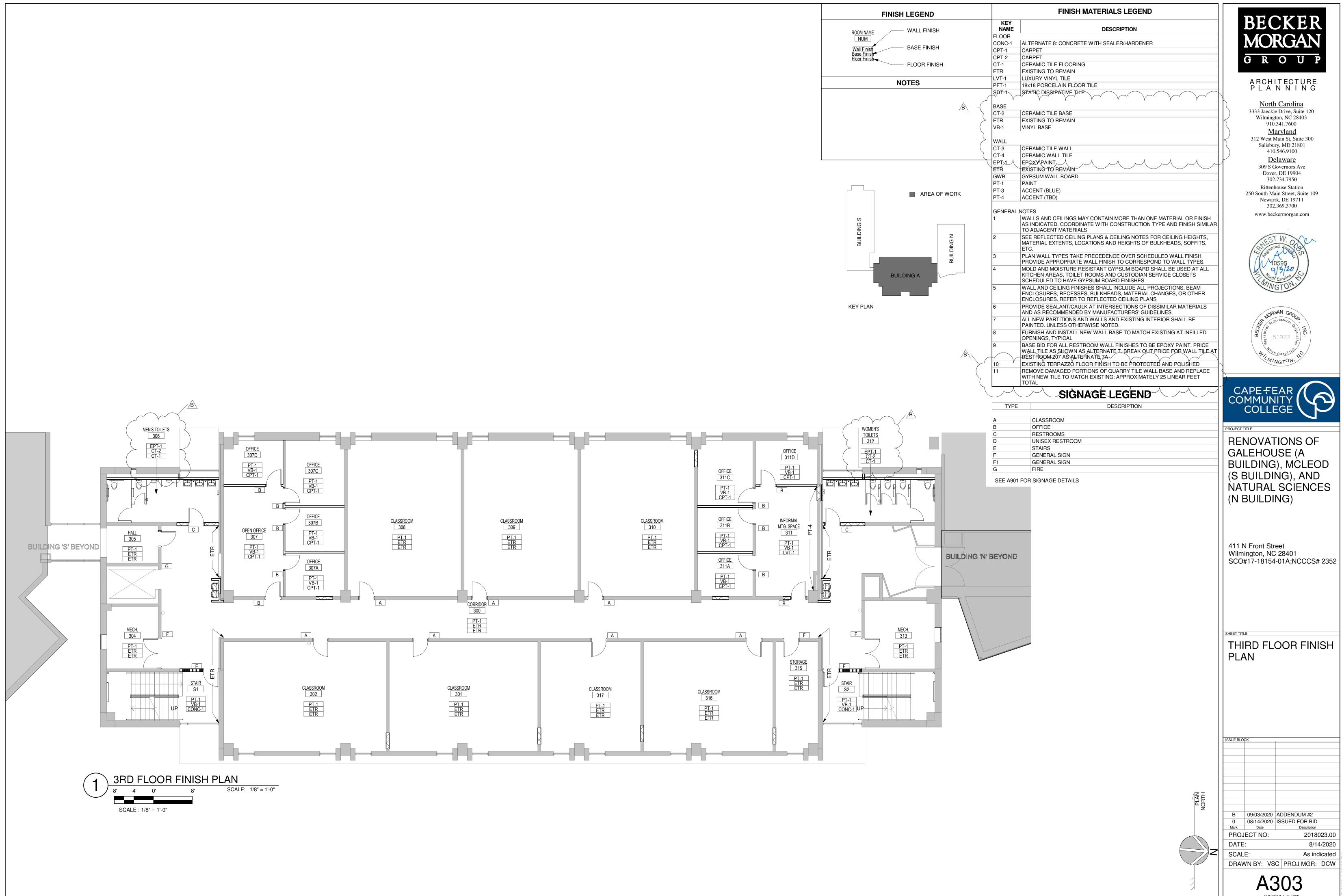






411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

2018023.00

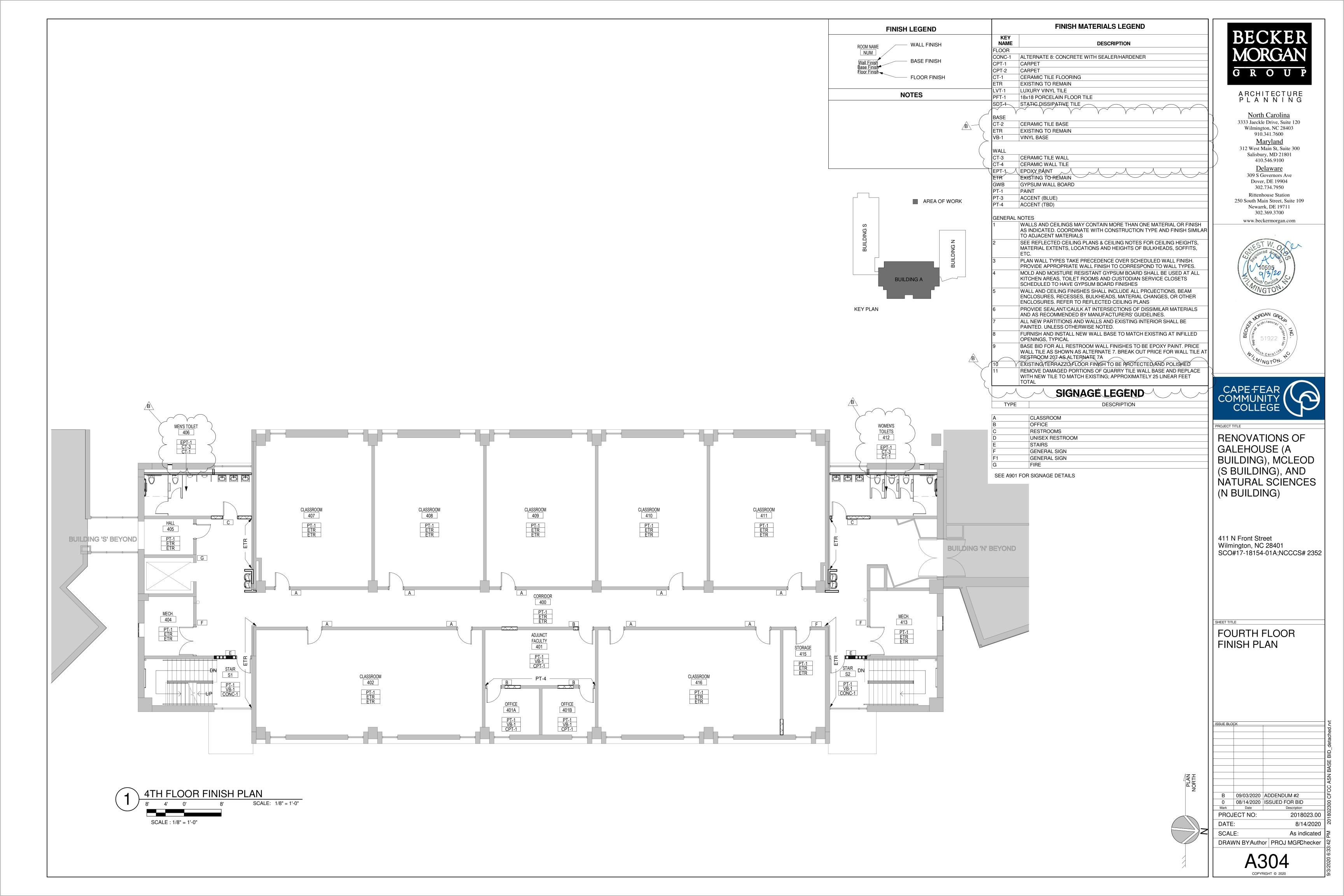


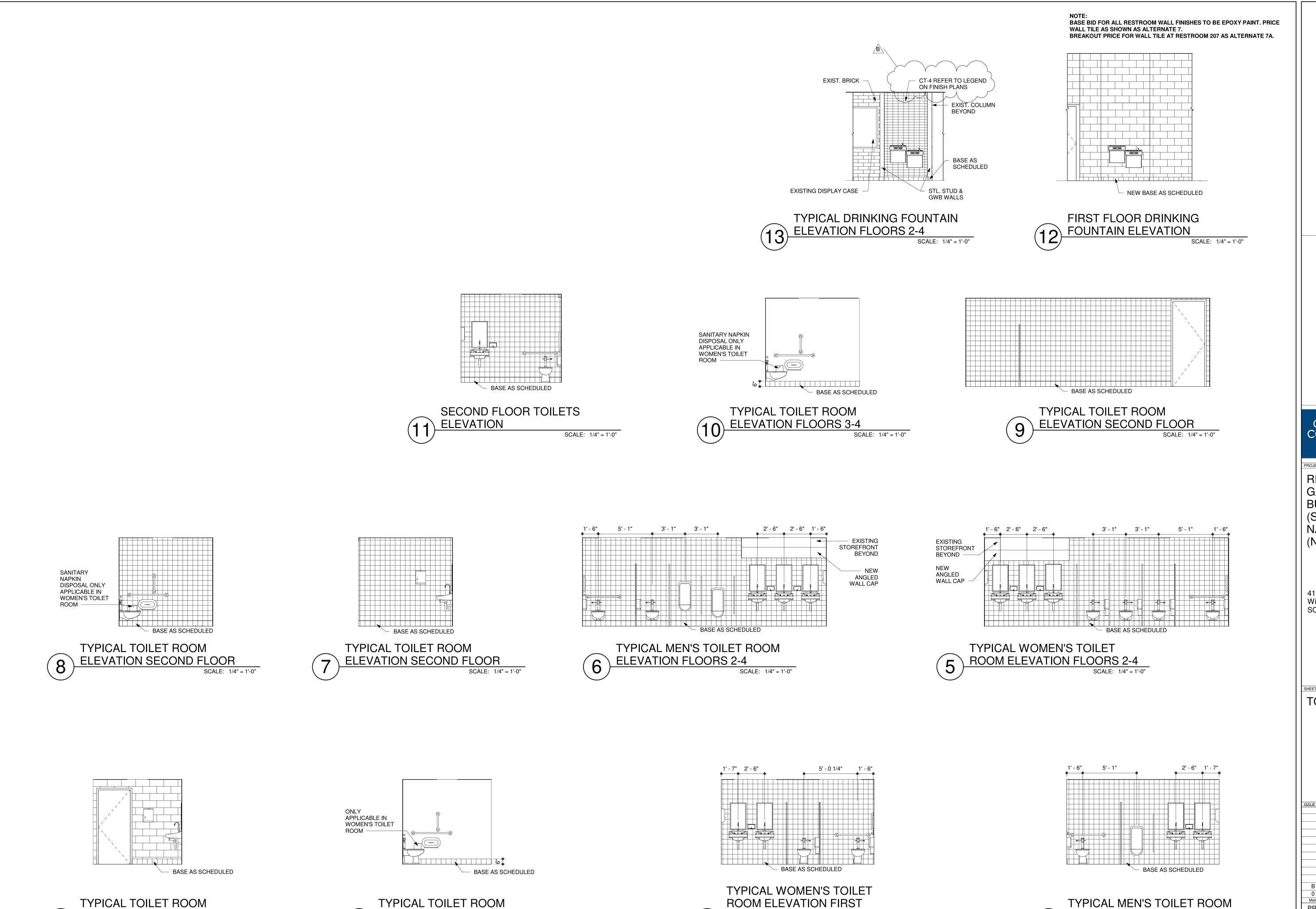




THIRD FLOOR FINISH

2018023.00





FLOOR

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

ELEVATION FIRST FLOOR

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

ELEVATION FIRST FLOOR

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



ARCHITECTURE PLANNING

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 **Maryland** 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100

<u>Delaware</u> 309 S Governors Ave Dover, DE 19904 302.734.7950

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com







PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

ELEVATION FIRST FLOOR

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

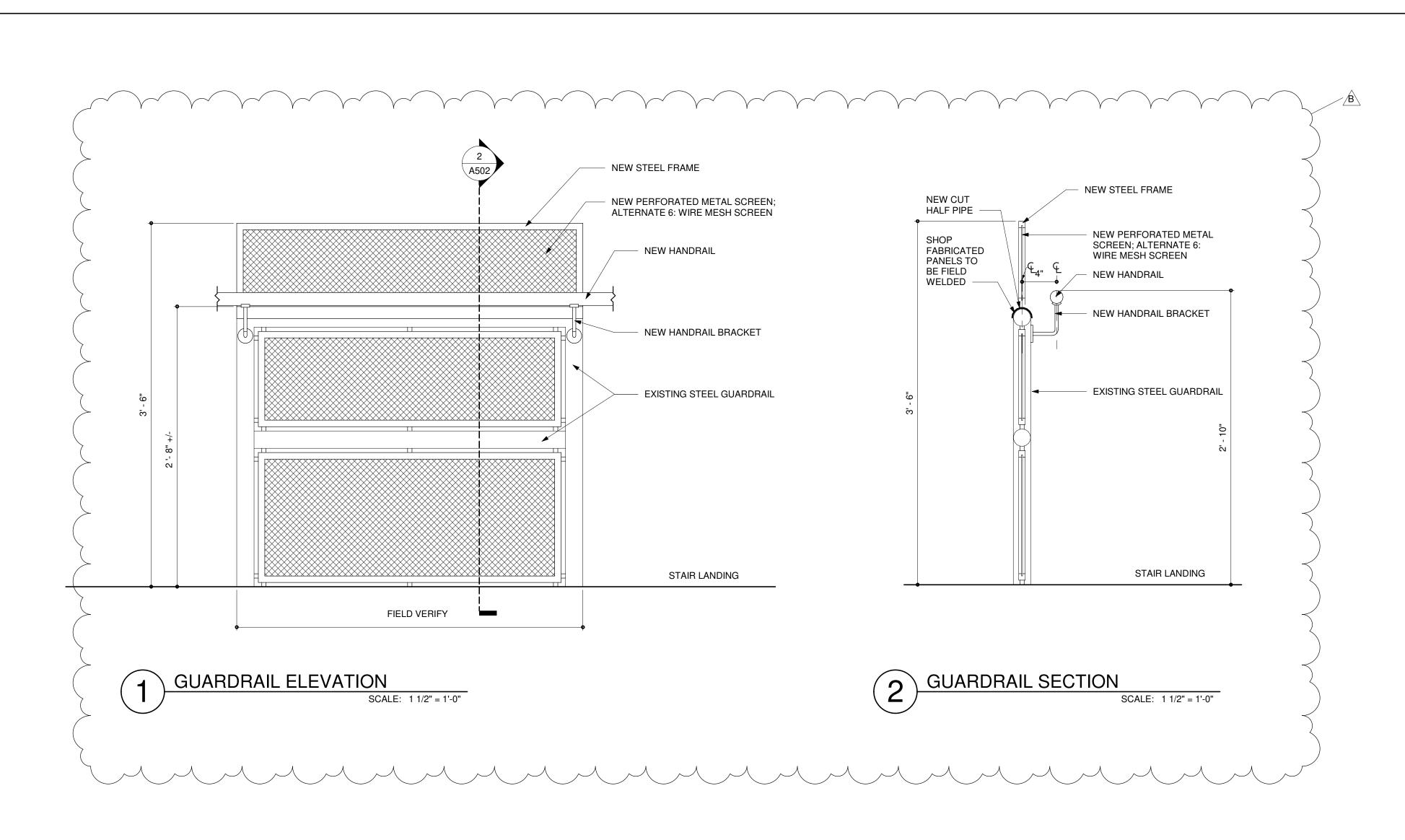
TOILET ELEVATIONS

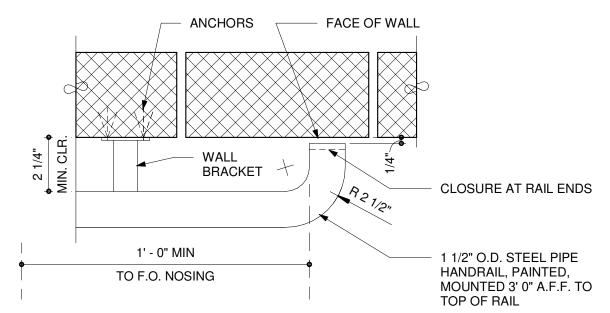
09/03/2020 ADDENDUM #2 08/14/2020 ISSUED FOR BID

PROJECT NO: 2018023.00 DATE:

8/14/2020 SCALE: 1/4" = 1'-0" DRAWN BY: VSC PROJ MGR: DCW

A402





WALL-MOUNTED HANDRAIL DETAIL SCALE: 3" = 1'-0"



ARCHITECTURE P L A N N I N G

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 <u>Maryland</u> 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u>

309 S Governors Ave Dover, DE 19904 302.734.7950 Rittenhouse Station

250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700 www.beckermorgan.com







PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

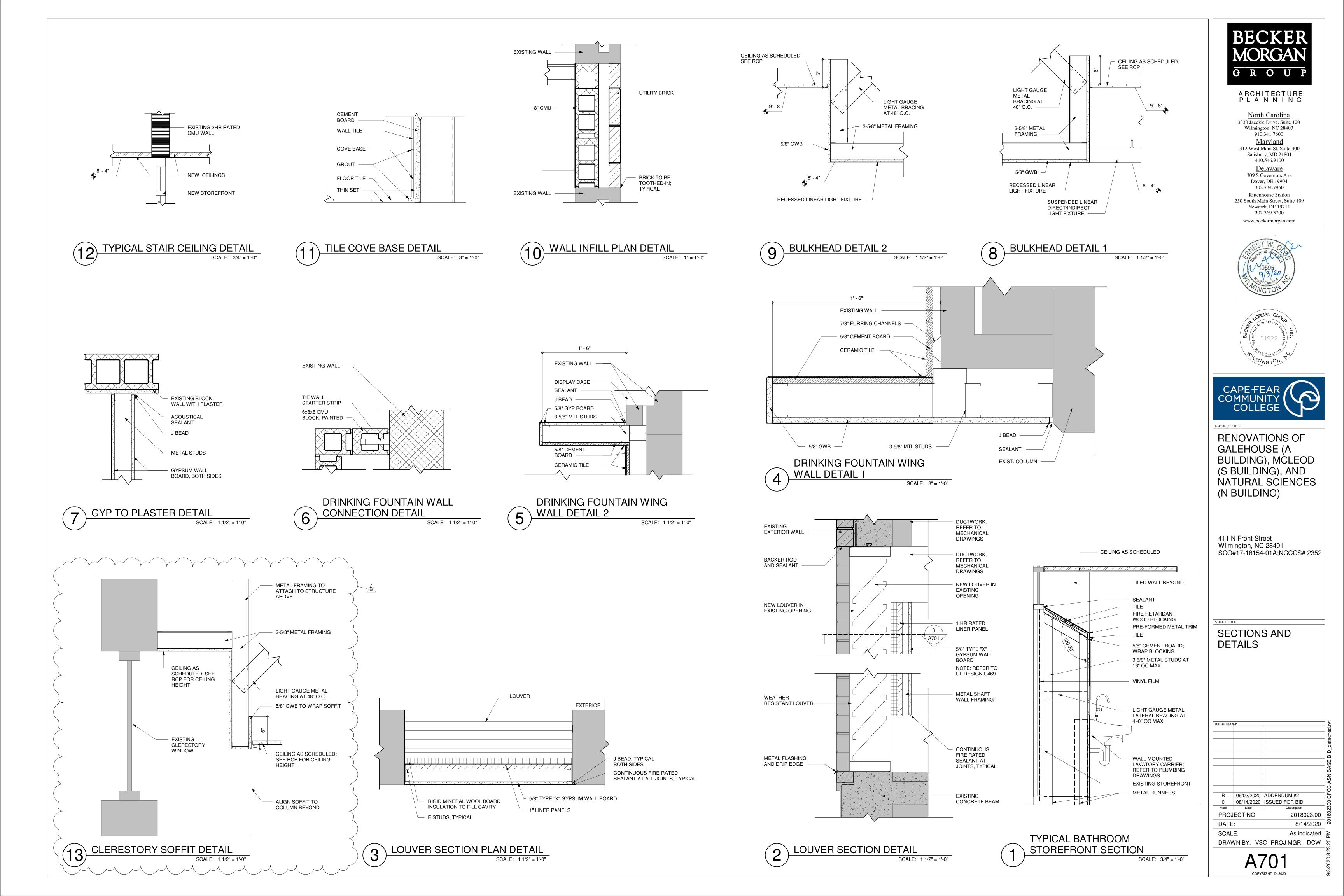
DATE: SCALE:

STAIR DETAILS

П]							
П	ISSUE BLOCK										
П				凉							
П				ا ج							
П				ţ							
П				8							
П				BID_detached.rvt							
				回							
П				焬							
				I≝							
				15							
				S S							
				၂႘							
	В	09/03/2020	ADDENDUM #2	넁							
	0	08/14/2020	ISSUED FOR BID	201802300 CFCC ASN BASE							
	Mark	Date	Description								
	PROJ	ECT NO:	2018023.00								
	DATE	:	8/14/2020	20							

DRAWN BY: LJR PROJ MGR: DCW A502
COPYRIGHT © 2020

As indicated





HARDWARE SET 1

3 HINGES (HEAVY WEIGHT) 1 EXIT DEVICE (PASSAGE) 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 ELECTROMAGNETIC HOLDER 1 GASKETING

HARDWARE SCHEDULE

HARDWARE SET 2

3 HINGES 1 SECURITY STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 THRESHOLD 1 GASKETING 1 SWEEP

HARDWARE SET 3

3 HINGES (HEAVY WEIGHT) 1 EXIT DEVICE (PASSAGE) 1 SURFACE CLÒSER 1 KICK PLATE 1 WALL STOP 1 GASKETING

3 SILENCER **HARDWARE SET 4**

3 HINGES (HEAVY WEIGHT) 1 EXIT DEVICE (PASSAGE) 1 SURFACE CLÒSER 1 KICK PLATE 1 ELECTROMAGNETIC HOLDER 1 GASKETING

HARDWARE SET 5

6 HINGES (HEAVY WEIGHT) 1 REMOVABLE MULLION 1 EXIT DEVICE (EXIT ONLY) 1 EXIT DEVICE (PASSAGE) 1 INTERCHANGEABLE CORE 1 CYLINDER HOUSING 1 CONC OVERHEAD STOP 2 SURFACE CLOSER 1 WALL STOP 2 ELECTROMAGNETIC HOLDER 1 GASKETING 1 MULLION GASKETING

HARDWARE SET 6

3 HINGES, FULL MORTISE 1 EXIT DEVICE (STOREROOM) 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 GASKETING

HARDWARE SET 7

4 HINGES 1 CLASSROOM LOCK 1 INTERCHANGEABLE CORE 1 WALL STOP 3 SILENCER

HARDWARE SET 8

4 HINGES 1 CLASSROOM LOCK 1 INTERCHANGEABLE CORE 1 SURF OVERHEAD STOP 3 SILENCER

HARDWARE SET 9

3 HINGES (HEAVY WEIGHT) 1 CLASSRÒOM LOCK 1 INTERCHANGEABLE CORE 1 SURF OVERHEAD STOP 1 SURFACE CLOSER 1 KICK PLATE 1 GASKETING

HARDWARE SET 9.1

4 HINGES 1 CLASSROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 3 SILENCER

HARDWARE SET 10

3 HINGES (HEAVY WEIGHT) 1 CLASSRÒOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 1 GASKETING

HARDWARE SET 10.1

6 HINGES (HEAVY WEIGHT) 1 FLUSH BOLT (AUTO SET) 1 DUST PROOF STRIKE 1 CLASSROOM LOCK 1 INTERCHANGEABLE CORE 1 COORDINATOR 2 MOUNTING BRACKET 2 SURFACE CLOSER 2 KICK PLATE 2 WALL STOP 1 ASTRAGAL 2 SILENCER

HARDWARE SET 11

3 HINGES 1 OFFICE LOCK 1 INTERCHANGEABLE CORE 1 WALL STOP 3 SILENCER

HARDWARE SET 12

3 HINGES 1 OFFICE LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP

HARDWARE SET 13

1 GASKETING

3 HINGES 1 OFFICE LOCK 1 INTERCHANGEABLE CORE 1 SURF OVERHEAD CLOSER 1 SURFACE CLOSER 1 KICK PLATE 1 GASKETING

HARDWARE SET 14

3 HINGES 1 PRIVACY LOCK 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 1 GASKETING

HARDWARE SET 15

3 HINGES (HEAVY WEIGHT) 1 PUSH PLATE 1 PULL PLATE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 3 SILENCER

HARDWARE SET 16

3 HINGES, FULL MORTISE 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 WALL STOP 3 SILENCER

HARDWARE SET 17

3 HINGES, FULL MORTISE 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURF OVERHEAD HOLD OPEN 3 SILENCER

HARDWARE SET 18

3 HINGES 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 3 SILENCER

HARDWARE SET 19

6 HINGES 2 FLUSH BOLTS 1 DUST PROOF STRIKE 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 2 KICK PLATE 2 WALL STOP 1 GASKETING 1 ASTRAGAL SEAL 1 ASTRAGAL

HARDWARE SET 20

3 HINGES 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 KICK PLATE 1 WALL STOP 1 GASKETING

HARDWARE SET 21

3 HINGES 1 STOREROOM LOCK 1 INTERCHANGEABLE CORE 1 SURFACE CLOSER 1 WALL STOP 1 GASKETING

HARDWARE SET 22

1 INTERCHANGEABLE CORE 1 CYLINER HOUSING

HARDWARE SET 23

1 CASED OPENING

	DOOR AND FRAME SCHEDU	JLE														
					SIZE	DOOR	DESCRIPTION			DESCRIPTION	FRAME	DE	TAILS			
	<u> </u>	/BER	<u>5</u>	VIDTH												
	N NAM	R NC	RATIN	N S	보		ERIAL	Į,		ERIAL	Į,	0				
	ROOI	000	FIRE	OPEN	HEIG	TYPE	MAT	FINE	TYPE	MAT	FINISI	HEA	JAM	НА	RDWARE SET	REMARKS
	1ST FLOOR	04.4	00 14111		71 011	No	0011115	DT		104	DT	114		5.0		AA ONETIO LIOLD ODEN
	MEN'S TOILETS 1	01.1	90 MIN -	6' - 0" 3' - 0"	7' - 0" 7' - 0"	N2 F	SCWD SCWD	PT PT	B A	HM HM	PT PT	H4 H3	J4 J4	5.0 15.0	0	MAGNETIC HOLD OPEN
	MECH. 1	103 104 105	-	3' - 0" 3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	F F CO	SCWD SCWD SCWD	PT PT PT	A	HM HM HM	PT PT PT	H2 H3 H5	J3 J4 J5	15.0 21.0 23.0	0	CASED OPENING
	C.E. LAB 1	106 06A		6' - 0" 3' - 8"	7 - 0" 7' - 0" 7' - 0"	N2	SCWD SCWD	PT PT	A	HM HM	PT PT	H4	J4	10. 6.0	1	DASED OF EINING
	YAMAHA LAB 1	113 14.1	- - 90 MIN	6' - 0" 6' - 0"	7 - 0" 7' - 0" 7' - 0"	N2 N2	SCWD SCWD	PT PT	A	HM HM	PT PT	H4 H4	J4	10. 5.0	1	MAGNETIC HOLD OPEN
	MEN'S TOILETS 1	115	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F	SCWD SCWD	PT PT	A	HM HM	PT PT	H3 H2	J4 J3	15.0	0	WAGNETIOTICED OF EN
Ŕ	CLOSET 1	119	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	CO	SCWD SCWD	PT PT	A ETR	HM HM	PT PT	H5 ETR	J5 ETR	23.	0 0	CASED OPENING ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
B		(117	-	3' 0"		F	SCWD	PT/	ETR	HM	PŢ	EJR	ETR			ALTERNATE 11: EXISTING ORENING, VERIEX DIMENSIONS IN FIELD
	2ND FLOOR LOBBY 2	200	-	6' - 0"	7' - 0"	FG2	ALUM/GLAZ	ANOD	F	ALUM	ANOD	-	_	-	E	EXISTING STOREFONT; VERIFY DIMENSIONS IN FIELD
	MEN'S TOILETS A A 2	210 11A	90 MIN 90	3' - 0"	8' - 0" 7' - 0"	FP	λ SCW/D	ST	A	HM	PT	H1 H4	J3	15.0		MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	INFORMAL MTG. SPACE 2	11B 212	90 MIN -	3' - 0" 3' - 0"	7' - 0" 8' - 2"	N GP	SCWD SCWD	ST ST	A C	HM HM	PT PT	H4 H5	J4 J5	1.0 10.		MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		12A 12B	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	ST ST	C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0		
		12C 13.1	-	3' - 0" 3' - 0"	7' - 0" 8' - 2"	G GP	SCWD SCWD	ST ST	C C	HM HM	PT PT	H5 H5	J5 J5	11.0 13.0		
		13.2 214	-	3' - 0" 3' - 0"	7' - 0" 8' - 2"	G GP	SCWD SCWD	ST ST	C	HM HM	PT PT	H5 H5	J5 J5	11.0 13.0		
		216 20A	-	3' - 0" 3' - 0"	8' - 2" 7' - 0"	NP G	SCWD SCWD	ST ST	C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0		
		20B 20C	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	ST ST	C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0		
		20D 223	-	3' - 0" 3' - 0"	7' - 0" 8' - 0"	G , FP	SCWD SCWD	ST ST	C A	HM HM	PT PT	H5 H1	J5 J3	11.0 15.0		
		227 229	-	3' - 0" 3' - 0"	8' - 2" 7' - 0"	A GP G	SCWD SCWD	ST ST	C	HM HM	PT PT	H5 H5	J5 J5	7.0 11.0		
		230 231	-	3' - 0" 3' - 0"	8' - 2" 7' - 0"	GP G	SCWD SCWD	ST ST	A C C	ETR ETR	PT PT	ETR ETR	ETR ETR			
		232 233		3' - 0" 3' - 0"	8' - 2" 7' - 0"	FP F	SCWD HM	ST PT	C	HM HM	PT PT	H5 H5	J5 J5	14.0 2.0		CARD ACCESS
	MECH. X	(208 (209	- 90 MIN	6' - 0" 3' - 0"	7' - 0" 7' - 6"	F2 N	SCWD SCWD	ST ST	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		220.1	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	NP NP	SCWD SCWD	ST ST	ETR ETR	HM ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		(221	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	ST ST	C ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		(224 (228		6' - 0" 3' - 0"	7' - 0" 8' - 2"	F2 GP	SCWD SCWD	ST ST	ETR C	ETR HM	PT PT	ETR H5	ETR J5	19.0 7.0		ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	3RD FLOOR															
	STAIR 30	00A 00B	90 MIN 90 MIN	3' - 0" 3' - 0"	7' - 0" 7' - 0"	N N	SCWD SCWD	H PT	A A	HM HM	PT PT	H4 H4	J4 J4	4.0 4.0	N	MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	OPEN OFFICE 3	306 307	-	3' - 0" 3' - 0"	8' - 0" 8' - 2"	F NP	SCWD SCWD	PT PT	A C	HM HM	PT PT	H1 H5	J3 J5	15.0 10.0	0	
	OFFICE 30	07A 07B	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	PT PT	C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0	0	
	OFFICE 30	07C 07D	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	PT PT	C	HM HM	PT PT	H5 H5	J5 J5	11.0	0	
	OFFICE 3	311 11A	-	3' - 0" 3' - 0"	8' - 2" 7' - 0"	NP G	SCWD SCWD	PT PT	C	HM HM	PT PT	H5 H5	J5 J5	9.0 11.	0	
	OFFICE 3:	11B 11C	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	PT PT	C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0		
	WOMEN'S TOILETS 3	11D 312	-	3' - 0" 3' - 0"	7' - 0" 8' - 0"	G F	SCWD SCWD	PT PT	C A	HM HM	PT PT	H5 H1	J5 J3	11.0 15.0	0	
	CLASSROOM X	(301 (302	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	NP NP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR		A	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	HALL	(304 (305	- 90 MIN	6' - 0" 3' - 0"	7' - 0" 7' - 6"	F2 N	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	3.0	P	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X	(308 (309	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	NP NP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	8.0	P	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	MECH. X	(310 (313	-	3' - 0" 6' - 0"	8' - 2" 7' - 0"	NP F2	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	19.0	0 <i>A</i>	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X	(315 (316	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	FP NP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	8.0	P	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		(317	-	3' - 0"	8' - 2"	NP	SCWD	PT	ETR	ETR	PT	ETR	ETR	7.0	<i>P</i>	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
		00A	90 MIN	3' - 0"	7' - 0"	N	SCWD	PT	A	НМ	PT	H4	J4	4.0		MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	ADJUNCT FACULTY 4	00B 401	90 MIN -	3' - 0" 3' - 0"	7' - 0" 8' - 2"	N FP	SWCD SCWD	PT PT	A C	HM HM	PT PT	H4 H5	J4 J5	4.0 9.1		MAGNETIC HOLD OPEN; EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	OFFICE 40	01A 01B	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	G G	SCWD SCWD	PT PT	C C	HM HM	PT PT	H5 H5	J5 J5	11.0 11.0	0	
	WOMEN'S TOILETS 4	406 412	-	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F F	SCWD SCWD	PT PT	A A	HM HM	PT PT	H1 H1	J3	15.0 15.0	0	
	CLASSROOM X4	(402 402.1	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	FP FP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	7.0	P	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	HALL	(404 (405	- 90 MIN	6' - 0" 3' - 0"	7' - 0" 7' - 6"	F2 N	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X	(407 (408	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	FP FP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X	(409 (410	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	FP FP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X MECH. X	(411 (413	-	3' - 0" 6' - 0"	8' - 2" 7' - 0"	FP F2	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR			ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	STORAGE X	(415 (416	-	3' - 0" 3' - 0"	8' - 2" 8' - 2"	FP FP	SCWD SCWD	PT PT	ETR ETR	ETR ETR	PT PT	ETR ETR	ETR ETR	17.0	0 4	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD
	CLASSROOM X4	116.1	-	3' - 0"	8' - 2"	FP	SCWD	PT	ETR	ETR	PT	ETR	ETR	8.0	P	ALTERNATE 11: EXISTING OPENING, VERIFY DIMENSIONS IN FIELD



ARCHITECTURE PLANNING

Wilmington, NC 28403 910.341.7600 **Maryland** 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904

North Carolina

3333 Jaeckle Drive, Suite 120

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com







PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

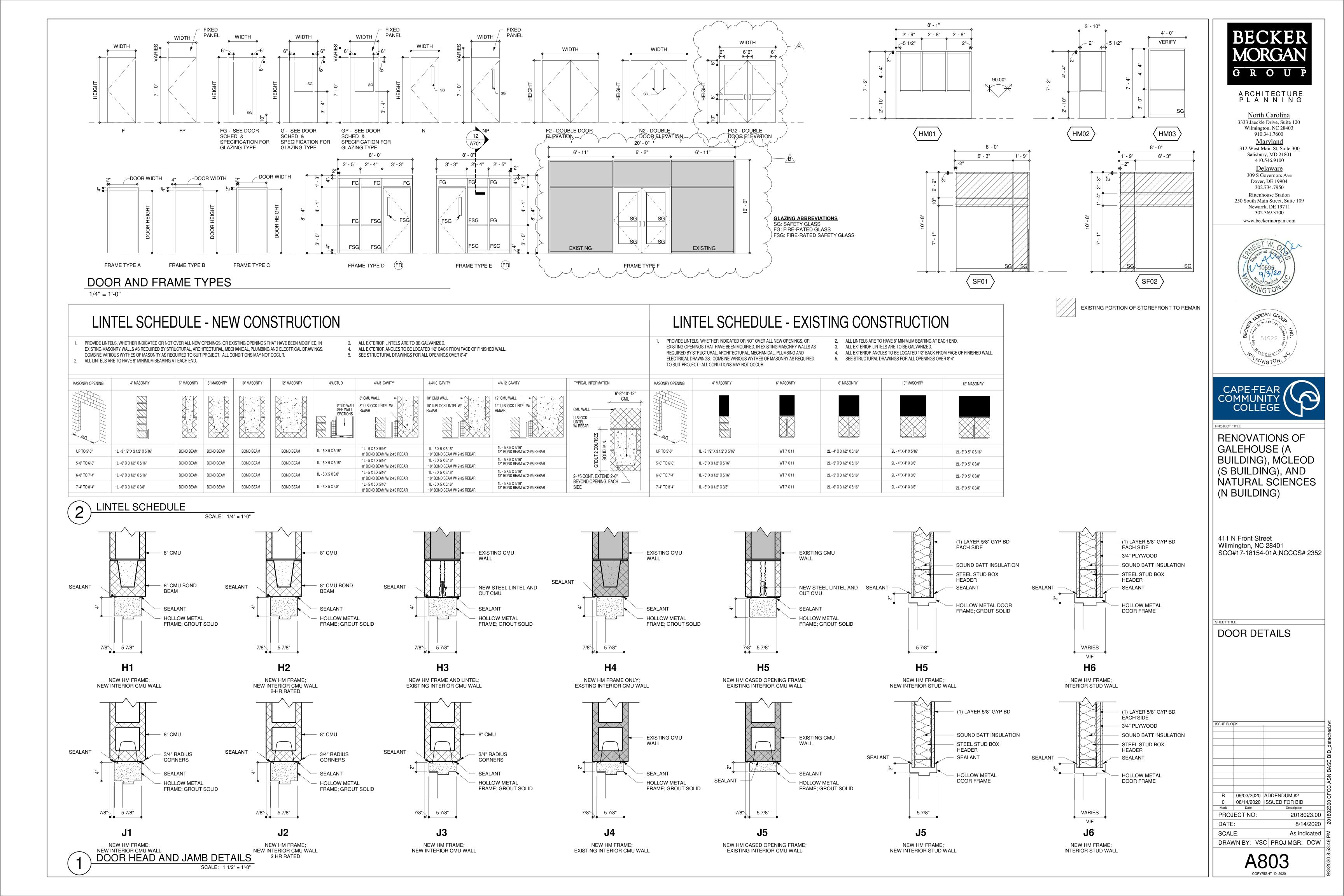
DOOR AND HARDWARE **SCHEDULES**

ISSUE BLO	ISSUE BLOCK									
В	09/03/2020	ADDENDUM #2								
Α	08/28/2020	ADDENDUM #1								
0	08/14/2020	ISSUED FOR BID								
	_									

Mark Date

PROJECT NO: 2018023.00 DATE: 8/14/2020 SCALE: 1/4" = 1'-0" | ≥ DRAWN BY: VSC PROJ MGR: LML

> A801 COPYRIGHT © 2020







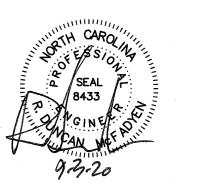


North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland

312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 Delaware 309 S Governors Ave

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

> 302.369.3700 www.beckermorgan.com



RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

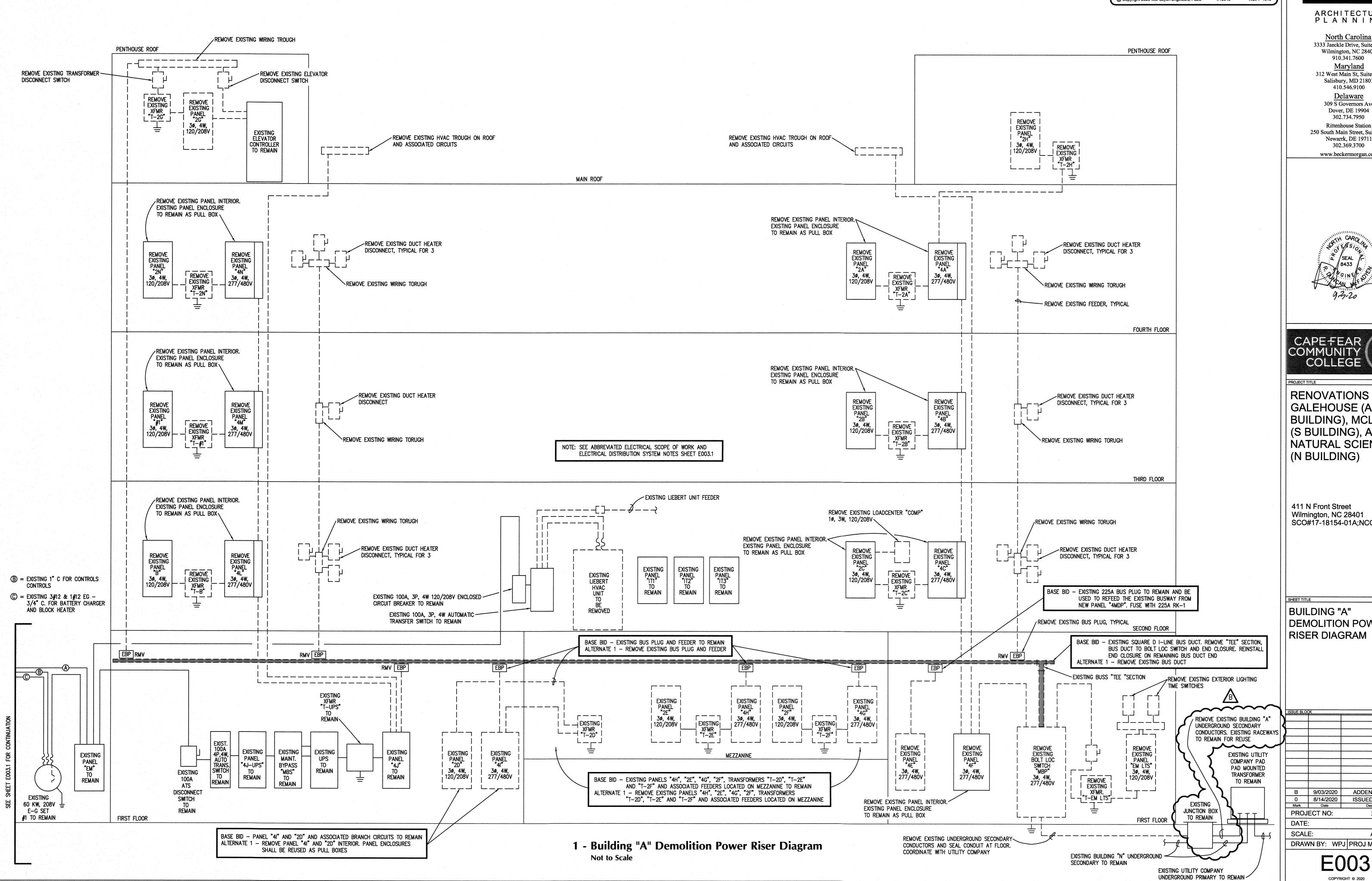
411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

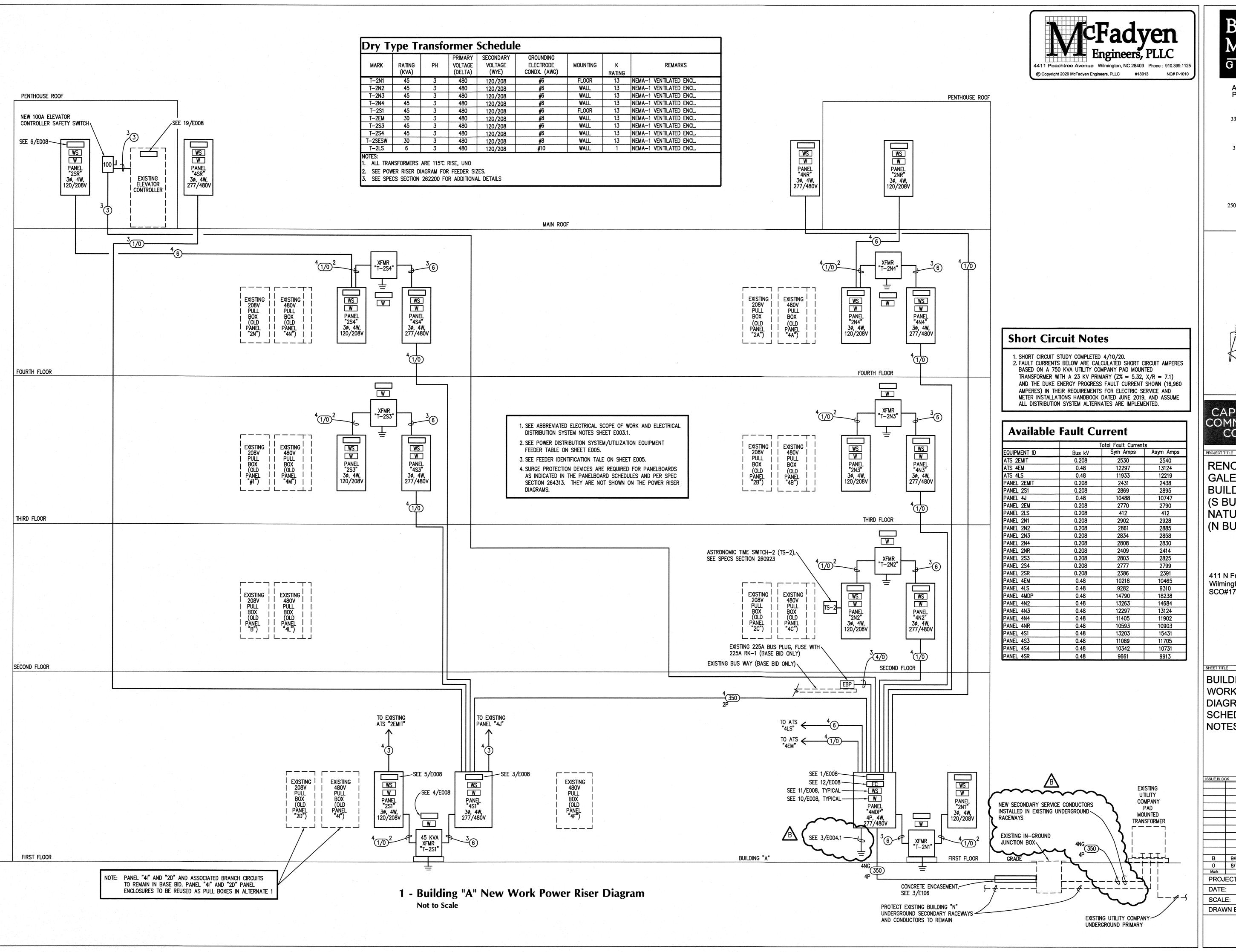
BUILDING "A" DEMOLITION POWER RISER DIAGRAM

B 9/03/2020 ADDENDUM #2 0 8/14/2020 Mark Date ISSUED FOR BID PROJECT NO: 2018023.00 8/14/2020 SCALE: As indicated

DRAWN BY: WPJ PROJ MGR: RDM

E003







ARCHITECTURE PLANNING

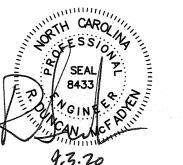
> North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801

410.546.9100 Delaware 309 S Governors Ave Dover, DE 19904

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

302.734.7950

302.369.3700 www.beckermorgan.com





RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

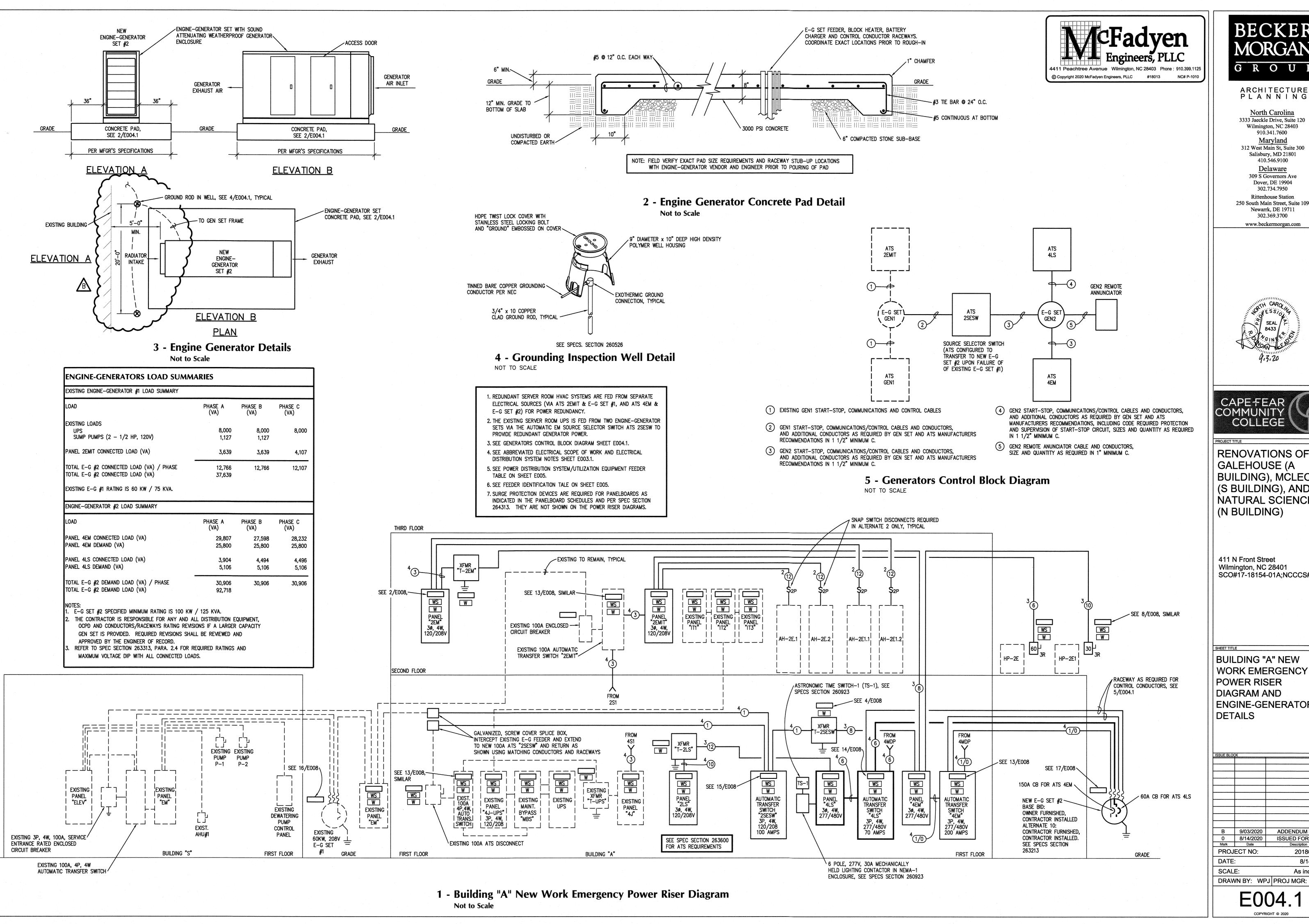
411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

BUILDING "A" NEW WORK POWER RISER DIAGRAM, SCHEDULES AND NOTES

SSUE BLOCK								
	-							
		:						
В	9/03/2020	ADDENDUM #2						
0	8/14/2020	ISSUED FOR BID						
Mark	Date	Description						
PROJ	ECT NO:	2018023.00						
DATE		8/14/2020						

As indicated DRAWN BY: WPJ PROJ MGR: RDM

E004



BECKER G R O U P

ARCHITECTURE

3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 Delaware 309 S Governors Ave Dover, DE 19904

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711



RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

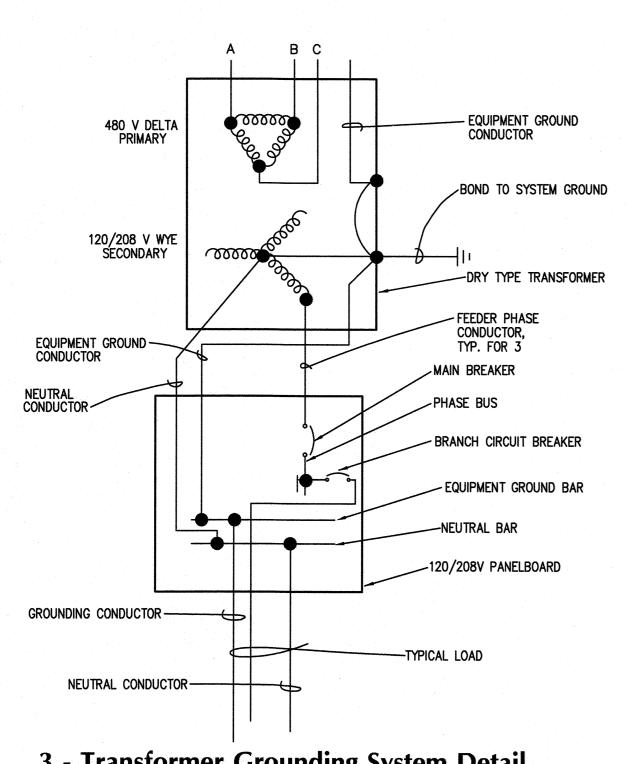
Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

BUILDING "A" NEW WORK EMERGENCY POWER RISER DIAGRAM AND **ENGINE-GENERATOR**

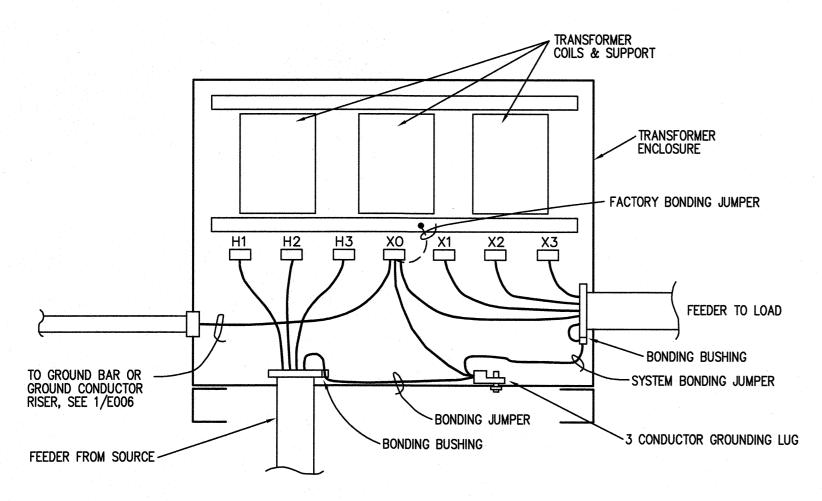
ISSUE BLO	CK	
	·	
В	9/03/2020	ADDENDUM #2
0	8/14/2020	ISSUED FOR BID
Mark	Date	Description
		0040000 00

2018023.00 8/14/2020

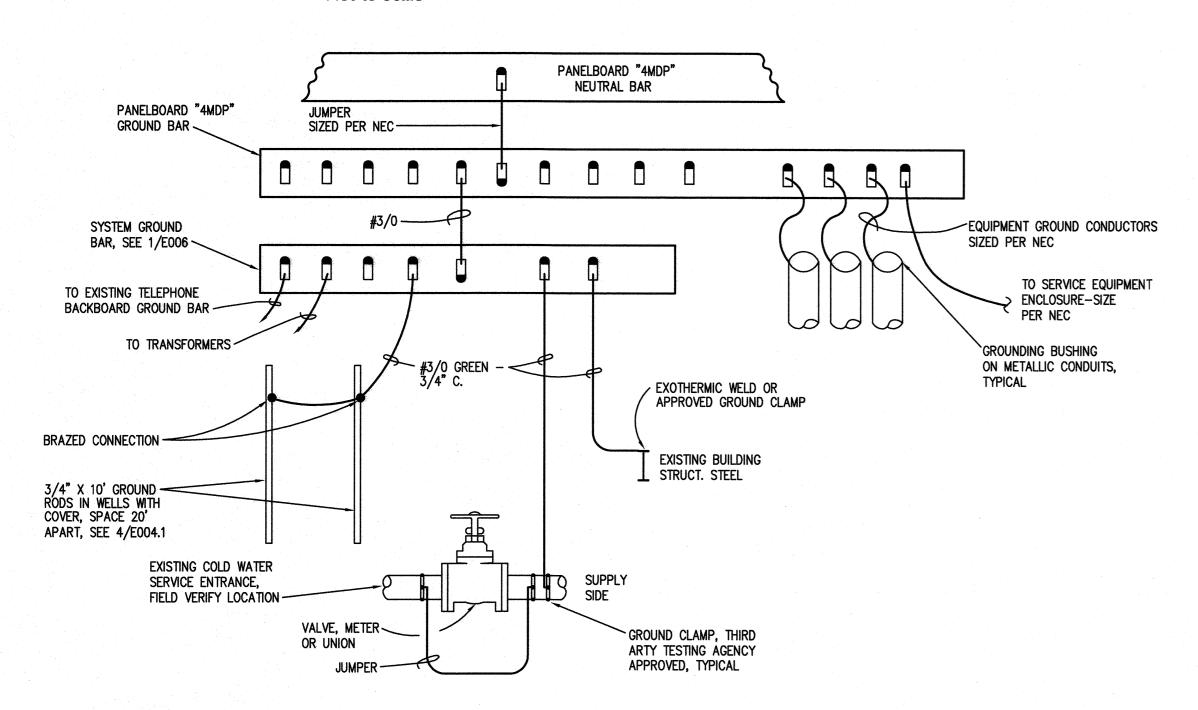
As indicated DRAWN BY: WPJ PROJ MGR: RDM



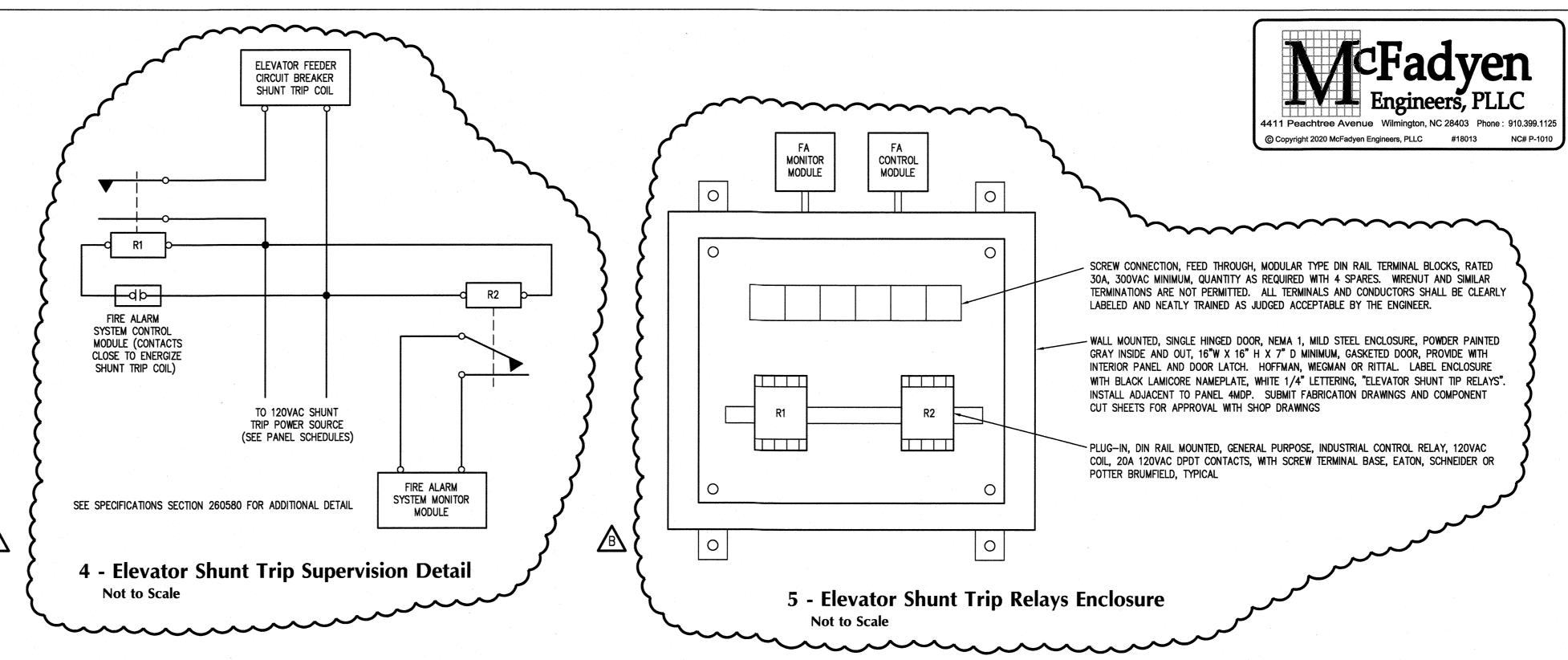
3 - Transformer Grounding System Detail Not to Scale



2 - Dry Type Transformer Bonding Detail Not to Scale



1 - Service Grounding System Detail Not to Scale



(OR 2 PHASE) AND EG CONDUCTOR NUMBER INDICATES PHASE & NEUTRAL NUMBER "3" INDICATES 2 PHASE AND 1 NEUTRAL CONDUCTOR SIZE (OR 3 PHASE) AND EG CONDUCTOR NUMBER "4" INDICATES 3 PHASE CONDUCTORS, NUMBER INDICATES QUANTITY OF PARALLEL 1 NEUTRAL CONDUCTOR AND EG CONDUCTOR. (OVERSIZED) NEUTRAL CONDUCTORS NUMBER "4NG" INDICATES 3 PHASE CONDUCTORS AND 1 NEUTRAL CONDUCTOR. NO CONDUIT SIZE AS REQUIRED BY UPSIZED SYSTEM BONDING JUMPERS, EG CONDUCTOR (SERVICE ENTRANCE) -EQUIPMENT GROUNDING CONDUCTORS OR ISOLATED GROUND CONDUCTOR(S) IF LARGER THAN SHOWN IN THE DISTRIBUTION SYSTEM/MECHANICAL EQUIPMENT FEEDER TABLE INDICATES NUMBER OF PARALLEL SERVICE OR FEEDER CONDUCTOR SETS FOR PARALLEL FEEDERS: NUMBER INDICATES EQUIPMENT GROUNDING CONDUCTORS (PER NEC TABLE 250.166) (DEVIATION FROM E.G. CONDUCTOR SIZE SHOWN IN THE DISTRIBUTION SYSTEM/MECHANICAL EQUIPMENT FEEDER TABLE) FOR DRY TYPE TRANSFORMERS SECONDARY CONDUCTORS: NUMBER INDICATES SYSTEM BONDING JUMPER (PER NEC ART, 250.30) FROM TRANSFORMER TO DOWNSTREAM PANELBOARD/LOAD (DEVIATION FROM E.G. CONDUCTOR SIZE SHOWN IN THE DISTRIBUTION SYSTÉM/MECHANICAL EQUIPMENT FEEDER TABLE) AND

6 - Conductors Identification Detail Not to Scale

NUMBER "2" INDICATES 1 PHASE AND 1 NEUTRAL

PROVIDE THE FOLL	OWING MINIMUM SI	PHASE CIRC		CONDUCTORS:	
CONDUCTOR SIZE	BRANCH CIRCUIT		····	VOLTAGE CIRCUIT LENG	TH (FEET
(AWG)	(AMPERES)	120	208	240	27
#12	15	81	141	163	18
#10	15	135	234	270	31
#8	15	204	355	409	47
#12	20	61	106	122	14
#10	20	101	175	202	23
#8	20	153	266	307	35
				<u> </u>	

MINIMALIA CONDUCTORS SIZE SHART

" -		102	17.7	207	230
	THREE I	PHASE CIRCU	JITS		
CONDUCTOR SIZE	BRANCH CIRCUIT BREAKER TRIP	MAXIMUI		VOLTAGE CIRCUIT LENG	TH (FEET)
(AWG)	(AMPERES)		208	240	480
# 12	15		163	188	377
#10	15		270	312	624
#12	20		122	141	283
# 10	20		202	234	468
# 10	30		135	156	312
#8	30		205	236	473
#8	40		153	177	354
#6	40		239	276	553
#8	50		123	142	283
#6	50	A1. Wa.	191	221	442
# 6	60		159	184	368
#4	60		245	283	567

NOTES:

- . CONDUCTOR LENGTHS ARE BASED ON SINGLE & THREE PHASE, 90% POWER FACTOR LOADS USING 75°C COPPER CONDUCTORS IN EMT RACEWAYS TO ACHIEVE NO MORE THAN 3 PERCENT VOLTAGE DROP.
- CALCULATIONS ASSUME LOADS OF 80% OF CIRCUIT BREAKER TRIP (12A, 16A & 24A, 32A, 40A & 48A, RESPECTIVELY) ARE CONCENTRATED AT THE END OF THE CIRCUITS.
 IF LOAD CHARACTERISTICS DIFFER FROM ABOVE, CALCULATE USING KNOWN CHARACTERISTICS AND SUBMIT CALCULATIONS TO THE ARCHITECT/ENGINEER DOCUMENTING 3% OR LESS VOLTAGE DROP UNDER THE ACTUAL LOAD CONDITIONS.
- WHEN A DEDICATED SINGLE LOAD LESS THAN NOTED ABOVE IS KNOWN, THE CONTRACTOR MAY UTILIZE SMALLER CONDUCTORS UPON SUBMISSION OF VOLTAGE DROP CALCULATIONS DOCUMENTING 3% OR LESS VOLTAGE DROP. THE MINIMUM LOAD SHALL BE ASSUMED TO BE 60% OF THE CB TRIP RATING REGARDLESS OF ACTUAL DEDICATED LOAD.

5. USE THE LARGER OF THE CONDUCTORS INDICATED ON THE DRAWINGS OR THIS TABLE.

Power Distribution System/Utilization Equipment Conductors Identification Table

CONDUCTORS

MAX OCP

CONDUIT SIZE

1011	MITAL COI	CONDOCTORS	OCHDOTT SIZE
2 (12)	20	2#12 & 1#12 EG	1/2"
2 (12) 3 (12)	20	3#12 & 1#12 EG	1/2"
4 (12)	20	4#12 & 1#12 EG	1/2"
2 (10)	30	2#10 & 1#10 EG	1/2"
3 (10)	30	3#10 & 1#10 EG	1/2"
4 (10)	30	4#10 & 1#10 EG	1/2"
2 (8)	50	2#8 & 1#10 EG	1/2"
3 (8)	50	3#8 & 1#10 EG	3/4"
4 (8)	50	4#8 & 1#10 EG	1"
2 6	70	2#6 & 1#8 EG	1"
3 6	70	3#6 & 1#8 EG	1"
4 (6)	70	4#6 & 1#8 EG	1"
2 (4)	90	2#4 & 1#8 EG	1"
3 4	90	3#4 & 1#8 EG	1"
4 4	90	4#4 & 1#8 EG	1 1/4"
2 (3)	100	2#3 & 1#8 EG	1 1/4"
3 (3)	100	3#3 & 1#8 EG	1 1/4"
4 (3)	100	4#3 & 1#8 EG	1 1/4"
2 2	115	2#2 & 1#6 EG	1 1/4"
3 2	115	3#2 & 1#6 EG	1 1/4"
4 (2)	115	4#2 & 1#6 EG	1 1/4"
2 (1)	125	2#1 & 1#6 EG	1 1/4"
3 (1)	125	3#1 & 1#6 EG	1 1/4"
4 (1)	125	4#1 & 1#6 EG	1 1/2"
3 (1/0)	150	3#1/0 & 1#6 EG	1 1/2"
4 (1/0)	150	4#1/0 & 1#6 EG	2"
3 (2/0)	175	3#2/0 & 1#6 EG	2"
4 (2/0)	175	4#2/0 & 1#6 EG	2"
3 (3/0)	200	3#3/0 & 1#6 EG	2"
4 (3/0)	200	4#3/0 & 1#6 EG	2*
3 (4/0)	225	3#4/0 & 1#4 EG	2*
4 (4/0)	225	4#4/0 & 1#4 EG	2 1/2"
3 (250)	250	3#250 KCMIL & 1#4 EG	2 1/2"
4 (250)	250	4#250 KCMIL & 1#4 EG	2 1/2"
3 (300)	300	3#300 KCMIL & 1#4 EG	2 1/2"
4 (300)	300	4#300 KCMIL & 1#4 EG	3"
3 (350)	300	3#350 KCMIL & 1#3 EG	2 1/2"
4 (350)	300	4#350 KCMIL & 1#3 EG	3"
3 (400)	350	3#400 & 1#3 EG	2 1/2"
4 (400)	350	4#400 & 1#3 EG	3"
3 (500)	400	3#500 KCMIL & 1#3 EG	3"
4 (500)	400	4#500 KCMIL & 1#3 EG	3 1/2"
			1

- 1. TABLE IS FOR THHN/THWN INSULATED COPPER CONDUCTORS USING 75°C RATING IN EMT ONLY. OTHER INSULATION AND RACEWAY TYPES MAY REQUIRE LARGER RACEWAYS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE CODE COMPLIANCE AND DESIGN INTENT.
- 2. SOME DRY TYPE TRANSFORMER SECONDARY CONDUCTORS AND PARALLEL CONDUCTORS REQUIRE UPSIZED BONDING JUMPERS, UPSIZED EQUIPMENT GROUND CONDUCTORS AND LARGER RACEWAYS THAN SHOWN IN THIS TABLE. SEE CONDUCTORS IDENTIFICATION
- OVERSIZED AND PARALLELED NEUTRAL CONDUCTORS MAY ALSO REQUIRE LARGER RACEWAYS THAN INDICATED. SEE CONDUCTORS IDENTIFICATION DETAIL.
 CONDUIT SIZING IS CODE MINIMUM. LARGER SIZES MAY BE REQUIRED.
 REFER TO THE CONDUCTORS IDENTIFICATION DETAIL FOR ADDITIONAL INFORMATION.

6. MAX OCP = MAXIMUM OCP DEVICE DESIGN AMPACITY.



ARCHITECTURE PLANNING

North Carolina
3333 Jaeckle Drive, Suite 120
Wilmington, NC 28403
910.341.7600
Maryland
312 West Main St, Suite 300
Salisbury, MD 21801

410.546.9100

<u>Delaware</u>
309 S Governors Ave
Dover, DE 19904
302.734.7950

Rittenhouse Station
250 South Main Street, Suite 109
Newarrk, DE 19711
302.369.3700

www.beckermorgan.com



CAPE FEAR COMMUNITY COLLEGE

PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

EET TITLE

ELECTRICAL DETAILS

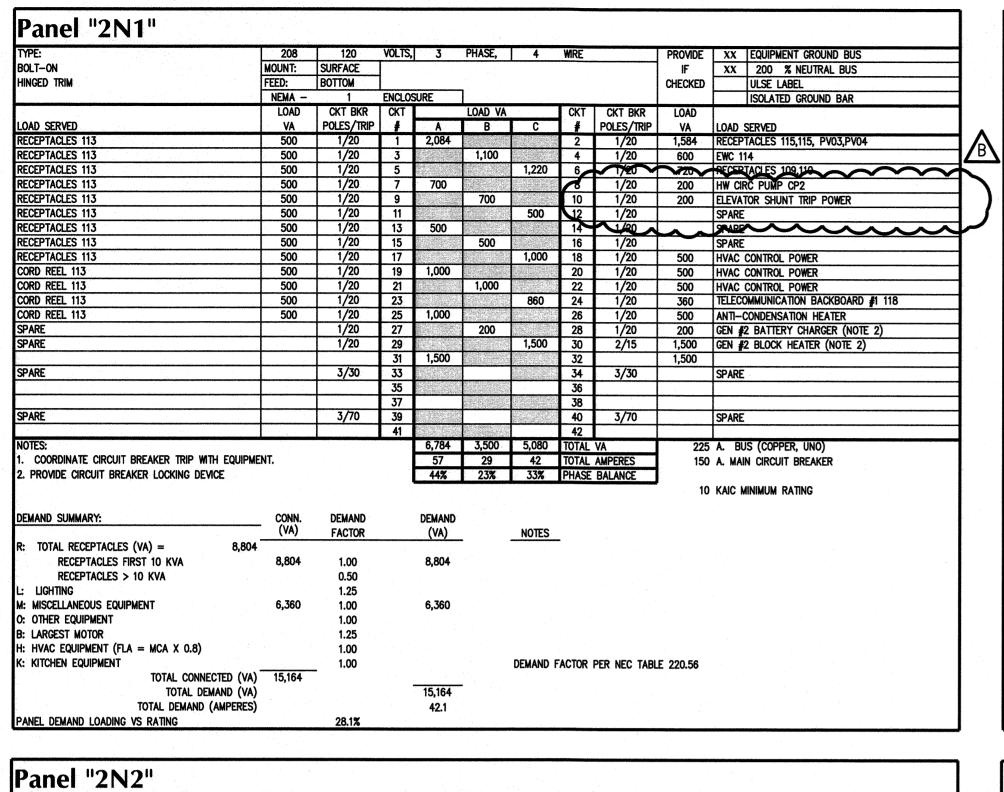
ISSUE BLO	<u>rv</u>	
TOOOL BLO	Ť	
		
		,
		<i>2</i>
В	9/03/2020	ADDENDUM #2
0	8/14/2020	ISSUED FOR BID
Mark	Date	Description
PROJ	ECT NO:	2018023.00

DATE: 8/14/2020

SCALE: As indicated

DRAWN BY: WPJ PROJ MGR: RDM

E005



LOAD CKT BKR CKT LOAD VA CKT CKT BKR LOAD VA POLES/TRIP # A B C # POLES/TRIP VA LOAD SERVED

4,496 4,906 2,489 TOTAL VA

37 41 21 TOTAL AMPERES

38% 41% 21% PHASE BALANCE

DEMAND FACTOR PER NEC TABLE 220.56

DEMAND FACTOR

DEMAND (VA)

779

11,891

33.0

BOLT-ON HINGED TRIM

LOAD SERVED

1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.

TOTAL DEMAND (VA)

TOTAL DEMAND (AMPERES)

TOTAL RECEPTACLES (VA) =

M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR

K: KITCHEN EQUIPMENT

LIGHTING

RECEPTACLES FIRST 10 KVA

RECEPTACLES > 10 KVA

H: HVAC EQUIPMENT (FLA = MCA \times 0.8)

PANEL DEMAND LOADING VS RATING

PROVIDE XX EQUIPMENT GROUND BUS

IF XX 200 % NEUTRAL BUS
CHECKED ULSE LABEL
ISOLATED GROUND BAR

150 A. MAIN CIRCUIT BREAKER

10 KAIC MINIMUM RATING

TYPE:	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX	EQUIPMENT GROUND BUS	
OLT-ON	MOUNT:	SURFACE	T			<u></u>			IF	XX	200 % NEUTRAL BUS	
IINGED TRIM	FEED:	ВОТТОМ	1						CHECKED		ULSE LABEL	
	NEMA -	1	ENCLOS	URE	1						ISOLATED GROUND BAR	
	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD			
OAD SERVED	VA	POLES/TRIP	#	Α	В	С	#	POLES/TRIP	VA	LOAD	SERVED	
XISTING CLASSROOM RECEPTACLES	1,000	1/20	1	2,080			2	1/20	1,080		TACLES 311,311A,311B,3110	,311D
XISTING CLASSROOM RECEPTACLES	1,000	1/20	3		2,080		4	1/20	1,080		TACLES 311,311A,311B,3110	
XISTING CLASSROOM RECEPTACLES	1,000	1/20	5			1,540	6	1/20	540	RECEF	TACLES 310	·
XISTING CLASSROOM RECEPTACLES	1,000	1/20	7	1,540			8	1/20	540		TACLES 309	
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	9	-	1,540		10	1/20	540	RECEF	TACLES 316	· · · · · · · · · · · · · · · · · · ·
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	11			1,540	12	1/20	540		TACLES 317	
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	13	1,600		•	14	1/20	600	EWC 3		
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	15	,	1,000		16	1/20		SPARE		
PARE		1/20	17		•	500	18	1/20	500		CONTROL POWER	
PARE		1/20	19	500			20	1/20	500		CONTROL POWER	
PARE	<u> </u>	1/20	21		500		22	1/20	500		CONTROL POWER	
PARE	-	1/20	23				24	1/20		SPARE		
PARE		1/20	25				26	1/20		SPARE		
PARE		1/20	27		495		28	2/15	495		N.1 & CASSETTES	
PARE	 	1/20	29		100	495	30		495	00 0	(ii di UNOOLI ILO	
nu		1/20	31			400	32		100			
PARE		3/30	33				34	3/30		SPARE		· · · · · · · · · · · · · · · · · · ·
FARE		3/30	35				36	3/30	 	SPANE		
	<u> </u>	 	37				38		<u> </u>			·
PARE	<u> </u>	3/70	39				40	3/70		SPARE		
FARE	_	3/10	41					3/10		SPARE		
OTES:		<u> </u>	41	5,720	5,615	4.075	42 TOTAL	V/4	205	A D	US (COPPER, UNO)	
	*\IT					4,075					• • • • • • • • • • • • • • • • • • • •	
COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME	.N 1.			48	47	34		AMPERES	150	A. MA	IN CIRCUIT BREAKER	
				37%	36%	26%	PHASE	BALANCE				
									10	KAIC	MINIMUM RATING	
EMAND SUMMARY:	CONN.	DEMAND		DEMAND								
	(VA)	FACTOR		(VA)	. .	NOTES	_					
: TOTAL RECEPTACLES (VA) = 12,320												
RECEPTACLES FIRST 10 KVA	10,000	1.00		10,000								
RECEPTACLES > 10 KVA	2,320	0.50		1,160								
LIGHTING		1.25										
: MISCELLANEOUS EQUIPMENT	1,500	1.00		1,500								
: OTHER EQUIPMENT		1.00										
LARGEST MOTOR		1.25										
HVAC EQUIPMENT (FLA = MCA X 0.8)	990	1.00		990								
KITCHEN EQUIPMENT		1.00				DEMAND I	FACTOR	PER NEC TABL	E 220.56			
TOTAL CONNECTED (VA)	14,810		_		_							
TOTAL DEMAND (VA)				13,650								
TOTAL DEMAND (AMPERES)				37.9								
ANEL DEMAND LOADING VS RATING		25.3%										

TYPE:	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE							IF	XX 200 % NEUTRAL BUS
HINGED TRIM	FEED:	BOTTOM	<u> </u>		•				CHECKED	ULSE LABEL
	NEMA -	1	ENCLOS	SURE				1		ISOLATED GROUND BAR
OAD CEDIED	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD	LOAD CERVED
LOAD SERVED	1,000	POLES/TRIP	#	1,540	В	С	#	POLES/TRIP	VA 540	LOAD SERVED RECEPTACLES 410
EXISTING CLASSROOM RECEPTACLES EXISTING CLASSROOM RECEPTACLES	1,000	1/20	1 7	1,040	1,540		2	1/20		RECEPTACLES 410
EXISTING CLASSROOM RECEPTACLES		1/20	3		1,340	1 540	4	1/20		RECEPTACLES 416
EXISTING CLASSROOM RECEPTACLES	1,000		5	1 700		1,540	6	1/20		
	1,000	1/20	7	1,720	4 000		8		720	RECEPTACLES 401
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	9		1,000	4 000	10	1/20		RECEPTACLES ON ROOF
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	11	4 888		1,600	12	1/20	600	EWC 400
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	13	1,000			14	1/20		SPARE
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	15		1,000		16	1/20		SPARE
SPARE		1/20	17			500	18	1/20		HVAC CONTROL POWER
SPARE		1/20	19	500	Seas of action		20	1/20		HVAC CONTROL POWER
SPARE		1/20	21		500		22	1/20	500	HVAC CONTROL POWER
SPARE		1/20	23				24	1/20		SPARE
SPARE		1/20	25				26	1/20		SPARE
SPARE		1/20	27		313		28	2/15		BC-4N.1
SPARE		1/20	29			313	30	<u> </u>	313	
			31				32	· ·		
		3/30	33				34	3/30		SPARE
			35				36			
			37	2,052			38		2,052	
SPD		3/60	39	No. in the	1,600		40	3/60		PANEL 2NR
			41			1,600	42		1,600	
NOTES:				6,812	5,953	5,553	TOTAL	VA	225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME	NT.			57	50	46	TOTAL	AMPERES	150	A. MAIN CIRCUIT BREAKER
				37%	32%	30%	PHASE	BALANCE		
				٠					10	KAIC MINIMUM RATING
DEMAND SUMMARY:	CONN.	DEMAND		DEMAND						
	(VA)	FACTOR		(VA)		NOTES				
R: TOTAL RECEPTACLES (VA) = 10,340							-			
RECEPTACLES FIRST 10 KVA	10,000	1.00		10,000						
	340	0.50		170						
		1.25		565						
RECEPTACLES > 10 KVA	452			3,000						
RECEPTACLES > 10 KVA : LIGHTING	452 3,000	1.00		-,						
RECEPTACLES > 10 KVA : LIGHTING I: MISCELLANEOUS EQUIPMENT	452 3,000	1.00								
RECEPTACLES > 10 KVA : LIGHTING : MISCELLANEOUS EQUIPMENT : OTHER EQUIPMENT		1.00								
RECEPTACLES > 10 KVA : LIGHTING I: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT I: LARGEST MOTOR	3,000	1.00 1.25		828						
RECEPTACLES > 10 KVA : LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)		1.00 1.25 1.00		626		DEMAND 1	EACTOR	DED NEC TAD	E 220 E6	
RECEPTACLES > 10 KVA : LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	3,000 626	1.00 1.25		626		DEMAND F	FACTOR	PER NEC TAB	E 220.56	
RECEPTACLES > 10 KVA : LIGHTING A: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR A: HVAC EQUIPMENT (FLA = MCA X 0.8) C: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	3,000 626 14,418	1.00 1.25 1.00				DEMAND F	FACTOR	PER NEC TAB	.E 220.56	
RECEPTACLES > 10 KVA : LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA) TOTAL DEMAND (VA)	3,000 626 14,418	1.00 1.25 1.00		14,361		DEMAND F	FACTOR	PER NEC TAB	E 220.56	
RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	3,000 626 14,418	1.00 1.25 1.00			- -	DEMAND F	FACTOR	PER NEC TAB	E 220.56	

TYPE:	208	120	VOLTS,	3	PHASE,	4	WRE		PROVIDE	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE	102.0,				******		IF	XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	BOTTOM							CHECKED		ULSE LABEL
	NEMA -	1	ENCLOS	URE	1				OTILOTED		ISOLATED GROUND BAR
	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD		
LOAD SERVED	VA	POLES/TRIP	#	Α	В	С	#	POLES/TRIP	VA	LOAD S	SERVED
SPARE		1/20	1	1,080			2	1/20	1,080	RECEP'	TACLES 212,212A,212B,212C,213,214
SPARE		1/20	3		1,260		4	1/20	1,260	RECEP	TACLES 212,212A,212B,212C,213,214
SPARE		1/20	5			1,500	6	1/20	1,500	MICROV	VAVE 216
SPARE		1/20	7	1,000			8	1/20	1,000	REFRIG	ERATOR 216
SPARE	'	1/20	9		360		10	1/20	360	RECEP"	TACLES 216
SPARE		1/20	11			600	12	1/20	600	EWC 2	
SPARE		1/20	13	1,152			14	1/20	1,152	RECEP	TACLES 204,205,206,PV11
SPARE		1/20	15		720		16	1/20	720	RECEP	TACLES 202,203
			17				18				
SPARE		3/20	19				20	3/30		SPARE	
			21				22				
BC-2S.1 & CASSETTES	406	2/15	23			874	24	2/15	468	AH-2E	.1
	406		25	874			26		468		
BC-2S.2 & CASSETTES	196	2/15	27		665		28	2/15	468	AH-2E	.2
	196		29			665	30		468		
NOTES:				4,106	3,005	3,639	TOTAL				S (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME	NT.		I	34	25	30		AMPERES	100	A. MAII	N CIRCUIT BREAKER
			į	38%	28%	34%	PHASE	BALANCE			
									10	KAIC M	IINIMUM RATING
				4							
DEMAND SUMMARY:	CONN. (VA)	DEMAND		DEMAND							
D TOTAL DECERTION TO (44)		FACTOR		(VA)		NOTES					
R: TOTAL RECEPTACLES (VA) = 4,572		4.00		4.530							
RECEPTACLES FIRST 10 KVA	4,572	1.00		4,572							
RECEPTACLES > 10 KVA		0.50									
L: LIGHTING M: MISCELLANEOUS EQUIPMENT	3,100	1.25		3 100							
M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT	3,100	1.00 1.00		3,100							
B: LARGEST MOTOR		1.25									
H: HVAC EQUIPMENT (FLA = MCA X 0.8)	3,078	1.00		3,078							
K: KITCHEN EQUIPMENT	0,070	1.00		0,070		DEMAND S	ACTOR	PER NEC TABL	F 220 56		
TOTAL CONNECTED (VA)	10,750	. 1.00				DEMAIND I	MOTOR	FER NEC IADL	£ 220.00		
TOTAL CONNECTED (VA)			-	10,750	. ,						
TOTAL DEMAND (AMPERES)				29.8							
IOIAL DEMAND (AMPENES)				ZJ.0							

TYPE:	208	120	VOLTS	. 3	PHASE,	4	WIRE		PROVIDE	XX	EQUIPMENT GROUND BUS	
BOLT-ON	MOUNT:	SURFACE	T :	<u> </u>					IF	XX	100 % NEUTRAL BUS	
HINGED TRIM	FEED:	воттом	1						CHECKED		ULSE LABEL	
	NEMA -	1	ENCLO	SURE	1						ISOLATED GROUND BAR	TO A STATE OF THE PARTY OF THE
*	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD	T		
LOAD SERVED	VA	POLES/TRIP	#	Α	В	С	#	POLES/TRIP	VA	LOAD S	SERVED	
SPARE		1/20	1				2	1/20		SPARE		
SPARE		1/20	3	111.7			4	1/20		SPARE		
SPARE		1/20	- 5			468	6	2/15	468	AH-2E1	1.1	
	3,170		7	3,639			- 8		468			
HP-2E1	3,170	3/50	9		3,639		10	2/15	468	AH-2E1	1.2	
	3,170		11			3,639	12		468			
			13				14					
SPD		3/60	15				16	3/30		SPARE		
	1		17				18					
					A STATE OF THE PARTY OF THE PAR							
				3,639	3,639	4,107	TOTAL		100	A. BUS	S (COPPER, UNO)	
	MENT.	<u> </u>		30	30	34	TOTAL	AMPERES			S (COPPER, UNO) N CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP	MENT.	. 					TOTAL		100	A. MAIN	CIRCUIT BREAKER	
	MENT.			30	30	34	TOTAL	AMPERES	100	A. MAIN	•	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP				30 32%	30	34	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
	CONN.	DEMAND		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP		DEMAND FACTOR		30 32%	30	34	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) =	CONN.	FACTOR		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA	CONN.	FACTOR 1.00		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	·
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA	CONN.	1.00 0.50		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING	CONN.	1.00 0.50 1.25		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT	CONN.	1.00 0.50 1.25 1.00		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT	CONN.	1.00 0.50 1.25 1.00		30 32% DEMAND	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIP DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR	CONN. (VA)	1.00 0.50 1.25 1.00 1.00		30 32% DEMAND (VA)	30	34 36%	TOTAL	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)	CONN.	1.00 0.50 1.25 1.00 1.00 1.25 1.00		30 32% DEMAND	30	34 36% NOTES	TOTAL PHASE	AMPERES BALANCE	100	A. MAIN	CIRCUIT BREAKER	
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	CONN. (VA)	1.00 0.50 1.25 1.00 1.00		30 32% DEMAND (VA)	30	34 36% NOTES	TOTAL PHASE	AMPERES	100	A. MAIN	CIRCUIT BREAKER	
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA	CONN. (VA)	1.00 0.50 1.25 1.00 1.00 1.25 1.00		30 32% DEMAND (VA)	30	34 36% NOTES	TOTAL PHASE	AMPERES BALANCE	100	A. MAIN	CIRCUIT BREAKER	
DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	11,385 A) 11,385 A)	1.00 0.50 1.25 1.00 1.00 1.25 1.00		30 32% DEMAND (VA)	30	34 36% NOTES	TOTAL PHASE	AMPERES BALANCE	100	A. MAIN	CIRCUIT BREAKER	



ARCHITECTURE PLANNING

© Copyright 2020 McFadyen Engineers, PLLC #18013 NC# P-1010

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904 302.734.7950

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

302.369.3700 www.beckermorgan.com

COLLEGE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

SHEET TITLE

ELECTRICAL PANEL SCHEDULES

ISSUE BLOC	CK	
100011010		

В	9/03/2020	ADDENDUM #2
Α	8/28/2020	ADDENDUM #1
0	8/14/2020	ISSUED FOR BID
Mark	Date	Description
PROJ	ECT NO:	2018023.00
DATE		8/14/2020
SCAL	E:	As indicated

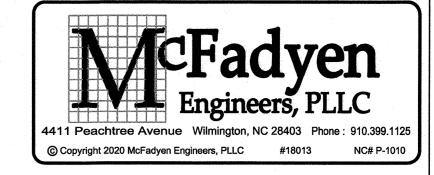
E009.2

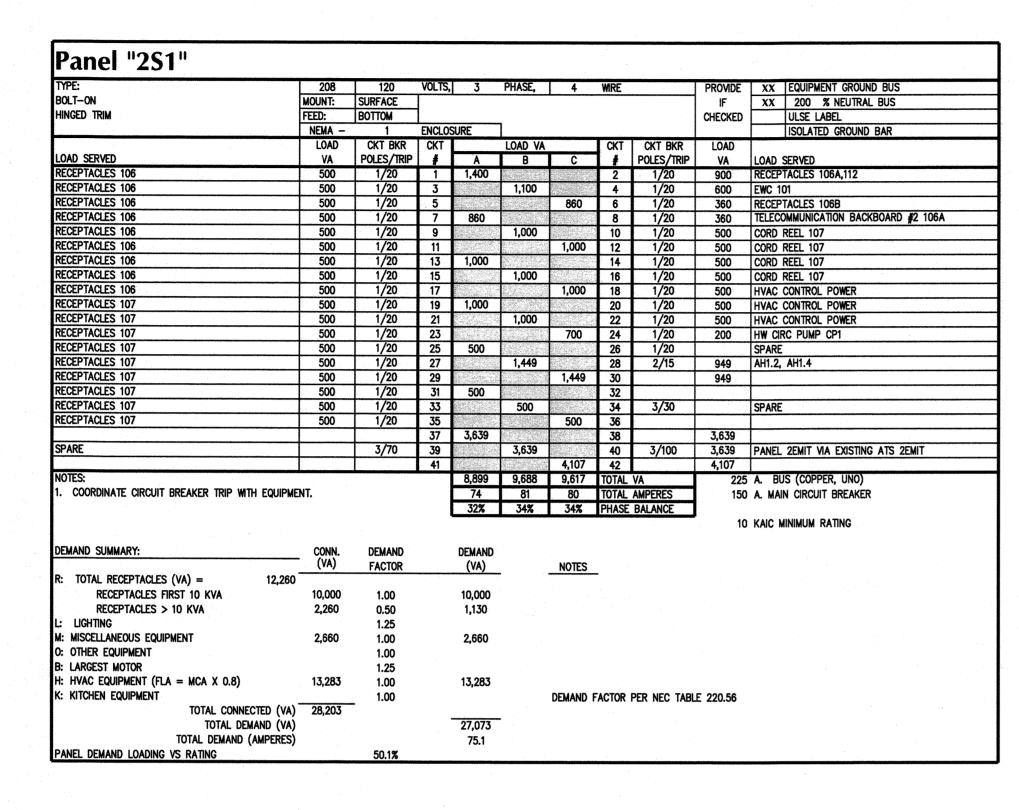
NOTE: ARRANGE PANELBOARD BRANCH CIRCUIT BREAKERS AS SHOWN ON THE ABOVE SCHEDULES. AGREEMENT OF CIRCUIT BREAKER (POLE) NUMBERS WITH THE PANEL SCHEDULES AND ELECTRICAL FLOOR PLANS IS REQUIRED IN ORDER TO AVOID CONFUSION DURING CONSTRUCTION, REDRAWING THE CIRCUITRY FOR RECORD DRAWING PURPOSES AND ACCURATE DOCUMENTATION OF THE AS-BUILT CONDITIONS.

TYPE	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX EQUIPMENT GROUND BUS	
BOLT-ON	MOUNT:	SURFACE	102.0,		1 TITLOL,		WINL		IF	XX 100 % NEUTRAL BUS	-
IINGED TRIM	FEED:	BOTTOM	1						CHECKED	ULSE LABEL	-
	NEMA -	1	ENCLOS	SURF	1				CHECKED	ISOLATED GROUND BAR	\dashv
	LOAD	CKT BKR	CKT	JONE	LOAD VA		CKT		-949-	ISOLATED GROOND BAR	
OAD SERVED	VA	POLES/TRIP	#	A	В	C	1	POLES/TRIP	VA	LOAD SERVED	7
RE ALARM CONTROL PANEL	500	1/20	1	500	1		2	1/20		SPARE	\dashv
AC POWER SUPPLY FIRST FLOOR	200	1/20	3		400		4	1/20	200	ELEVATOR CAB LIGHTS	\dashv
AC POWER SUPPLY SECOND FLOOR	200	1/20	5			1,200		1/20		GENERACIE	
AC POWER SUPPLY THIRD FLOOR	200	1/20	7	400			8	1/20	200	GEN #2 HOUSING LIGHTING	
IAC POWER SUPPLY FOURTH FLOOR	200	1/20	9		200		10	1/20		SPARE	_
SPARE		1/20	11				12	1/20		SPARE	
SPARE		1/20	13				14	1/20		SPARE	
SPARE		1/20	15				16	1/20		SPARE	_
		1/20	17			3,000	18	1/20		SPARE	_
PARE		1/20									
IOTES:	I CIDCUIT			900	600	1,200	TOTAL			A. BUS (COPPER, UNO)	
NOTES: 1. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL		BREAKERS.		8	5	10	TOTAL	AMPERES			
NOTES: I. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL		BREAKERS.				10	TOTAL		30	A. BUS (COPPER, UNO)	
IOTES: . PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED		BREAKERS.		8	5	10	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: I. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED.	. USE SPA	BREAKERS. RE CIRCUIT DEMAND		8 33% DEMAND	5	10	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: 1. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY:	. USE SPA	Breakers. Re circuit		8 33%	5	10	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: 1. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY:	. USE SPA	BREAKERS. RE CIRCUIT DEMAND		8 33% DEMAND	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: 1. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY:	. USE SPA	BREAKERS. RE CIRCUIT DEMAND		8 33% DEMAND	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: 1. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 1,000	CONN.	BREAKERS. RE CIRCUIT DEMAND FACTOR 1.00 0.50		8 33% DEMAND (VA)	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: I. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL 2. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA	CONN.	BREAKERS. RE CIRCUIT DEMAND FACTOR 1.00		8 33% DEMAND (VA) 1,000 500	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: I. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL I. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING	CONN. (VA)	BREAKERS. RE CIRCUIT DEMAND FACTOR 1.00 0.50		8 33% DEMAND (VA) 1,000	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: . PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR ALE. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: C: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING M: MISCELLANEOUS EQUIPMENT	CONN. (VA) 1,000	DEMAND FACTOR 1.00 0.50 1.25		8 33% DEMAND (VA) 1,000 500	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
IOTES: . PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR ALE. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: IN TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING IN MISCELLANEOUS EQUIPMENT OTHER EQUIPMENT	CONN. (VA) 1,000	DEMAND FACTOR 1.00 0.50 1.25 1.00		8 33% DEMAND (VA) 1,000 500	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
IOTES: . PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR ALE. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: IN TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING IN MISCELLANEOUS EQUIPMENT OF THE TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES > 10 KVA LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING	CONN. (VA) 1,000	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00		8 33% DEMAND (VA) 1,000 500	5	10 44%	TOTAL	AMPERES	30	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR ALE QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES FIRST 10 KVA LIGHTING MISCELLANEOUS EQUIPMENT OTHER EQUIPMENT LARGEST MOTOR HYAC EQUIPMENT (FLA = MCA X 0.8) KITCHEN EQUIPMENT	CONN. (VA) 1,000 400 1,300	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25		8 33% DEMAND (VA) 1,000 500	5	10 44% NOTES	TOTAL	AMPERES	30 10	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR ALE QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT LARGEST MOTOR M: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	CONN. (VA) 1,000 400 1,300	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.25 1.00 1.25 1.00		8 33% DEMAND (VA) 1,000 500 1,300	5	10 44% NOTES	TOTAL	AMPERES BALANCE	30 10	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
NOTES: I. PROVIDE CIRCUIT BREAKER HANDLE LOCKS FOR AL I. QUANTITY OF NAC POWER SUPPLIES IS ESTIMATED BREAKERS IF ADDITIONAL LOADS ARE REQUIRED. DEMAND SUMMARY: II. TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA II. LIGHTING III. MISCELLANEOUS EQUIPMENT III. OTHER EQUIPMENT III. LARGEST MOTOR III. HVAC EQUIPMENT (FLA = MCA X 0.8) III. KITCHEN EQUIPMENT	CONN. (VA) 1,000 400 1,300	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.25 1.00 1.25 1.00		8 33% DEMAND (VA) 1,000 500	5	10 44% NOTES	TOTAL	AMPERES BALANCE	30 10	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	
R: TOTAL RECEPTACLES (VA) = 1,000 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT 0: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	CONN. (VA) 1,000 400 1,300	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.25 1.00 1.25 1.00		8 33% DEMAND (VA) 1,000 500 1,300	5	10 44% NOTES	TOTAL	AMPERES BALANCE	30 10	A. BUS (COPPER, UNO) A. MAIN CIRCUIT BREAKER	

YPE:	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX EQUIPMENT GROUND BUS
OLT-ON	MOUNT:	SURFACE		<u> </u>					IF	XX 100 % NEUTRAL BUS
INGED TRIM	FEED:	BOTTOM							CHECKED	ULSE LABEL
	NEMA -	1	ENCLO	SURE	1					ISOLATED GROUND BAR
	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD	
OAD SERVED	VA	POLES/TRIP	#	A	В	С	#	POLES/TRIP	VA	LOAD SERVED
PARE		1/20	1	452			2	1/20	452	LIGHTS AND RECEPTACLES ON ROOF
ARE		1/20	3				4	1/20		SPARE
PARE	-	1/20	5				6	1/20		SPARE
PARE		1/20	7				8	1/20		SPARE
PARE		1/20	9				10	1/20		SPARE
PARE		1/20	11				12	1/20		SPARE
PARE		1/20	13				14	1/20		SPARE
PARE		1/20	15				16	1/20		SPARE
PARE		1/20	17			500	18	1/20	500	HVAC CONTROL POWER
PARE		1/20	19	500			20	1/20	500	HVAC CONTROL POWER
PARE		1/20	21		500		22	1/20_	500	HVAC CONTROL POWER
PARE		1/20	23				24	1/20	V V	SPARE
PARE		1/20	25	1,100			26		1,100	
PARE		1/20	27		1,100		28	3/15		UNIT HEATER EUH2
PARE		1/20	29			1,100	30		1,100	
OTES:				2,052	1,600	1,600	TOTAL		→	A. BUS (COPPER, UNU)
COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME	NT.			17	13	13		AMPERES	60	A. MAIN CIRCUIT BREAKER
				39%	30%	30%	EDMVCE	BALANCE		
				00%	00%		THASE		10	KAIC MINIMUM RATING
FMAND SIMMARY	CONN	DEMAND			00.2		FIRSE		10	KAIC MINIMUM RATING
EMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR		DEMAND	0012		FINGL		10	KAIC MINIMUM RATING
		DEMAND FACTOR	-			NOTES	-		10	KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) =		FACTOR	***************************************	DEMAND			-		10	KAIC MINIMUM RATING
: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA		FACTOR 1.00	-	DEMAND	-		FIRSE		10	KAIC MINIMUM RATING
: TOTAL RECEPTACLES (VA) =		1.00 0.50		DEMAND			FIRSE		10	KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING	(VA) 452	1.00 0.50 1.25		DEMAND (VA)	-		FIRSE		10	KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING MISCELLANEOUS EQUIPMENT	(VA)	1.00 0.50 1.25 1.00		DEMAND (VA)	•		TIMOL		10	KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING MISCELLANEOUS EQUIPMENT OTHER EQUIPMENT	(VA) 452	1.00 0.50 1.25 1.00 1.00		DEMAND (VA)	-		TIMOL		10	KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING MISCELLANEOUS EQUIPMENT OTHER EQUIPMENT LARGEST MOTOR	452 1,500	1.00 0.50 1.25 1.00 1.00 1.25		DEMAND (VA) 565 1,500	-				10	KAIC MINIMUM RATING
: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA : LIGHTING : MISCELLANEOUS EQUIPMENT : OTHER EQUIPMENT : LARGEST MOTOR : HVAC EQUIPMENT (FLA = MCA X 0.8)	(VA) 452	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA)	•	NOTES	-			KAIC MINIMUM RATING
TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING MISCELLANEOUS EQUIPMENT OTHER EQUIPMENT LARGEST MOTOR HVAC EQUIPMENT (FLA = MCA X 0.8) KITCHEN EQUIPMENT	452 1,500	1.00 0.50 1.25 1.00 1.00 1.25		DEMAND (VA) 565 1,500	-	NOTES	-	PER NEC TABL		KAIC MINIMUM RATING
: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA : LIGHTING : MISCELLANEOUS EQUIPMENT : OTHER EQUIPMENT : LARGEST MOTOR : HVAC EQUIPMENT (FLA = MCA X 0.8) : KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	452 1,500	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA) 565 1,500	-	NOTES	-			KAIC MINIMUM RATING
: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA : LIGHTING : MISCELLANEOUS EQUIPMENT : OTHER EQUIPMENT : LARGEST MOTOR : HVAC EQUIPMENT (FLA = MCA X 0.8) : KITCHEN EQUIPMENT	452 1,500	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA) 565 1,500	-	NOTES	-			KAIC MINIMUM RATING

DRAWN BY: WPJ PROJ MGR: RDM





BOLT ON	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX		
BOLT-ON	MOUNT:	SURFACE							IF	XX		
HINGED TRIM	FEED:	ВОТТОМ	F1101 00		7				CHECKED	<u></u>	ULSE LABEL	
	NEMA -	1	ENCLOS	URE	<u> </u>		T			<u> </u>	ISOLATED GROUND BAR	
	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD			
LOAD SERVED	VA	POLES/TRIP	#	A	В	С	#	POLES/TRIP	VA		SERVED	
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	1	1,540			2	1/20	540		PTACLES 407	
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	3		1,540		4	1/20	540		PTACLES 408	
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	5			1,540	6	1/20	540		PTACLES 409	
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	7	1,540			8	1/20	540		PTACLES 402	·
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	9		1,600		10	1/20	600	EWC		
EXISTING CLASSROOM O/H PROJECTOR	1,000	1/20	11			1,000	12	1/20			PTACLES ON ROOF	
SPARE		1/20	13				14	1/20		SPAR		
SPARE		1/20	15				16	1/20		SPAR	Æ	
SPARE		1/20	17			500	18	1/20	500	HVAC	CONTROL POWER	
SPARE		1/20	19	500			20	1/20	500		CONTROL POWER	
SPARE		1/20	21		500		22	1/20	500		CONTROL POWER	
SPARE		1/20	23				24	1/20		SPAR		
SPARE		1/20	25				26	1/20		SPAR		**************************************
SPARE		1/20	27		315		28	2/15	315		4S.1 & CASSETTES	
SPARE		1/20	29			315	30		315	T		
SPARE			31	arch for services			32			1		
		3/30	33				34	3/30		SPAR	RE .	
CDARE		1	35				36			† 		
SPARE									L			
SPARE				600					600			
		3/60	37	600	1,452		38	3/70	600 1,452	PANE	TI 2SR	
SPD		3/60	37 39	600	1,452	1,200	38 40	3/70	1,452	PANE	IL 2SR	
		3/60	37			1,200 4.555	38 40 42		1,452 1,200			
SPD NOTES:	NT.	3/60	37 39	4,180	5,407	4,555	38 40 42 TOTAL	VA .	1,452 1,200 225	A. E	BUS (COPPER, UNO)	
SPD	NT.	3/60	37 39	4,180 35	5,407 45	4,555 38	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225	A. E		
SPD NOTES:	NT.	3/60	37 39	4,180	5,407	4,555	38 40 42 TOTAL TOTAL	VA .	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES:	NT.	3/60	37 39	4,180 35	5,407 45	4,555 38	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO)	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME			37 39	4,180 35 30%	5,407 45	4,555 38	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES:	CONN.	DEMAND	37 39	4,180 35 30%	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY:			37 39	4,180 35 30%	5,407 45	4,555 38	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160	CONN. (VA)	DEMAND FACTOR	37 39	4,180 35 30% DEMAND (VA)	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA	CONN.	DEMAND FACTOR	37 39	4,180 35 30%	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA	CONN. (VA) 8,160	DEMAND FACTOR 1.00 0.50	37 39	4,180 35 30% DEMAND (VA) 8,160	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING	CONN. (VA) 8,160	DEMAND FACTOR 1.00 0.50 1.25	37 39	4,180 35 30% DEMAND (VA) 8,160 690	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT	CONN. (VA) 8,160	DEMAND FACTOR 1.00 0.50 1.25 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT	CONN. (VA) 8,160	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160 690	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
SPD NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR	CONN. (VA) 8,160 552 3,800	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25	37 39	4,180 35 30% DEMAND (VA) 8,160 690 3,800	5,407 45	4,555 38 32%	38 40 42 TOTAL TOTAL	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)	CONN. (VA) 8,160	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160 690	5,407 45	4,555 38 32% NOTES	38 40 42 TOTAL TOTAL PHASE	VA AMPERES BALANCE	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT 0: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	CONN. (VA) 8,160 552 3,800	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25	37 39	4,180 35 30% DEMAND (VA) 8,160 690 3,800	5,407 45	4,555 38 32% NOTES	38 40 42 TOTAL TOTAL PHASE	VA AMPERES	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT 0: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	CONN. (VA) 8,160 552 3,800	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160 690 3,800	5,407 45 38%	4,555 38 32% NOTES	38 40 42 TOTAL TOTAL PHASE	VA AMPERES BALANCE	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA) TOTAL DEMAND (VA)	CONN. (VA) 8,160 552 3,800	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160 690 3,800 1,631	5,407 45 38%	4,555 38 32% NOTES	38 40 42 TOTAL TOTAL PHASE	VA AMPERES BALANCE	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	
NOTES: 1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME DEMAND SUMMARY: R: TOTAL RECEPTACLES (VA) = 8,160 RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT 0: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	CONN. (VA) 8,160 552 3,800	DEMAND FACTOR 1.00 0.50 1.25 1.00 1.00 1.25 1.00	37 39	4,180 35 30% DEMAND (VA) 8,160 690 3,800	5,407 45 38%	4,555 38 32% NOTES	38 40 42 TOTAL TOTAL PHASE	VA AMPERES BALANCE	1,452 1,200 225 150	A. E	BUS (COPPER, UNO) AIN CIRCUIT BREAKER	

Panel "2S4"

TYPE:	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	l vv	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE	VOL 13,	<u> </u>	FINASE,	4	WIKE		4	XX	200 % NEUTRAL BUS
HINGED TRIM	FEED:	BOTTOM	l						IF CHECKED	_ <u> </u>	ULSE LABEL
IIIIOLD IIII	NEMA -	1	ENCLOS	NIDE	1				CHECKED	<u> </u>	ISOLATED GROUND BAR
	LOAD	CKT BKR	CKT	JUNE	LOAD VA	,	CKT	CKT BKR	LOAD	 	ISOLATED GROUND BAR
LOAD SERVED	VA	POLES/TRIP	#	A	B	С	4	POLES/TRIP	VA	LOAD	SERVEN
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	1	2,080			2	1/20			TACLES 307,307A,307B,307C,307D
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	3		2,080	4	4	1/20	1,080		TACLES 307,307A,307B,307C,307D
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	5			1,540	6	1/20	540		TACLES 308
EXISTING CLASSROOM RECEPTACLES	1,000	1/20	7	1,540			8	1/20	540		TACLES 302
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	9	,	1,540		10	1/20	540		TACLES 301
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	11			1,600	12	1/20	600	EWC 3	
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	13	1,000			14	1/20		SPARE	
XISTING CLASSROOM O/H PROJECTOR	1,000	1/20	15		1,000		16	1/20		SPARE	
SPARE		1/20	17			500	18	1/20	500		CONTROL POWER
SPARE		1/20	19	500			20	1/20	500		CONTROL POWER
SPARE		1/20	21		500		22	1/20			CONTROL POWER
SPARE		1/20	23				24	1/20		SPARE	
SPARE		1/20	25				26	1/20		SPARE	
SPARE		1/20	27		322		28	2/15	322		.1 & CASSETTES
SPARE		1/20	29			322	30		322		
			31				32		100	1	
SPARE		3/30	33				34	3/30		SPARE	
		1	35				36			T .	
			37				38				
SPARE		3/70	39				40	3/70		SPARE	
			41				42				
NOTES:				5,120	5,442	3,962	TOTAL	VA	225	A. Bl	IS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMI	ENT.			43	45	33	TOTAL	AMPERES	150	A. MAI	N CIRCUIT BREAKER
				35%	37%	27%	PHASE	BALANCE			
			•						10	KAIC N	INIMUM RATING
DEMAND SUMMARY:	CONN.	DEMAND		DEMAND							
	(VA)	FACTOR		(VA)		NOTES	_				
R: TOTAL RECEPTACLES (VA) = 11,780							_				
RECEPTACLES FIRST 10 KVA	10,000	1.00		10,000							
	1,780	0.50		890							
RECEPTACLES > 10 KVA		1.25									
: LIGHTING		,		2,100							
LIGHTING M: MISCELLANEOUS EQUIPMENT	2,100	1.00		2,100							
LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT	2,100			2,100							
LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR	2,100	1.00		2,100							
LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR	2,100 644	1.00 1.00		644							
LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)		1.00 1.00 1.25				DEMAND F	ACTOR	PER NEC TAB	E 220.56		
LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)	644	1.00 1.00 1.25 1.00				DEMAND F	ACTOR	PER NEC TABI	E 220.56		
LI: LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	644	1.00 1.00 1.25 1.00		644		DEMAND F	ACTOR	PER NEC TABI	E 220.56		
L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	644 14,524	1.00 1.00 1.25 1.00			• • • • • • • • • • • • • • • • • • •	DEMAND F	ACTOR	PER NEC TABI	E 220.56		

TYPE:	208	120	VOLTS,	3	PHASE,	4	WIRE		PROVIDE	XX EQUIPMENT GROUND BUS	1
BOLT-ON	MOUNT:	SURFACE		***************************************					lF	XX 100 % NEUTRAL BUS	1
HINGED TRIM	FEED:	BOTTOM							CHECKED	ULSE LABEL	1
	NEMA -	1	ENCLO	SURE						ISOLATED GROUND BAR	
	LOAD	CKT BKR	CKT		LOAD VA		CKT	CKT BKR	LOAD		1
LOAD SERVED	VA	POLES/TRIP	#	Α	В	С	#	POLES/TRIP	VA	LOAD SERVED	J
SPARE		1/20	1	100			2	1/20	100	ELEVATOR CAB LIGHTS]
SPARE		1/20	3		452		4	1/20	452	LIGHTS AND RECEPTACLES ON ROOF	
SPARE		1/20	5				6	1/20		SPARE]
SPARE		1/20	7				8	1/20		SPARE	
SPARE		1/20	9				10	1/20		SPARE]
SPARE		1/20	11				12	1/20		SPARE	1
SPARE		1/20	13			ly children	14	1/20		SPARE	1
SPARE		1/20	15	7			16	1/20		SPARE	
SPARE		1/20	17			500	18	1/20	500	HVAC CONTROL POWER]
SPARE		1/20	19	500			20	1/20	280	THAC CONTROL FOWER	1
SPARE		1/20	21		500		22	1/20	500	HVAC CONTROL POWER	
SPARE		1/20	23				24	1/20		SPARE	1)
SPARE		1/20	25			V	26_	1/20		SPARE	V
SPARE		1/20	27		500		28	2	500	EXISTING ELEVATOR MACRINE ROOM BALLOW	7
SPARE	1.5	1/20	29			500	30		500]
NOTES:				600	1,452	1,000	TOTAL	VA	60	A. BUS (COPPER, UNO)	1
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPME	NT.			5	12		TOTAL	AMPERES	60	A. MAIN CIRCUIT BREAKER	
											•
				20%	48%	33%	PHASE	BALANCE			1
				20%	48%	33%	PHASE	BALANCE	10	KAIC MINIMUM RATING	
					48%	33%	PHASE	BALANCE	10	KAIC MINIMUM RATING	
DEMAND SUMMARY:	CONN.	DEMAND		DEMAND	48%	33%	PHASE	BALANCE	10	KAIC MINIMUM RATING	
	CONN. (VA)	DEMAND FACTOR			48%	NOTES	PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) =		FACTOR		DEMAND	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA		FACTOR 1.00		DEMAND	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) =	(VA)	1.00 0.50		DEMAND	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA : LIGHTING	552	FACTOR 1.00		DEMAND	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING M: MISCELLANEOUS EQUIPMENT	(VA)	1.00 0.50		DEMAND (VA)	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA :: LIGHTING A: MISCELLANEOUS EQUIPMENT	552	1.00 0.50 1.25 1.00 1.00		DEMAND (VA)	48%		PHASE	BALANCE	10	KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA :: LIGHTING A: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR	552	1.00 0.50 1.25 1.00		DEMAND (VA)	48%		PHASE	BALANCE	10) KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA :: LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8)	552	1.00 0.50 1.25 1.00 1.00		DEMAND (VA)	48%		PHASE	BALANCE	10	O KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT	552 1,500	1.00 0.50 1.25 1.00 1.00 1.25		DEMAND (VA) 690 1,500	48%	NOTES		BALANCE PER NEC TABI		KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA :: LIGHTING M: MISCELLANEOUS EQUIPMENT D: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	552 1,500	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA) 690 1,500	48%	NOTES				O KAIC MINIMUM RATING	
R: TOTAL RECEPTACLES (VA) = RECEPTACLES FIRST 10 KVA RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA) TOTAL DEMAND (VA)	552 1,500	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA) 690 1,500	48%	NOTES				O KAIC MINIMUM RATING	
RECEPTACLES > 10 KVA L: LIGHTING M: MISCELLANEOUS EQUIPMENT O: OTHER EQUIPMENT B: LARGEST MOTOR H: HVAC EQUIPMENT (FLA = MCA X 0.8) K: KITCHEN EQUIPMENT TOTAL CONNECTED (VA)	552 1,500	1.00 0.50 1.25 1.00 1.00 1.25 1.00		DEMAND (VA) 690 1,500	48%	NOTES				O KAIC MINIMUM RATING	

NOTE: ARRANGE PANELBOARD BRANCH CIRCUIT BREAKERS AS SHOWN ON THE ABOVE SCHEDULES. AGREEMENT OF CIRCUIT BREAKER (POLE) NUMBERS WITH THE PANEL SCHEDULES AND ELECTRICAL FLOOR PLANS IS REQUIRED IN ORDER TO AVOID CONFUSION DURING CONSTRUCTION, REDRAWING THE CIRCUITRY FOR RECORD DRAWING PURPOSES AND ACCURATE DOCUMENTATION OF THE AS-BUILT CONDITIONS.



ARCHITECTURE PLANNING

North Carolina
3333 Jaeckle Drive, Suite 120
Wilmington, NC 28403
910.341.7600
Maryland
312 West Main St, Suite 300
Salisbury, MD 21801
410.546.9100

Delaware
309 S Governors Ave
Dover, DE 19904
302.734.7950

Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com



CAPETEAR	
COMMUNITY	
COLLEGE	

PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

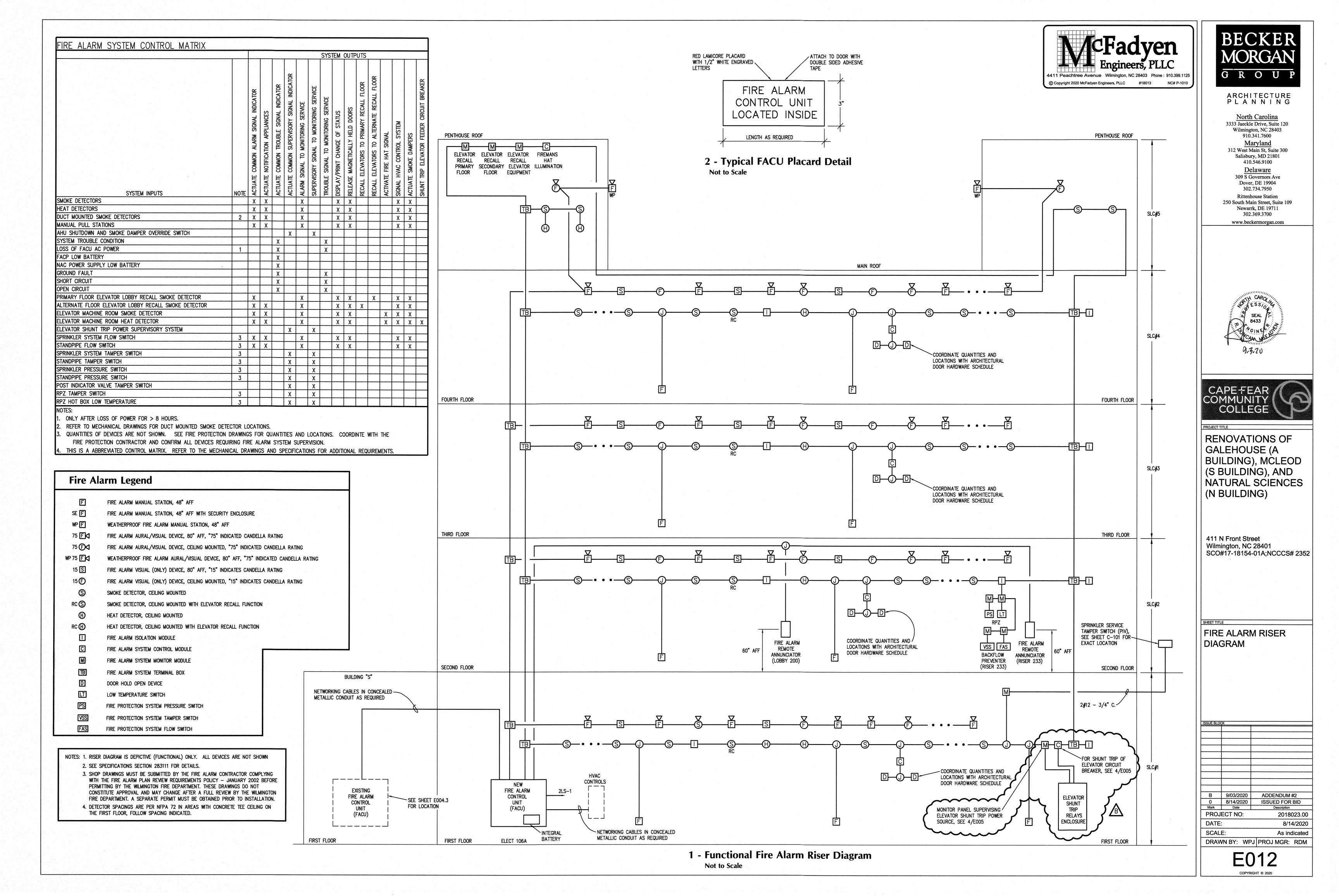
SHEET TITLE

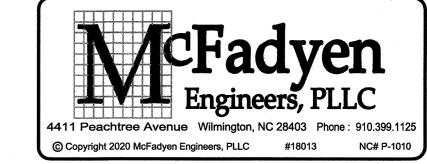
ELECTRICAL PANEL SCHEDULES

<u> </u>		
ISSUE BLOC	Ж	
В	9/03/2020	ADDENDUM #2
0	8/14/2020	ISSUED FOR BID
Mark	Date	Description
PROJ	ECT NO:	2018023.00
DATE		8/14/2020

SCALE: As indicated
DRAWN BY: WPJ PROJ MGR: RDM

E009.3





MARK	DESCRIPTION.	SIZE/APERTURE	VOLTS	LAMPS	WATTS	LENS	TRIM/DOOR	TRIM COLOR	MOUNTING HEIGHT	REMARKS	MANUFACTURER	NOTE 5 APPLIE
L1	LAY-IN GRID LED	2'x4'	UNIV.	7200 LUMEN	54	ADP DIFFUSER	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER	LITHONIA "2BLT" SERIES	
				3500K LED			STEEL		MOUNTED		COLUMBIA "LCAT24" SERIES	·
1.45	1.44 111 0010 1.50									40% 0 404 0740 00440 00450 54044 00	DAY-BRITE "2FGG" SERIES	
L1E	LAY-IN GRID LED	2'x4'	UNIV.	7200 LUMEN	54	ADP DIFFUSER	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER, E10WLCP	LITHONIA "2BLT" SERIES	
				3500K LED			STEEL		MOUNTED	90 MINUTE BATTERY BACKUP WITH SELF DIAGNOSTICS AND TEST/STATUS LIGHT	COLUMBIA "LCAT24" SERIES	
L2	LAY-IN GRID LED	2'x4'	UNIV.	6000 LUMEN	49	ADP DIFFUSER	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER	DAY-BRITE "2FGG" SERIES LITHONIA "2BLT" SERIES	
lustica.	LAT IN OND LED	2 **	ONIV.	3500K LED	45	AUF DIFFUSER	STEEL	WHILE	MOUNTED	10%, 0 104 0210 DIMINING DITIYER	COLUMBIA "LCAT24" SERIES	
				3300K LLD			SIELE		MOONIED		DAY-BRITE "2FGG" SERIES	
L2E	LAY-IN GRID LED	2'x4'	UNIV.	6000 LUMEN	49	ADP DIFFUSER	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER, E10WLCP	LITHONIA "2BLT" SERIES	
			0 1,,,,,	3500K LED		ADI DIII OOLK	STEEL		MOUNTED	90 MINUTE BATTERY BACKUP WITH SELF DIAGNOSTICS	COLUMBIA "LCAT24" SERIES	
										AND TEST/STATUS LIGHT	DAY-BRITE "2FGG" SERIES	
L3	LAY-IN GRID LED	2'x4'	UNIV.	4800 LUMEN	36	0.125" ACRYLIC	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER	LITHONIA "2GTL" SERIES	
				3500K LED		PRISMATIC	STEEL		MOUNTED		COLUMBIA "LJT24" SERIES	
<u> </u>											DAY-BRITE "2TG" SERIES	
L3A	LAY-IN GRID LED	2'x2'	UNIV.	4000 LUMEN	30	0.125" ACRYLIC	FLUSH	WHITE	RECESSED GRID	10%, 0-10V GZ10 DIMMING DRIVER	LITHONIA "2GTL" SERIES	
				3500K LED		PRISMATIC	STEEL		MOUNTED		COLUMBIA "LJT24" SERIES	
											DAY-BRITE "2TG" SERIES	
L4	SURFACE MOUNTED LED	4'	UNIV.	4146 LUMEN	38	DIFFUSE	FLUSH	WHITE	SURFACE CEILING	80 CRI	LITHONIA "CDS" SERIES	
				3500K LED		POLYCARBONATE	STEEL				COLUMBIA "CSL4" SERIES	
	WALL MOUNTED INDIRECT /										DAY-BRITE "SCD" SERIES	
L5		4	UNIV.	2600 LUMEN	23			WHITE	WALL AT EXISTING	WHITE REFLECTOR, OPD SHIELDING, SSB BAFFLE, SCT SWITCHING,	PEERLESS "BRW9L" SERIES	
	DIRECT LED			3500K LED					FIXTURE LOCATION	70% UP / 30% DOWN DISTRIBUTION, 80 CRI	FINELITE "S16LED" SERIES	
1.6	DEMANT MOUNTED LINEAR LED	07 154051 40	1 1h 11h ?			00071 500 1 5110	EVERLINED ALLIMANIA	148 11 70	 	20 001 0 404 00400	LEDALITE "7408" SERIES	
L6	PENANT MOUNTED LINEAR LED LINEAR LED	2" x LENGTH AS INDICATED	UNIV.	900 LUMENS/LF	13.6 W/LF	SPOTLESS LENS	EXTRUDED ALUMINUM	WHITE	PENDANT AT 8'-0"	80 CRI, 0-10V DIMMING,	AXIS "BRLED" SERIES	
· 5.	LINEAR LED	INDICATED		3500K LED	42W				BOTTOM OF FIXTURE		FINELITE" HP2" SERIESS	YES
17	RECESSED FLANGELESS MOUNTED	2" x LENGTH AS	I INIIV/	000 11111510 (15	47.0 49/15	CDOTLECC LENC	EXTRUDED ALUMINUM	WHITE	"D" DDWHALL ELANOLESS	80 CRI, 0-10V DIMMING	LEDALITE " 2203" SERIES	
L/	LINEAR LED	INDICATED	UNIV.	900 LUMENS/LF 3500K LED	13.6 4W/LF 42W	SPOTLESS LENS	EXTRUDED ALUMINUM	WHILE	"D" DRYWALL FLANGLESS	OU CRI, U-IUV DIMMING	AXIS "BRLED" SERIES	\/FC
	LINEAR LED	INDICATED		3300K LED	42W						FINELITE "HP2" SERIES	YES
19	RECESSED LED DOWNLIGHT	A"	UNIV.	2500 LUMEN	30		ALUMINUM	WHITE	RECESSED	MEDIUM WIDE DISTRIBUTION, SEMI-SPECULAR DIFFUSE	LEDALITE " 2301" SERIES LITHONIA "LDN4" SERIES	
LJ	RECESSED LED DOWNLIGHT	4	ONIV.	3500K LED	30		ALOMINOM	WHILE	CEILING	MEDIUM WIDE DISTRIBUTION, SEMI-SPECULAR DIFFUSE	INTL "SS4" SERIES	
				3300K LLD					CLILING		HALO "PD4" SERIES	
10	RECESSED LED DOWNLIGHT		UNIV.	3000 LUMEN	35		ALUMINUM	WHITE	RECESSED	MEDIUM WIDE DISTRIBUTION, SEMI-SPECULAR DIFFUSE	LITHONIA "LDN4" SERIES	
	THEOLOGIC LED DOWNLOW!	T	OINIV.	3500K LED	55		ALOMINAOM	WIIIL	CEILING	MEDIUM WIDE DISTRIBUTION, SEMI-SPECULAR DILLOSE	INTL "SS4" SERIES	
				OCCOUNT LED					GEIERIO		HALO "PD4" SERIES	
L11	SURFACE MOUNTED LED	4'	UNIV.	4800 LUMEN	41	ACRYLIC	STEEL	WHITE	SURFACE CEILING	GTZ 0-10V DIMMING, 80 CRI	LITHONIA "LBL4" SERIES	
	WRAPAROUND		0.1	3500K LED		NONTEG	0,222		Solit Field Selection	The state of the s	INTL "SS4" SERIES	
				3330							HALO "PD4" SERIES	
_11E	SURFACE MOUNTED LED	4'	UNIV.	4800 LUMEN	41	ACRYLIC	STEEL	WHITE	SURFACE CEILING	GTZ 0-10V DIMMING, 80 CRI, E10WLCP	LITHONIA "LBL4" SERIES	
	WRAPAROUND			3500K LED					·	90 MINUTE BATTERY BACKUP WITH SELF DIAGNOSTICS	INTL "SS4" SERIES	
									·	AND TEST/STATUS LIGHT	HALO "PD4" SERIES	·
L12	SURFACE MOUNTED LED	4'	UNIV.	4000 LUMEN	40	ACL ACRYLIC	FIBERGLASS		WALL AT EXISTING	MEDIUM DISTRIBUTION, 80 CRI, WET LOCATION LABEL	LITHONIA "FEM LED" SERIES	
				3500K LED							COLUMBIA "LXEM4" SERIES	
									FIXTURE ELEVATION		LUMEX "VNBTLED" SERIES	
12A	SURFACE MOUNTED LED	4'	UNIV.	4000 LUMEN	40	ACL ACRYLIC	FIBERGLASS		SURFACE CEILING	MEDIUM DISTRIBUTION, 80 CRI, WET LOCATION LABEL	LITHONIA "FEM LED" SERIES	
				3500K LED							COLUMBIA "LXEM4" SERIES	
											LUMEX "VNBTLED" SERIES	
L13	WALL MOUNTED LED AREA LIGHT	16" x 15"	UNIV.	20C, 8427 LUMEN	72	GLASS		DARK BRONZE	WALL, AT EXISTING	1000 mA DRIVER, TYPE III MEDIUM DISTRIBUTION, WET LOCATION LABEL	LITHONIA "TWH LED" SERIES	
	The second secon			4000K LED					FIXTURE LOCATON		ILP "WPLO" SEREIS	
144	WALL MOUNTED LES ASSESSMENT				· · · · · · · · · · · · · · · · · · ·						STONCO "WP75" SERIES	and the same of th
L14	WALL MOUNTED LED AREA LIGHT	16" x 15"	UNIV.	10C, 6983 LUMEN	39	GLASS		DARL BRONZE	WALL AT 7'-6"	WET LOCATION LABEL	LITHONIA "TWH LED" SERIES	
				4000K LED							ILP "WPLO" SEREIS	
16	POLE STREETLIGHTING FIXTURE	108 ==0	077	0045 11114511		OLEAN LEVILLE		DI AOI			STONCO "WP50" SERIES	
L15	POLE STREETLIGHTING FIXTURE	16" x 32"	277	6245 LUMEN	56	CLEAR LEXAN		BLACK	POLE	12' TALL, 4" DIAMETER FLUTED ALUMINUM POLE,	STERBERG LANTERNS "VLED-A-850"	
				4000K LED	-	WITH HSS				120V, 20A, WEATHERPROOF DUPLEX RECEPTACLE,	CITY OF WILMNGTON STANDARD	
L16	LED HIGHBAY		277	24000 LUMEN	192	HOUSESIDE SHIELD	ALUMINUM	WHITE	SURFACE ON	FINIAL WD DISTRIBUTION SD125 LENS	NO SUBSTITUTIONS	
LIU	LLV HIGHDA I	4	211	3500K LED	192	SEMI-DIFFUSE ACRYLIC	ALUMINUM	WHILE	SURFACE ON STRUCTURE	WD DISTRIBUTION, SD125 LENS, SURFACE MOUNTING BRACKET	LITHONIA "IBL" SEREIS	
			•	JOUR LED	-	AURTLIU			SINUCIURE	SURFACE MOUNTING BRACKET	ILP "EDV" SERIES	
_17	WAL MOUNTED DIRECT/INDIRECT LED	A'	UNIV.	1000 LUMEN / FOOT	30		ALUMINUM	WHITE	WALL MOUNTED AT 9'-0"	WD DISTRIBUTION, AWM WALL MOUNT,	DAY-BRITE "FBY" SERIES STARTEK "BEAMD" SERIES	
•	WAL MOORTED DIRECT/HADIRECT LED	*	OHIV.	3500K LED	30		VFOMILIADIA	WIII L	WALL MOUNTED AT 9-0	80% DOWN / 20% UP DISTRIBUTION	FINELITE "EX3DI" SERIES	YES
				JOOK LLD	,					OUN DOWN / ZUN OF DISTRIBUTION	PAL "MLP3" SERIES	IES
18	SURFACE MOUNTED LED AREA LIGHT	16" x 15"	UNIV.	30C, 8375 LUMEN	104	GLASS		DARK BRONZE	SURFACE CEILING	1000 mA DRIVER, TYPE III MEDIUM DISTRIBUTION, WET LOCATION LABEL	LITHONIA "TWH LED" SERIES	
		10 10		4000K LED		J. 100		witelfale	Silving Gallering	ASSESSMENT OF THE MEDICAL PROPERTY OF THE PROP	ILP "WPLO" SERIES	
											STONCO "WP75" SERIES	·
X1	EXIT LIGHT		UNIV	RED LED	5		POLYCARBONATE	WHITE	FLUSH CEILING	RED LED, 6" LETTERS, SINGLE OR DOUBLE FACE UNITS AND CHEVRONS	LITHONIA "LQM" SERIES	
					<u>-</u>			***************************************		AS INDICATED, INTERNAL 90 MINUTE BATTERY BACKUP, SELF DIAGNOSTICS	EMERGILITE "ELX" SERIES	
										Division of Divisi	CHLORIDE "CLX" SEREIS	
X2	EXIT LIGHT		UNIV	RED LED	5		POLYCARBONATE	WHITE	WALL OVER DOOR	RED LED, 6" LETTERS, SINGLE OR DOUBLE FACE UNITS AND CHEVRONS	LITHONIA "LQM" SERIES	
					-			; 		AS INDICATED, INTERNAL 90 MINUTE BATTERY BACKUP, SELF DIAGNOSTICS	EMERGILITE "ELX" SERIES	
	Most the country with				-					The state of the s	CHLORIDE "CLX" SEREIS	
E	EMERGENCY LIGHT		UNIV	2 - 1.5W LED	3		POLYCARBONATE	WHITE	WALL / 7'-6"	INTERNAL 90 MINUTE BATTERY BACKUP, SELF DIAGNOSTICS	LITHONIA "ELM2 LED" SERIES	
			-							200 200000 0000000000000000000000000000		1
				į. I	1	I			1	I	EMERGILITE "EL" SERIES	ı

ACRYLIC PRISMATIC LENSES SHALL BE 0.125" NOMINAL MINIMUM THICKNESS.

. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSBC STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.

3. LED EMERGENCY BATTERY SHALL PROVIDE 1400 MINIMUM LUMENS OUTPUT FOR 90 MINUTES MINIMUM.

. SEE SPECIFICATIONS SECTIONS 265100 AND 265200 FOR ADDITIONAL REQUIREMENTS. . THE FIRST FIXTURE NAMED IN THE MANUFACTURER COLUMN IS THE BASIS OF DESIGN. OTHER FIXTURES ARE SIMILAR IN THE OPINION OF THE ARCHITECT AND ENGINEER. IF THE CONTRACTOR ELECTS TO SUBMIT A FIXTURE OTHER THAN THE BASIS OF DESIGN FIXTURE, INCLUDING ONE OF THE TWO SIMILAR FIXTURES, REQUIREMENTS OF NOTES 6 AND 7 APPLY.

6. LIGHTING FIXTURES HAVE BEEN SELECTED AND SPECIFIED TO ACHIEVE REQUIRED/DESIRED ILLUMINATION LEVELS AND OTHER CHARACTERISTICS IN THEIR RESPECTIVE AREAS. SPECIFIC CHARACTERISTICS WHICH MAY CREATE UNIQUE ILLUMINATION RESULTS ESSENTIAL TO THE PROJECT. LIGHTING FIXTURES PROVIDED SHALL MEET THE ASTHETICS, DETAILS, AND SPECIFICATIONS STATED ABOVE AND IN THE DIVISION 26 SPECIFICATIONS, AND MOUNTING HEIGHTS AND SPACINGS SHOWN ON THE DRAWINGS. ANY DEVIATIONS FROM THE SPECIFIED FIXTURES SHALL DEEM ALL PARTIES IN THE SUPPLY CHAIN AND CONTRACTOR RESPONSIBLE FOR PROVIDING DETAILED COMPARISONS OF THE SPECIFIED FIXTURE AND THE PROPOSED FIXTURE FOR ARCHITECT AND ENGINEER REVIEW IN DETERMINING EQUALITY. PROVIDE COMPARISONS OF THE SPECIFIED FIXTURE AND THE PROPOSED FIXTURE FOR ARCHITECT AND ENGINEER REVIEW IN DETERMINING EQUALITY.

7. SUBSTITUTIONS MAY BE APPROVED BY THE ARCHITECT AND ENGINEER IF THEY ARE JUDGED TO BE EQUAL TO THE SPECIFIED FIXTURES. "EQUAL" MAY INCLUDE, AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER, LENS MATERIAL AND CHARACTERISTICS, COLORS, REFLECTORS, HOUSING MATERIAL AND CONFIGURATION, FINISHES, PHOTOMETRICS, EFFICIENCY,

OPTIONS, FUNCTIONALITY, ETC..



ARCHITECTURE P L A N N I N G

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave

Dover, DE 19904 302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711

302.369.3700 www.beckermorgan.com





RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street
Wilmington, NC 28401
SCO#17-18154-01A;NCCCS# 2352

LIGHTING FIXTURE SCHEDULE

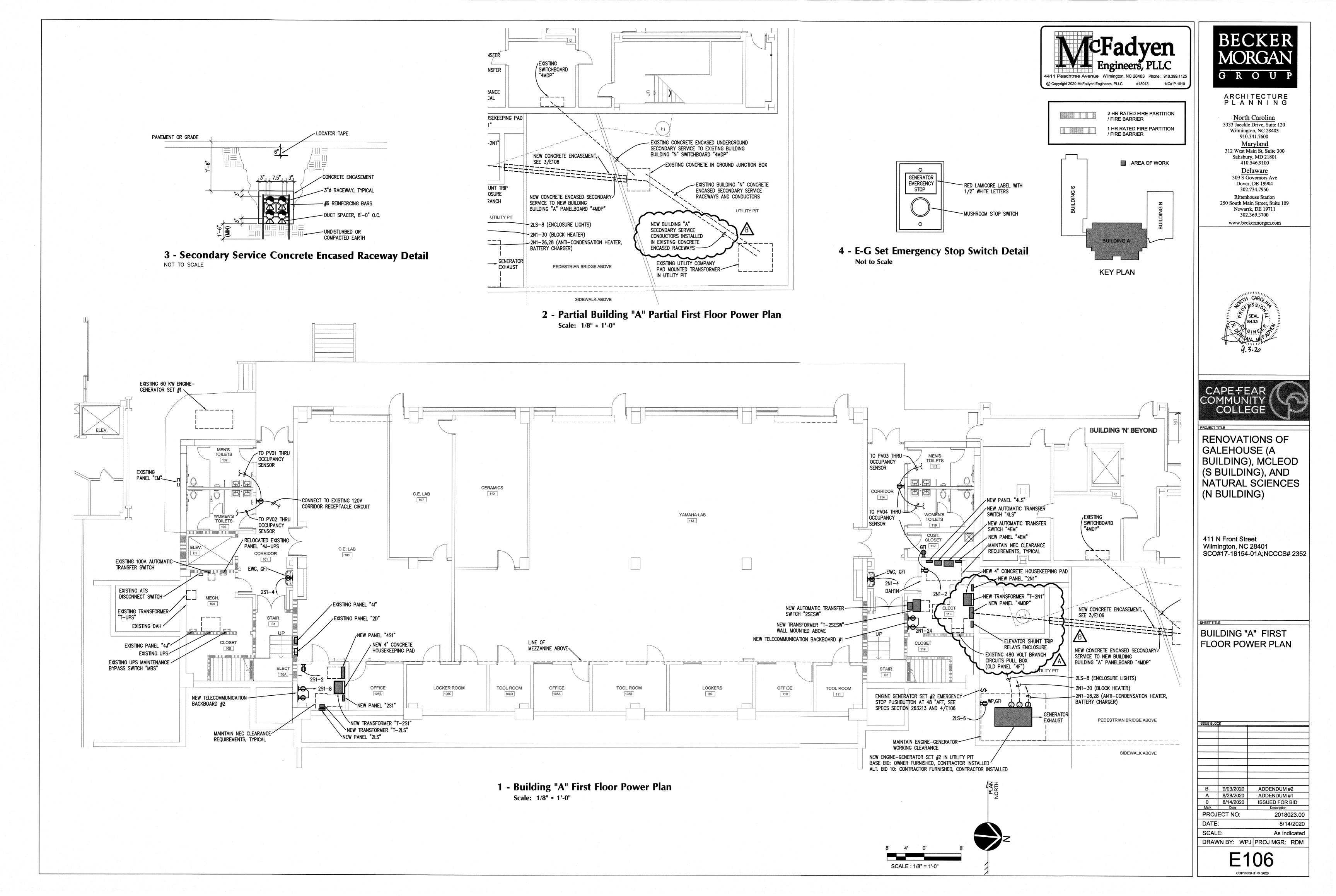
		and the state of
ISSUE BLOC	K .	
	- 1	
В	9/03/2020	ADDENDUM #2
_	0/4//0000	JOOLIED FOR DID

 0
 8/14/2020
 ISSUED FOR BID

 Mark
 Date
 Description
 PROJECT NO: 2018023.00

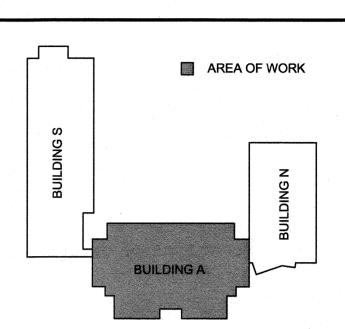
As indicated DRAWN BY: WPJ PROJ MGR: RDM

8/14/2020









KEY PLAN

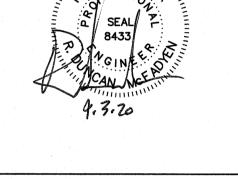


North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801 410.546.9100 Delaware 309 S Governors Ave

Dover, DE 19904 302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109

Newarrk, DE 19711 302.369.3700

www.beckermorgan.com





RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

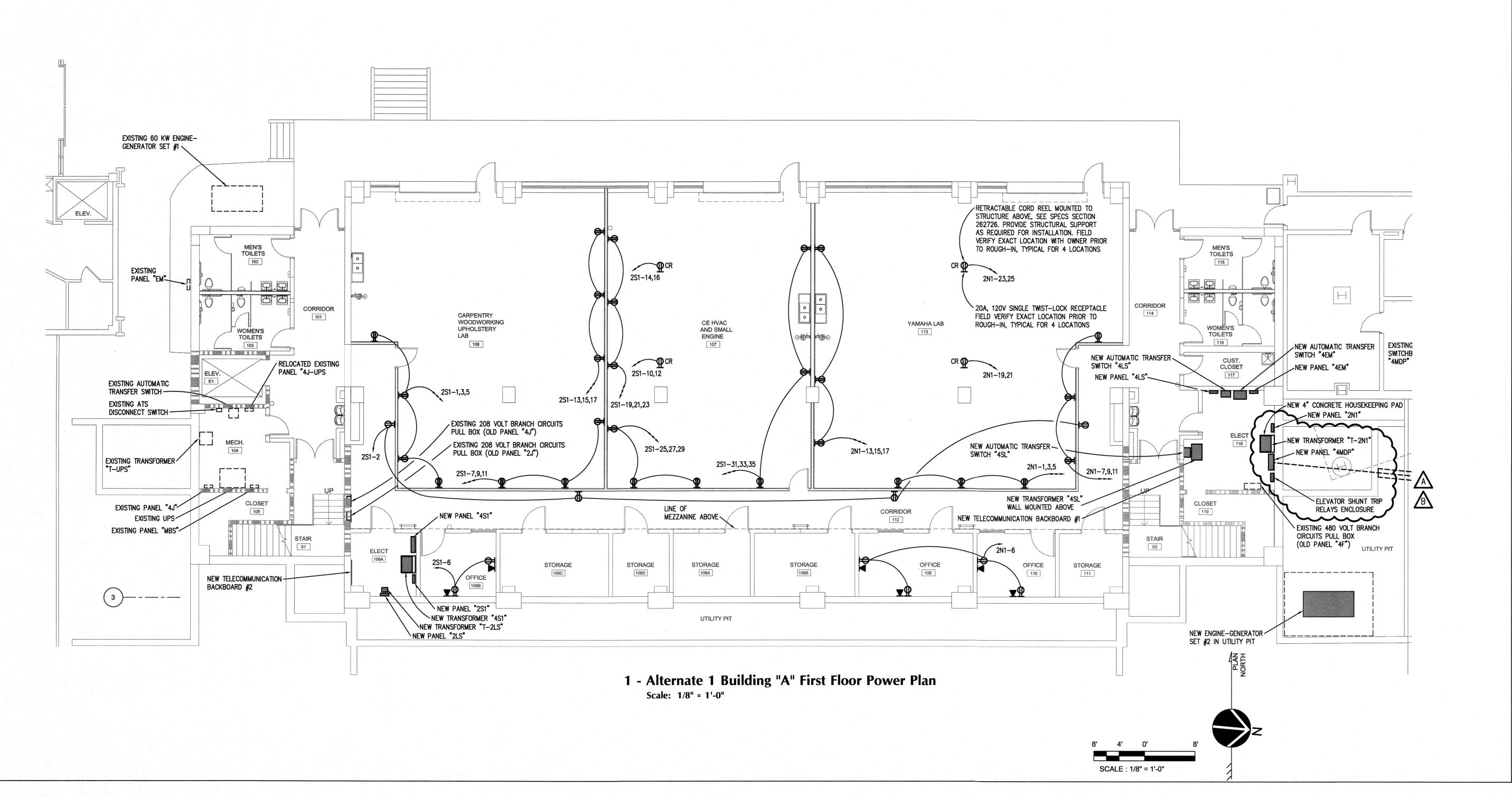
SHEET TITLE ALTERNATE 1 BUILDING "A" FIRST FLOOR POWER PLAN

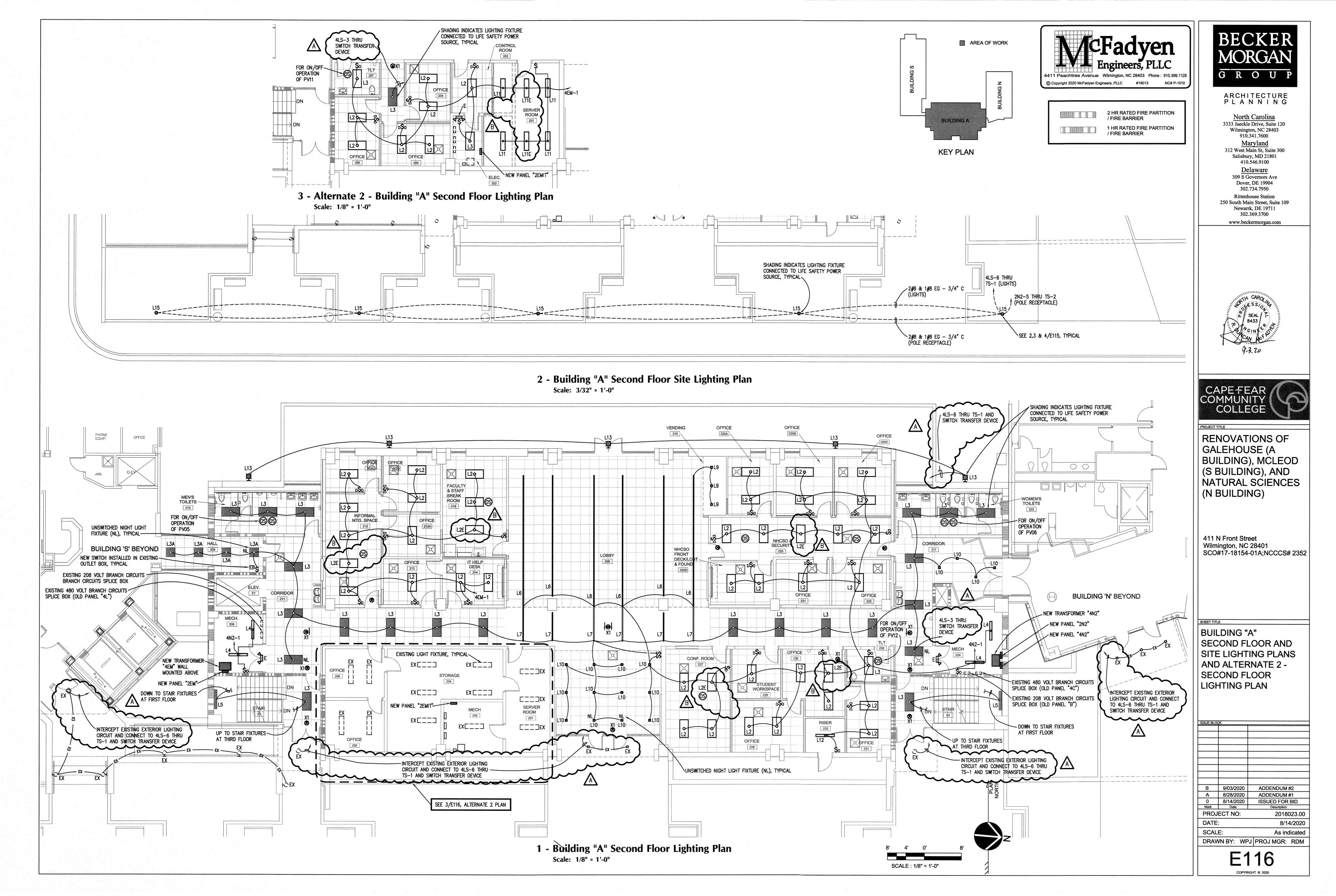
B 9/03/2020 A 8/28/2020 0 8/14/2020 Mark Date ADDENDUM #2 ADDENDUM #1 ISSUED FOR BID

PROJECT NO: 2018023.00

8/14/2020 As indicated DRAWN BY: WPJ PROJ MGR: RDM

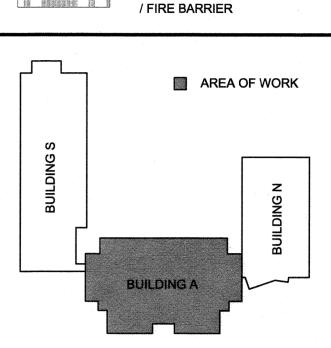
E106A







2 HR RATED FIRE PARTITION / FIRE BARRIER 1 HR RATED FIRE PARTITION



KEY PLAN

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



North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 312 West Main St, Suite 300

Salisbury, MD 21801 410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com





RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

SHEET TITLE

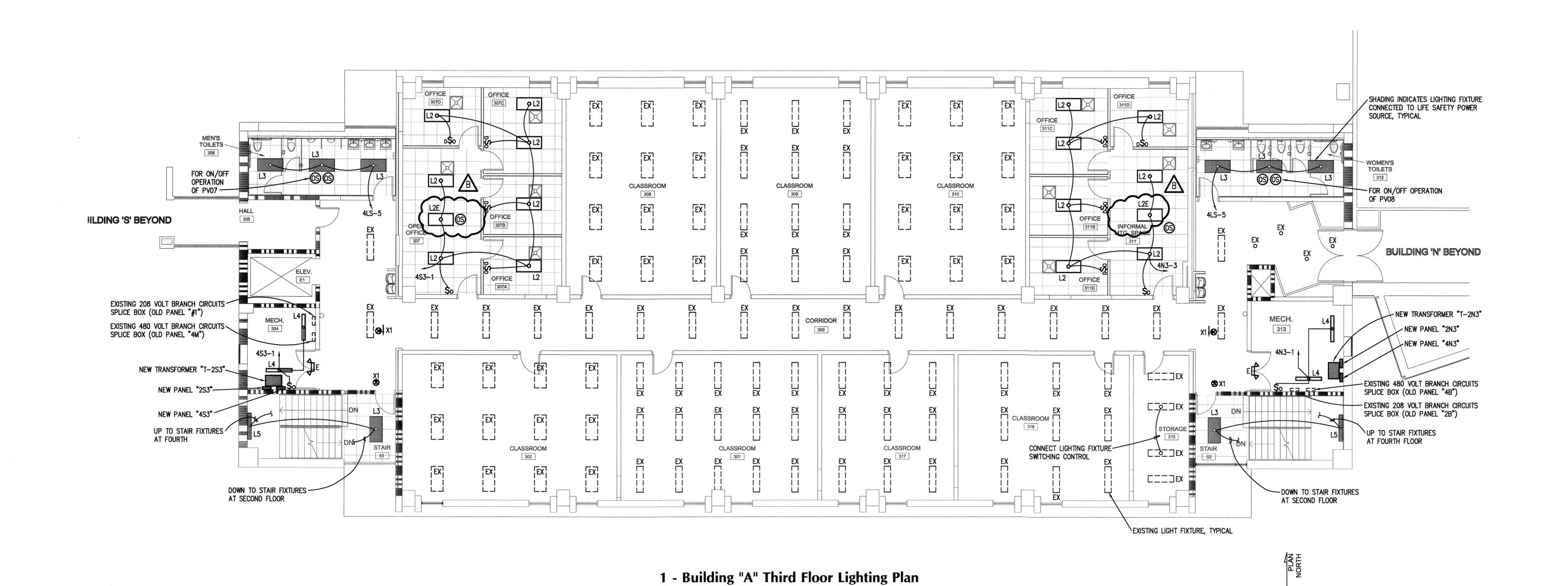
BUILDING "A" THIRD FLOOR LIGHTING PLAN

	,		
	ISSUE BLOC	CK	
1			
1			
		÷	
1			
			The state of the s
	В	9/03/2020	ADDENDUM #2
	0	8/14/2020	ISSUED FOR BID
l	Mark	Date	Description
1	PROJ	FCT NO:	2018023.00

DATE: 8/14/2020

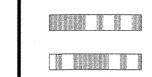
As indicated DRAWN BY: WPJ PROJ MGR: RDM

E117



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

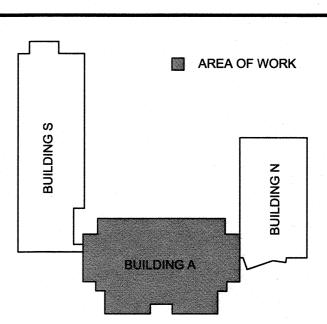




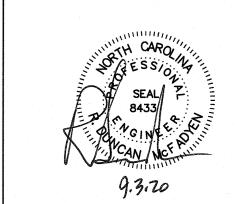
2 HR RATED FIRE PARTITION / FIRE BARRIER

/ FIRE BARRIER

1 HR RATED FIRE PARTITION
/ FIRE BARRIER



KEY PLAN



G R O U P

ARCHITECTURE P L A N N I N G

North Carolina
3333 Jaeckle Drive, Suite 120

Wilmington, NC 28403 910.341.7600 <u>Maryland</u> 312 West Main St, Suite 300 Salisbury, MD 21801

Delaware
309 S Governors Ave
Dover, DE 19904
302.734.7950
Rittenhouse Station
250 South Main Street, Suite 109
Newarrk, DE 19711
302.369.3700
www.beckermorgan.com



PROJECT TITLE

RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street
Wilmington, NC 28401
SCO#17-18154-01A;NCCCS# 2352

SHEET TITLE

ALTERNATE 3 -BUILDING "A" THIRD FLOOR LIGHTING PLAN

ISSUE BLO	CK	
· · · · · · · · · · · · · · · · · · ·		
		MANAGEMENT OF THE STATE OF THE
В	9/03/2020	ADDENDUM #2
Α	8/28/2020	ADDENDUM #1
0	8/14/2020	ISSUED FOR BID
Mark	Date	Description
PROJ	ECT NO:	2018023.00

 Mark
 Date
 Description

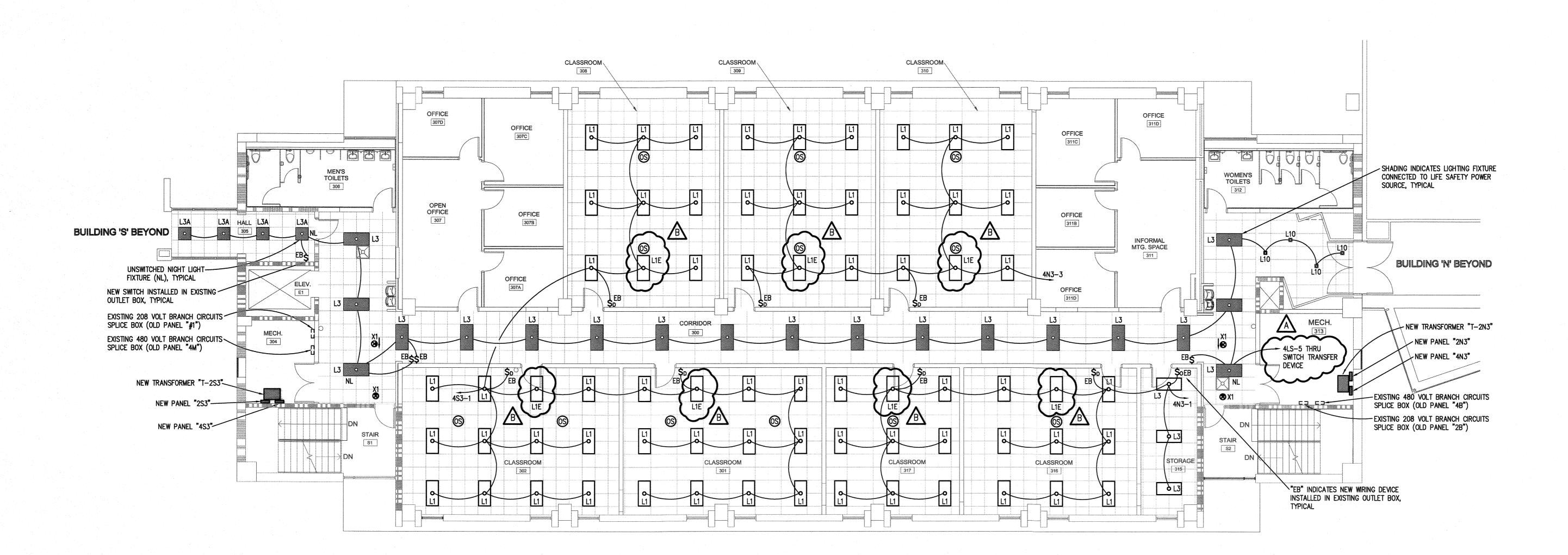
 PROJECT NO:
 2018023.00

 DATE:
 8/14/2020

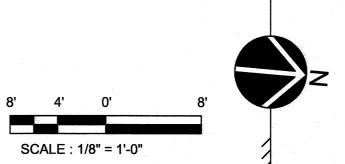
 SCALE:
 As indicated

 DRAWN BY:
 WPJ
 PROJ MGR:
 RDM

E117A

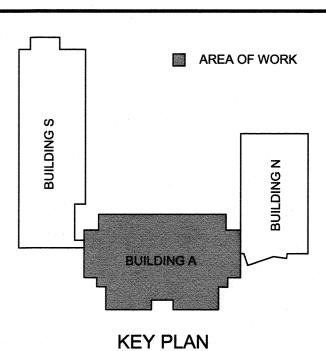


1 - Alternate 3 - Building "A" Third Floor Lighting Plan Scale: 1/8" = 1'-0"











ARCHITECTURE P L A N N I N G

North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 Maryland 312 West Main St, Suite 300 Salisbury, MD 21801

410.546.9100 <u>Delaware</u> 309 S Governors Ave Dover, DE 19904

302.734.7950 Rittenhouse Station 250 South Main Street, Suite 109 Newarrk, DE 19711 302.369.3700

www.beckermorgan.com





RENOVATIONS OF GALEHOUSE (A BUILDING), MCLEOD (S BUILDING), AND NATURAL SCIENCES (N BUILDING)

411 N Front Street Wilmington, NC 28401 SCO#17-18154-01A;NCCCS# 2352

SHEET TITLE

ALTERNATE 4 -BUILDING "A" FOURTH FLOOR LIGHTING

-							
	ISSUE BLO	CK					
1		·					
-							
ļ							
	AB	9/03/2020	ADDENDUM #2				
	Α	8/28/2020	ADDENDUM #1				
	0	8/14/2020	ISSUED FOR BID				
- 1	Mode	Doto	Description				

PROJECT NO: 2018023.00

8/14/2020 As indicated DRAWN BY: WPJ PROJ MGR: RDM

E118A

