**MULTIPLE RENOVATION PROJECTS**
**HALIFAX COUNTY SCHOOLS**
**HALIFAX COUNTY, NC**

## GENERAL:

Planholders are requested to insert this Addendum in the front of their Project Manual. Inform all concerned that the Bidding Documents are modified by this Addendum.

The following modifications and clarifications are hereby made a part of the Bidding Documents and supersede or otherwise modify the provisions of the published *Project Manual* and *Drawings*, dated January 17, 2024.

Refer to the Drawings, Specification Sections, or other Documents, if any, attached to this Addendum, which are hereby made a part of this Addendum.

## MODIFICATIONS TO THE PROJECT MANUAL AND DRAWINGS:

DELETE the previously issued Documents indicated below in their entirety and SUBSTITUTE the revised Documents in their entirety, noted as Addendum 01 (*AD-01), dated February 14, 2024.

SECTION 004100.1 – BID FORM

SECTION 011000 – SUMMARY

SECTION 012300 – ALTERNATES

SECTION 033543 – POLISHED CONCRETE FINISHING

SECTION 096519 – RESILIENT TILE FLOORING

SECTION 262726 – WIRING DEVICES

DRAWING G0.1

DRAWING A1.0

DRAWING A2.0

DRAWING S1.1

ADD the Documents indicated below, noted as Addendum 01 (*AD-01), dated February 14, 2024, to the previously issued Documents.

DRAWING P6.1

**REFER TO DRAWINGS ATTACHED TO THE END OF THIS ADDENDUM.**

**REFER TO SPECIFICATION SECTIONS ATTACHED TO THE END OF THIS ADDENDUM.**

**END OF ADDENDUM NO 01**

# BID FORM
# MULTIPLE RENOVATION PROJECTS

DATE: _____

TO: HALIFAX COUNTY SCHOOLS
9525 Highway 301 S, Halifax, NC 27839

FROM: _____
Bidder's Name

_____
Bidder's Address

_____
Bidder's Address

FOR: **MULTIPLE RENOVATION PROJECTS – HALIFAX COUNTY SCHOOLS**

Having carefully examined the site, and all of the Bidding and Contract Documents, and in compliance with the "Invitation to Bid" and "Instructions to Bidders", the undersigned proposes to provide all labor, materials, supplies, equipment, services, and perform all Work necessary for the construction of this Project in accordance with the Bid Documents, dated **January 17, 2024**, prepared by Moseley Architects.

Complete this Bid Form in blue or black ink or by typewriter. Discrepancies in the multiplications of units of work and the unit prices will be resolved in favor of the correct multiplication of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

BASE BID PRICE:

The Base Bid Price includes all Work required by and in strict accordance with the Bid Documents for this Project, for the Lump Sum of:

$_____(Figures only).

ALLOWANCE: (Reference Section 012100 – Allowances)

1. Allowance No. 1: Hazardous materials testing and abatement. $___10,000_____

**TOTAL BASE BID PRICE**:

The Total Base Bid Price includes the Base Bid Price + Allowance, for the Lump Sum of:

$_____(Figures only).

ALTERNATE PRICES: (Reference Section 012300 – Alternates)

1. Alternate #1 Bid Price: Electrical Power Infrastructure: Provide all work associated with additional power at the culinary lab, in strict accordance with the Bid Documents.

   $_____(Figures only).

2. Alternate #2 Bid Price: Owner-Preferred Alternate: Provide Building Automation System by Reliable Controls in lieu of any listed acceptable manufacturer.

   $_____(Figures only).

3. **Alternate #3 Bid Price: Terrazzo Flooring: Provide terrazzo in lieu of polished concrete at Rooms 242 and 244.**

   **$_____(Figures only). (*AD-01)**

UNIT PRICE: (Reference Section 012200 – Unit Prices)

2. Unit Price No. 1: Slab-on-grade removal and replacement: Removal and replacement of concrete slab-on-grade over and beyond that shown on the Drawings.

   $_____ / SF

RECEIPT OF ADDENDA

We acknowledge the receipt of the following Addenda:

Addendum No. _____, dated _____
Addendum No. _____, dated _____
Addendum No. _____, dated _____
Addendum No. _____, dated _____

SUB-CONTRACTORS LIST

Bidders Submitting a Single prime Contract are required to list the names of sub-contractors used in determining their bid. List the names of sub-contractors below.

- Plumbing: _____
- Mechanical: _____
- Electrical: _____

TIME OF COMPLETION

**Based upon a Notice to Proceed within forty-five (45) calendar days from the opening of the bid, Work included in this Contract shall be Substantially Complete no later than ~~December 1, 2024~~ November 16, 2024 (*AD-01), and finally complete no later than thirty (30) calendar days thereafter.**

LIQUIDATED DAMAGES

Liquidated Damages (refer to General Conditions for additional information): $1,000.00 per calendar day.

ACKNOWLEDGMENT AND REPRESENTATIONS

- If notice of acceptance of this bid is given to the undersigned within **ninety (90)** days after the date of opening of bids, or any time thereafter before this bid is withdrawn, the undersigned will execute and deliver the Owner's prescribed modified AIA A101 Architect Agreement promptly after it has been presented to him for signature. Evidence of Insurance pursuant to A201 General Conditions Article 11 and Performance and Payment Bonds shall be furnished to the Owner at the execution of this Agreement.

- The undersigned Bidder certifies that neither he/she, nor any official, agent or employee has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with this bid. The person signing this Bid Form represents that he/she has full authority and representative capacity to execute this Bid Form in the capacity indicated below.

- The undersigned Bidder is a licensed General Contractor in accordance with applicable North Carolina state statutes and regulations, as amended.

- By submitting this bid, Bidder warrants and represents that Contractor and its Subcontractors comply with the E-Verify System requirements for confirmation of employment status of employees per Article 2 of Chapter 64 of North Carolina General Statutes.

CERTIFICATION

I certify that the firm name given below is the true and complete name of the Bidder and that the Bidder is legally qualified and licensed, to perform all Work included in the scope of the Contract.

Legal Name of Bidder (Company) _____

Bidder's (Company) Address _____

Affix Corporate Seal (if applicable): Corporate Seal

Signature _____
(Signature of person(s) legally authorized to bind Bidder (Company) to this Contract)

By: _____
(Typed or printed Name(s) of Person(s) Signing)

Title: _____
(Typed or printed Title(s) of Person(s) Signing)

Telephone Number: _____ E-mail: _____
(include Area Code) (of person indicated above)

North Carolina General Contractor License No.: _____

*(This form may be reproduced in exact detail)*

END OF BID FORM

# SECTION 011000
# SUMMARY

## PART 1 GENERAL

### 1.01 PROJECT

A. Project Name: Halifax County Multiple Renovations.

B. Owner's Name: Halifax County Schools Board of Education.

C. Architect's Name: Moseley Architects of Raleigh, NC.

### 1.02 CONTRACT DESCRIPTION

A. Contract Type: A single-prime contract based on a competitively bid Stipulated Price (Fixed Sum) as described in the Bidding and Contractual Requirements (Division 00) included in this Project Manual.

### 1.03 PROFESSIONAL SEALS

A. Use of Professional Seals on Bidding, Procurement, and Contract Documents: For the purposes of this paragraph, the term “Regulant” refers to the individual who signs and seals parts of the Contract Documents (e.g. the Drawings and Specifications). Certain information has been excerpted verbatim from a source or sources (e.g., UL assemblies, SMACNA details, applicable state/jurisdiction building code) which was considered or used by Regulant in preparing parts of the Contract Documents, as follows:

1. The excerpted information was neither prepared under the direct control nor personal supervision nor created by the Regulant, as it was prepared by the source and owner of the excerpted information.
2. For purposes of bidding, procuring, and performance of the Work, and in any event of conflicts or ambiguities between the excerpted information in the Contract Documents and the requirements of applicable codes and standards, provide the better quality or greater quantity of Work which, at a minimum, complies with the requirements of the applicable codes and standards.
3. Advise Architect immediately upon becoming aware of requirements of the Work which are not consistent with the requirements of the excerpted information.
4. Attribution is acknowledged for information obtained and included herein verbatim from other source or sources.
5. Regulant has taken into consideration and used certain excerpted information from other sources which are applicable to the Contract Documents, and the Regulant indicates by its seal that it is assuming responsibility for its services in use and application of the excerpted information to the requirements of Work, but not for the excerpted information itself which was prepared by others. Regulant does not indicate by its seal that it is responsible for use or application of other information in such source or sources which was not included herein.

### 1.04 OWNER OCCUPANCY

A. Owner intends to occupy the Project upon Substantial Completion.

B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

C. Schedule the Work to accommodate Owner occupancy.

1. Maintain routes of egress and life safety systems for Owner and occupants at all times.

## 1.05 CONTRACTOR USE OF SITE AND PREMISES

A. Construction Operations: Limited to areas noted on Drawings.
   1. Locate and conduct construction activities in ways that will limit disturbance to site.
   2. **An assigned laydown area for each school will be coordinated with and identified by the Owner upon the start of Construction (*AD-01).**
   3. **An existing room may be available for use as an office throughout the duration of Construction and shall be coordinated with the Owner. (*AD-01).**

B. Provide access to and from site as required by law and by Owner:
   1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
   2. Do not obstruct roadways, sidewalks, or other public ways without permit.

C. Existing building spaces may not be used for storage **without prior approval from the Owner (*AD-01).**

D. Existing building shall be maintained weathertight. Do not modify elements of the existing building except as indicated on the Construction Documents. Repair damage to the existing building due to construction activity.

E. **Contractor may use existing water and power utilities at Owner expense. (*AD-01).**

F. Time Restrictions:
   1. Comply with local regulations for hours of work, noise ordinances, and similar requirements.
   2. **Limit conduct of especially noisy, malodorous, and dusty work to times outside of normal school hours (normal school hours defined as 8 AM to ~~3 PM~~ 3:15 PM) or when school is out of session during the summer months (summer months typically occur from mid-June through mid-August; exact dates are to be confirmed with Owner). (*AD-01).**

G. Utility Outages and Shutdown:
   1. Limit disruption of utility services to hours the building is unoccupied.
   2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
   3. Prevent accidental disruption of utility services to other facilities.

H. Controlled Substances: The use of alcohol and drugs is not permitted on the Project site. Provide a designated outdoor smoking area for construction personnel that is at least 30 feet away from the building.

## 1.06 SPECIFICATION SECTIONS APPLICABLE TO ALL WORK

A. The provisions of the Owner/Contractor agreement, General Conditions of the Contract, Supplementary Conditions (if any), and all Division 01 sections shall apply to all sections of the Project Manual.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION - NOT USED

## END OF SECTION 011000

# SECTION 012300
# ALTERNATES

## PART 1 GENERAL

### 1.01 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

### 1.02 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Electrical Power Infrastructure.
   1. Base Bid Item: Do not provide any additional power at culinary lab.
   2. Alternate Item: Provide all work associated with additional power at the culinary lab, as indicated on Bid Documents.

B. Alternate No. 2: Owner Preferred Alternate - Building Automation System.
   1. Base Bid Item: Provide Building Automation System by any of the acceptable manufacturers listed in Division 23 section "Building Automation System."
   2. Alternate Item: Provide Building Automation System by Reliable Controls.

C. **Alternate No. 3: Terrazzo Flooring (*AD-01)**
   1. **Base Bid Item: Infill saw cut areas at Rooms 242 and 244 with polished concrete.**
   2. **Alternate Item: Infill saw cut areas at Rooms 242 and 244 and finish with terrazzo to match existing.**

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION - NOT USED

## END OF SECTION 012300

# SECTION 033543
# POLISHED CONCRETE FINISHING

## PART 1 GENERAL

### 1.01 REFERENCE STANDARDS

A. ANSI/NFSI B101.1 - Test Method for Measuring the Wet SCOF of Hard-Surface Walkways.

B. ANSI/NFSI B101.3 - Test Method for Measuring the Wet DCOF of Hard Surface Walkways.

C. ASTM C1353/C1353M - Standard Test Method for Abrasion Resistance of Dimension Stone Subjected to Foot Traffic Using a Rotary Platform Abraser.

D. ASTM D4039 - Standard Test Method for Reflection Haze of High-Gloss Surfaces.

E. ASTM D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.

F. ASTM D5767 - Standard Test Method for Instrumental Measurement of Distinctness-of-Image (DOI) Gloss of Coated Surfaces.

G. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials.

H. ASTM G154 - Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials.

### 1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordinate work of this section with concrete floor placement and concrete floor curing.

B. Preinstallation Meeting: Conduct a preinstallation meeting 10 days prior to start of work of this section. Conduct meeting at the Project site.

1. Items for Review:
    a. Contract document requirements.
    b. Approved submittals and mock-up requirements, including location and timing of test areas/mock-ups.
    c. Physical requirements of concrete slab and slab finish, including specific mix design(s), specified compressive strengths, and floor flatness requirements.
    d. Curing methods.
    e. Polished concrete finish requirements.
    f. Protection of surfaces not scheduled for finish application.
    g. Surface preparation.
    h. Application procedure, including details of each step of grinding, honing, and polishing operations, application of liquid applied products, and quality control.
    i. Procedures for edges and penetrations.
    j. Cleaning, including proper disposal of concrete slurry and concrete dust.
    k. Methods of protection of polished concrete floors during construction and after completion of polishing work, including coordination with all trades to clarify requirements and responsibilities.
    l. Coordination with other work.
2. Require attendance of parties directly affecting work of this section, including:
    a. Concrete producer's technical representative.

b. Concrete installer.
c. Concrete polishing contractor.
d. General Contractor's representative.
e. Contractor's representative.
f. Architect.
g. Structural engineer.
h. Owner's representative.

3. Notify parties one week in advance of date and time of meeting.

## 1.03 SUBMITTALS

A. Product Data:
1. Submit manufacturers specifications, technical data, test data, and written recommendations for storage, preparation, application and curing for each type of product indicated.
2. Submit manufacturer's Material Safety Data Sheet (MSDS) and other safety requirement for each type of manufactured material and product indicated.

B. Submit Polishing Contractor’s recommended installation procedures which, when reviewed by the Architect, may become the basis for accepting or rejecting actual installation procedures used on the work.

C. Samples for initial selection, approximately 12-inches x 12-inches x 2-inches, to illustrate finished surfaces of polished concrete.

D. Manufacturer's Certification: Letter of certification from product manufacturer stating that installer is a certified applicator and is familiar with proper procedures and installation requirements required by the manufacturer.

E. Concrete Polishing Contractor Qualifications:
1. Provide letter of certification from the Concrete Polishing Council (CPC) stating that installer is a certified applicator of special concrete finishes.
2. Submit a list of previous projects similar to this project in design, extent, and scope.

## 1.04 QUALITY ASSURANCE

A. Concrete Polishing Contractor Qualifications:
1. Shall be a company that has expertise in this type of work, sufficient production capability, successful completion of at least five projects similar to this project in size, and scope.
2. Shall have an adequate number of personnel trained and experienced in this type of work, and shall have an on-site supervisor who is currently certified as Concrete Polishing Craftsman by the Concrete Polishing Council (CPC).
3. Shall be approved/certified by the manufacturer for application of the liquid applied products.
4. Shall be familiar with the specified requirements and the methods needed for proper performance of work of this Section.

## 1.05 MOCK-UP

A. Construct mock-ups approximately 4 ft by 4 ft of each type finish, to demonstrate match to existing surface finish, color variation, typical joints, and standard of workmanship.

B. Placement, grinding, and polishing work shall be performed by the same personnel who will be doing this work on the Project.

C. Notify Architect seven days in advance of dates and times when mock-ups will be constructed, when practical.

D. Obtain approval of mock-ups from the Architect before starting actual work. If the Architect determines the mock-ups do not meet requirements, demolish and remove them from the site and cast others until mock-ups are approved.

E. Maintain approved mock-ups during construction in an undisturbed condition as a standard for judging the completed work.

F. When approved by Architect, approved mock-ups may remain as part of the finished work if undamaged and clean at time of Substantial Completion.

## 1.06 PROTECTION

A. Prevent petroleum or rust stains on concrete slab. No satisfactory chemical or cleaning procedure is available to remove petroleum and rust stains from the concrete surface. Prevention is therefore essential.

B. All equipment shall be diapered to avoid staining of the concrete from petroleum, oil, hydraulic fluid, or other liquid dripping from equipment over concrete surfaces.

C. Do not allow trades to park vehicles on the interior floor slab. If vehicles must be driven on interior slabs, drop cloths shall be placed under vehicles at all times.

D. Do not allow pipe cutting machine to be used or set up on the interior floor slab.

E. Steel, cans, and steel containers shall not be placed on interior slab, to avoid rust staining.

F. All equipment must be equipped with non-marking tires.

G. Equipment with soft rubber tires prone to picking up screws and nails shall be equipped with canvas tire bags.

H. Slabs subject to masonry construction, mortar spoils, pallet movers, forklifts, and scaffolding shall be protected with a breathable product and plywood or OSB until all masonry operations are complete

I. Do not tape protective coverings to concrete.

J. Prohibit use of markers, spray paint and soap stone.

K. Protect from painting activities over interior floor slab.

## 1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's sealed packaging, including application instructions.

B. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects.

C. Dispense special concrete finish material from factory numbered and sealed containers. Maintain record of container numbers.

## 1.08 FIELD CONDITIONS

A. Ambient Conditions: Verify that field conditions are within manufacturer's allowable range prior to application.

## PART 2 PRODUCTS

### 2.01 MATERIALS AND MANUFACTURERS

A. Penetrating Liquid Floor Treatment (Densifier and Stain Resistance): Penetrating chemical compound that reacts with concrete, filling the pores and hardening, and dustproofing. Colorless, odorless, and zero VOC. Breathable treatment which permits moisture transmission through concrete.
   1. Composition: Lithium silicate.
   2. Abrasion Resistance: Greater than 50 percent improvement compared to untreated sample in accordance with ASTM C1353/C1353M.
   3. Treated Material Slip Resistance: High traction range when tested according to ANSI/NFSI B101.1 and ANSI/NFSI B101.3.
   4. Adhesion: Greater than 10 percent increase in pull-off strength compared to untreated sample when tested according to ASTM D4541.
   5. Water Vapor Transmission: Zero perms compared to untreated sample when tested according to ASTM E96/E96M Method B.
   6. UV Stability: No degradation or yellowing when tested in accordance with ASTM G154.
   7. Products:
      a. Bomanite Corporation; Stabilizer Pro.
      b. Laticrete International; L&M FGS Hardener Plus.
      c. Sika; Scofield Formula One Lithium Densifier.
      d. Substitutions: See Section 016000 - Product Requirements.

### 2.02 RELATED MATERIALS

A. Water: Clean and potable.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Examine substrate, with concrete base slab installer and Concrete Polishing Contractor present, for conditions affecting performance of finish. Correct conditions detrimental to timely and proper work. Do not proceed until unsatisfactory conditions are corrected.

B. Verify existing concrete floor finish class and level in field. For bidding purposes provide polished concrete class and level indicated.

C. Verify that base slab meets requirements of Division 3 Section “Cast-In-Place Concrete,”.
   1. Finished floor flatness.
   2. Curing methods.
   3. Compressive strength.

### 3.02 APPLICATION

A. Prepare floor for hardener-sealer application with specified diamond grinding steps, followed by the application of hardener-sealer and final polishing steps.

B. **Machine grind floor surfaces to receive polished finishes level and smooth, and to depth required to reveal aggregate to exposure ~~Class A – Cement Fines; cement fines, 85 to 95 percent; fine aggregates, 5 to 15 percent;~~ Class B – Fine Aggregate; fine aggregates, 85 to 95 percent; blend of cement fines and coarse aggregate, 5 to 15 percent; per Concrete**

**Polishing Council aggregate exposure guidelines, and to match approved mockup. (*AD-01).**

C. Polish interior slabs to Level 2 - Satin, image clarity value 10 to 39 percent per Concrete Polishing Council appearance guidelines, and to match approved mockup.
   1. Image Clarity: Image clarity value per above value shall be measured in accordance with ASTM D5767; prior to application of sealer (if applicable).
   2. Haze Index: Haze index average less than 10 shall be measured in accordance with ASTM D4039; prior to application of sealer (if applicable).

D. Hardening and Polishing of Concrete Surface:
   1. Concrete must be in place a minimum of 28 days or as directed by the manufacturer before application can begin.
   2. Only a certified applicator shall apply hardener. Applicable procedures shall be followed as recommended by the product manufacturer and as required to match approved test sample.
   3. Apply hardener for polished concrete in polishing sequence and according to manufacturer's written instructions, allowing recommended drying time between successive coats.
   4. Achieve waterproofing, hardening, dust-proofing and abrasion resistance of the surface without changing the natural appearance of the concrete, except for the sheen.
   5. Finish to within 1/2-inch of vertical surfaces.
   6. Properly dispose of collected dry dust from polishing.

## 3.03 WORKMANSHIP AND CLEANING

A. Maintain polished concrete clean and free of stains and debris

B. Remove spatter from adjoining surfaces.

C. Repair damage to adjacent surfaces caused by cleaning operations.

D. Dispose of materials in accordance with local regulations.

E. Grind and polish in multiple passes with each full pass in direction perpendicular to previous pass.

F. Fill gaps, voids, and pop-outs during grinding operation.

## 3.04 PROTECTION

A. Final Protection of Polished Concrete:
   1. Following completion of the final polishing, surface shall be covered to protect from other trades. Cover with breathable product, such as Kraft paper or thin curing blanket. Do not cover with Masonite, plywood, or polyethylene.
   2. Do not allow wheeled equipment or vehicles onto concrete after polishing is complete.

B. Clean spills on slab surfaces immediately, with manufacturer's recommended chemicals and absorptive materials.

C. No haze, white residue, streaking, or burnish marks permitted.

**END OF SECTION 033543**

# SECTION 096519
# RESILIENT TILE FLOORING

## PART 1 GENERAL

### 1.01 REFERENCE STANDARDS

A. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.

B. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.

C. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

D. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.

E. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

### 1.02 SUBMITTALS

A. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.

B. Shop Drawings: Indicate seaming plans, floor patterns, and dye lot.

C. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.

D. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.

E. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

### 1.03 DELIVERY, STORAGE, AND HANDLING

A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.

B. Store all materials off of the floor in an acclimatized, weather-tight space.

C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

### 1.04 FIELD CONDITIONS

A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

### 1.05 WARRANTY

A. **See Section 017800 - Closeout Submittals, for additional warranty requirements.**

B. **Manufacturer's Warranty: Provide a ten (10) year manufacturer warranty, covering defective material and installation.**

C. ~~**Installer's Warranty: Installer shall warrant that the products have been installed in accordance with manufacturer's instructions.**~~

1. ~~**The installer shall provide a ten (10) year warranty against product failure due to excessive moisture vapor transmission through the slab.**~~ **(*AD-01)**

## PART 2 PRODUCTS

### 2.01 TILE FLOORING

A. Vinyl Composition Tile - VCT: Homogenous, with pattern and color extending throughout thickness of the tile. "Through-color" is not acceptable.
   1. Manufacturers:
      a. Armstrong Flooring; Standard Excelon Imperial Texture.
      b. Tarkett; VCT II.
      c. Vinylasa; Nova.
      d. Substitutions: See Section 016000 - Product Requirements.
   2. Minimum Requirements: Comply with ASTM F1066, Class 2 ("through-pattern").
   3. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   4. Size: 12 by 12 inch.
   5. Thickness: 0.125 inch.
   6. Color and Pattern: To be selected by Architect from manufacturer's full range.
   7. Final approval of material/product will be dependant on field match to existing VCT floor.

### 2.02 ACCESSORIES

A. Subfloor Filler: Type recommended by adhesive material manufacturer.

B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.

C. Moldings, Transition and Edge Strips: Same material as flooring.

D. Floor Polish: Fluid-applied polish recommended by resilient flooring manufacturer.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

B. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
   1. Test as Follows: Perform one of each test per 1,000 sf of installation area.
      a. Alkalinity (pH): ASTM F710.
      b. Internal Relative Humidity: ASTM F2170.
      c. Moisture Vapor Emission: ASTM F1869.

### 3.02 PREPARATION

A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.

C. Prohibit traffic until filler is fully cured.

D. Clean substrate.

## 3.03 INSTALLATION - GENERAL

A. Starting installation constitutes acceptance of subfloor conditions.

B. Install in accordance with manufacturer's written instructions.

C. Adhesive-Applied Installation:

1. Fit joints and butt seams tightly.
2. Set flooring in place, press with heavy roller to attain full adhesion.

D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.

E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.

F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

## 3.04 INSTALLATION - TILE FLOORING

A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.

B. Match installation pattern of existing

## 3.05 CLEANING

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean in accordance with manufacturer's written instructions.

C. Polish: Apply not less than three coats of floor polish. Provide additional coats as required to comply with manufacturer's recommendations.

## 3.06 PROTECTION

A. Prohibit traffic on resilient flooring for 48 hours after installation.

**END OF SECTION 096519**

# SECTION 262726 - WIRING DEVICES

## 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. **Tamper Resistant Receptacles (*AD-01)**
2. **Receptacles with integral GFCI, and associated device plates.**
3. **Dead front self-test GFCI receptacles.**
4. **Twist-locking receptacles.**
5. **Weather-resistant receptacles.**
6. **Snap switches and wall-box dimmers.**
7. **Wall-switch and exterior occupancy sensors.**

B. All receptacles, attachment plugs, and similar wiring devices shall be of the general use type

### 1.3 DEFINITIONS

A. EMI: Electromagnetic interference.

B. GFCI: Ground-fault circuit interrupter.

C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.

D. RFI: Radio-frequency interference.

E. SPD: Surge Protective Device.

F. UTP: Unshielded twisted pair.

### 1.4 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Receptacles for Owner-Furnished Equipment: Match plug configurations.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: List of legends and description of materials and process used for pre-marking wall plates.

1.6 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

1.7 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing-label warnings and instruction manuals that include labeling conditions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. 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. Cooper Wiring Devices, Inc.
2. Hubbell.
3. Leviton Manufacturing Co., Inc.
4. Pass & Seymour/Legrand (Pass & Seymour).

B. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.2 GENERAL WIRING-DEVICE REQUIREMENTS

A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a third party agency that shall be amongst those accredited by the NCBCC (North Carolina Building Code Council), and marked for intended location and application.

B. Comply with NFPA 70.

C. Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:

1. Connectors shall comply with UL 2459 and shall be made with stranding building wire.
2. Devices shall comply with the requirements in this Section.

D. All receptacles shall be federal specification grade.

**2.3 ~~STRAIGHT-BLADE RECEPTACLES~~ Tamper Resistant (*AD-01)**

**A. All receptacles shall be ~~federal specification grade~~ tamper resistant commercial grade. (*AD-01)**

**B. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.**

**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. Cooper Wiring Devices, Inc.**
**b. Hubbell.**
**c. Leviton Manufacturing Co., Inc.**
**d. Pass & Seymour/Legrand (Pass & Seymour).**

2.4 GFCI RECEPTACLES

A. General Description:

1. Straight blade, feed]through type.
2. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
3. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.

B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:

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. Cooper Wiring Devices, Inc.
b. Hubbell.
c. Leviton Manufacturing Co., Inc.
d. Pass & Seymour/Legrand (Pass & Seymour).

2.5 TWIST-LOCKING RECEPTACLES

A. Single Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration L5-20R, and UL 498.

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. Cooper Wiring Devices, Inc.
b. Hubbell.

c. Leviton Manufacturing Co., Inc.
d. Pass & Seymour/Legrand (Pass & Seymour).

2. Description:

a. Comply with NEMA WD 1, NEMA WD 6 Configuration L5-20R, and UL 498.
b. Equipment grounding contacts shall be connected only to the green grounding screw terminal of the device and with inherent electrical isolation from mounting strap. Isolation shall be integral to receptacle construction and not dependent on removable parts.

## 2.6 DEAD FRONT SELF-TEST GFCI RECEPTACLES:

A. General: Receptacles comply with UL 508, UL 943, Standard CSA C22.2 No. 14, and CSA C22.2 No. 144. Conforms to NEMA WD-1 and WD-6; cULus listed File Number E42190. RoHS Compliant.

B. 20A Specification Grade Dead Front Self-Test GFCI Receptacles: Part No. 2087; rated 20 amps, 125 volts; nylon face, body, and test/reset buttons; terminals accept #14 - #10 AWG solid or stranded copper or copper-clad conductors; SafeLock® Protection performs an automatic test every three seconds to insure that ground fault protection is active; auto-ground clip; indicator light; rated as a 1-1/2 HP motor control switch; ivory color. RoHS Compliant.

## 2.7 TOGGLE SWITCHES

A. Comply with NEMA WD 1, UL 20, and FS W-S-896.

B. Switches, 120/277 V, 20 A:

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. Single Pole:

1) Cooper; AH1221.
2) Hubbell; HBL1221.
3) Leviton; 1221-2.
4) Pass & Seymour; CSB20AC1.

b. Two Pole:

1) Cooper; AH1222.
2) Hubbell; HBL1222.
3) Leviton; 1222-2.
4) Pass & Seymour; CSB20AC2.

c. Three Way:

1) Cooper; AH1223.
2) Hubbell; HBL1223.
3) Leviton; 1223-2.
4) Pass & Seymour; CSB20AC3.

d. Four Way:

1) Cooper; AH1224.
2) Hubbell; HBL1224.
3) Leviton; 1224-2.
4) Pass & Seymour; CSB20AC4.

C. Key-Operated Switches, 120/277 V, 20 A:

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. Cooper Wiring Devices, Inc.
b. Hubbell.
c. Leviton Manufacturing Co., Inc.
d. Pass & Seymour/Legrand (Pass & Seymour).

2. Description: Single pole, with factory-supplied key in lieu of switch handle.

D. Single-Pole, Double-Throw, Momentary-Contact, Center-off Switches: 120/277 V, 20 A; for use with mechanically held lighting contactors.

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. Cooper Wiring Devices, Inc.
b. Hubbell.
c. Leviton Manufacturing Co., Inc.
d. Pass & Seymour/Legrand (Pass & Seymour).

E. Key-Operated, Single-Pole, Double-Throw, Momentary-Contact, Center-off Switches: 120/277 V, 20 A; for use with mechanically held lighting contactors, with factory-supplied key in lieu of switch handle.

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. Cooper Wiring Devices, Inc.
b. Hubbell.
c. Leviton Manufacturing Co., Inc.
d. Pass & Seymour/Legrand (Pass & Seymour).

2.8 WALL-BOX DIMMERS

A. Dimmer Switches: Modular, full-wave, solid-state units with integral, quiet on-off switches, with audible frequency and EMI/RFI suppression filters.

B. Control: Continuously adjustable slider; with single-pole or three-way switching. Comply with UL 1472.

C. LED Dimmer Switches: Modular; compatible with dimmer drivers; trim potentiometer to adjust low-end dimming; dimmer-driver combination capable of consistent dimming with low end not greater than 20 percent of full brightness.

2.9 WALL PLATES

A. Single and combination types shall match corresponding wiring devices.

1. Plate-Securing Screws: Metal with head color to match plate finish.
2. Material for Finished Spaces: Smooth, high-impact thermoplastic Material for Unfinished Spaces: Galvanized steel.

2.10 FINISHES

.

1. Wiring Devices Connected to Emergency Power System: [Red] <Insert color>.
2. SPD Devices: Blue.

B. Wall Plate Color: For plastic covers, match device color.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B. Coordination with Other Trades:

1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
4. Install wiring devices after all wall preparation, including painting, is complete.

C. Conductors:

1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
4. Existing Conductors:

    a. Cut back and pigtail, or replace all damaged conductors.
    b. Straighten conductors that remain and remove corrosion and foreign matter.
    c. Pigtailing existing conductors is permitted, provided the outlet box is large enough.

D. Device Installation:

1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches in length.
5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
8. Tighten unused terminal screws on the device.
9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

E. Receptacle Orientation:

1. Install ground pin of vertically mounted receptacles up, and on horizontally mounted receptacles to the right.

F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G. Dimmers:

1. Install dimmers within terms of their listing.
2. Verify that dimmers used for fan speed control are listed for that application.
3. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.

H. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.

I. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

## 3.2 GFCI RECEPTACLES

A. Install non-feed-through-type GFCI receptacles where protection of downstream receptacles is not required.

## 3.3 IDENTIFICATION

A. Comply with Section 260553 "Identification for Electrical Systems."

B. Identify each receptacle with panelboard identification and circuit number. Use hot, stamped, or engraved machine printing with black-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

## 3.4 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

1. In healthcare facilities, prepare reports that comply with recommendations in NFPA 99.
2. Test Instruments: Use instruments that comply with UL 1436.
3. Test Instrument for Convenience Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.

B. Tests for Convenience Receptacles:

1. Line Voltage: Acceptable range is 105 to 132 V.
2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is unacceptable.
3. Ground Impedance: Values of up to 2 ohms are acceptable.
4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
5. Using the test plug, verify that the device and its outlet box are securely mounted.
6. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

C. Wiring device will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

END OF SECTION 262726

BID SET

# HALIFAX CO MULTIPLE RENOVATIONS

## HALIFAX COUNTY, NC

### HALIFAX COUNTY SCHOOLS


MOSELEYARCHITECTS

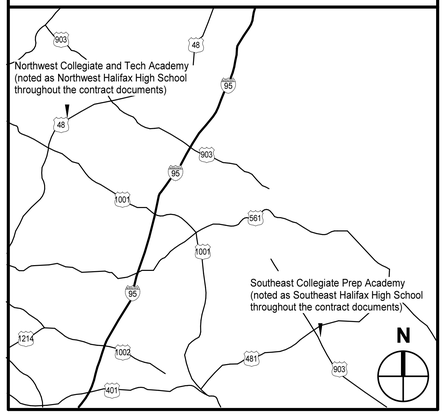
911 N. WEST STREET, SUITE 205 RALEIGH, NORTH CAROLINA 27603
PHONE (919) 840-0091

MOSELEYARCHITECTS.COM

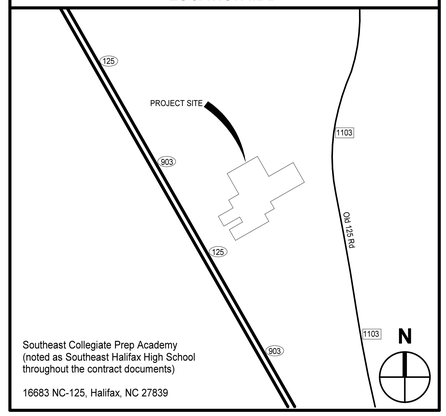

FOODESIGN ASSOCIATES — FOOD FACILITIES

220 N AMES STREET, SUITE 100, MATTHEWS, NC 28105 — MATTHEWS, NC

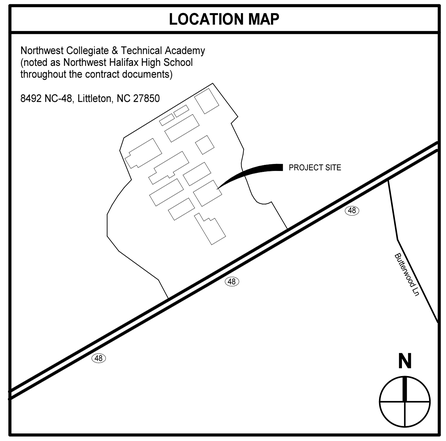
**VICINITY MAP**




**LOCATION MAP**




**LOCATION MAP**




**DRAWING INDEX**



*AD-01 *AD-01

THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL.
IN CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.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ASHLEY P. DENNIS — 11711 — 1/17/24 — NORTH CAROLINA — RALEIGH, NC

MOSELEY ARCHITECTS, P.C. — REGISTERED ARCHITECTS CORPORATION — 50149 — NORTH CAROLINA — RALEIGH, NC

HALIFAX CO MULTIPLE RENOVATIONS
HALIFAX COUNTY SCHOOLS
16683 NC-125, HALIFAX, NC 27839
8492 NC-48, LITTLETON, NC 27850

PROJECT NO: 630516
DATE: JANUARY 17, 2024

REVISIONS

| DATE | DESCRIPTION |
|---|---|
| 02/14/24 | *AD-01 |

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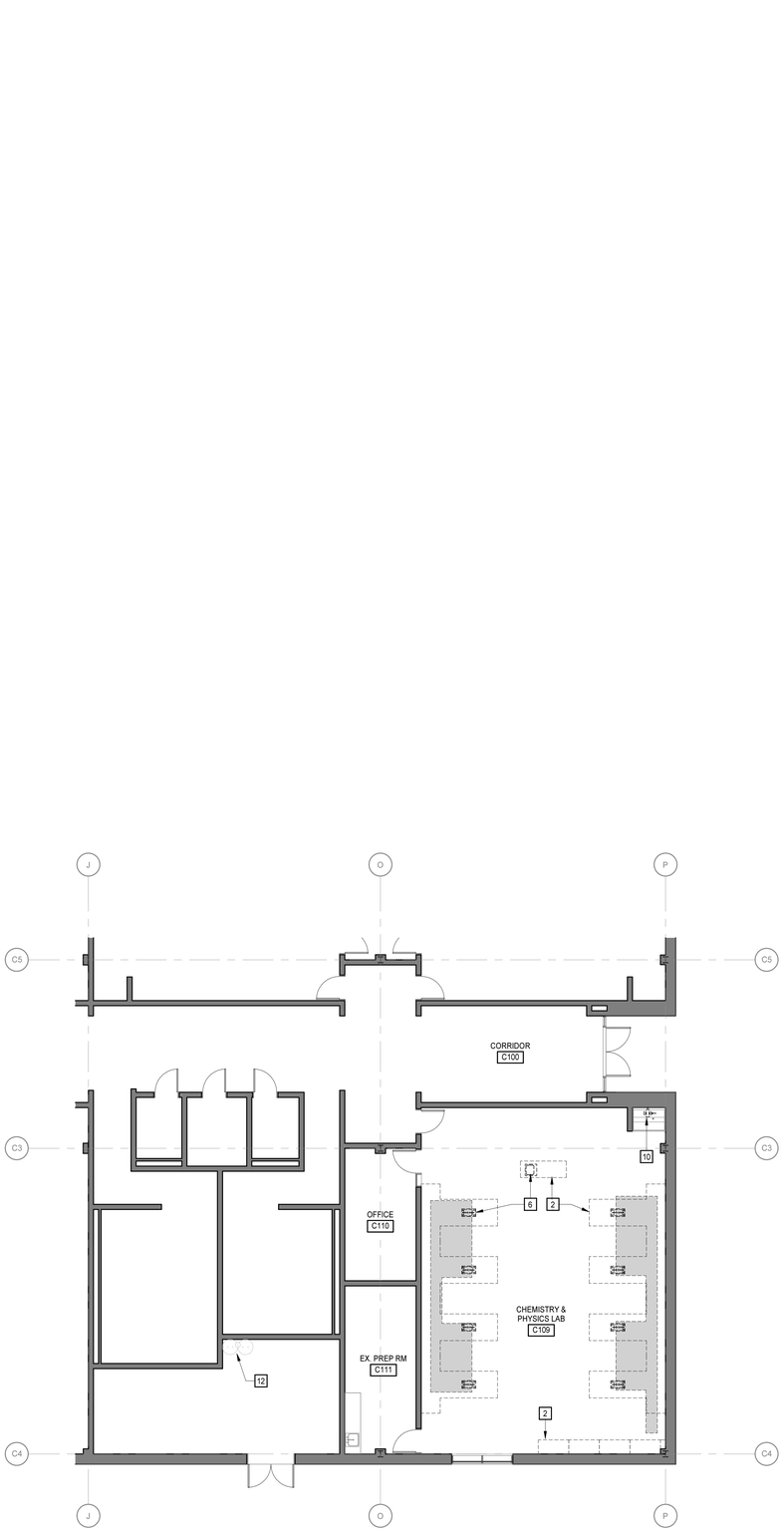
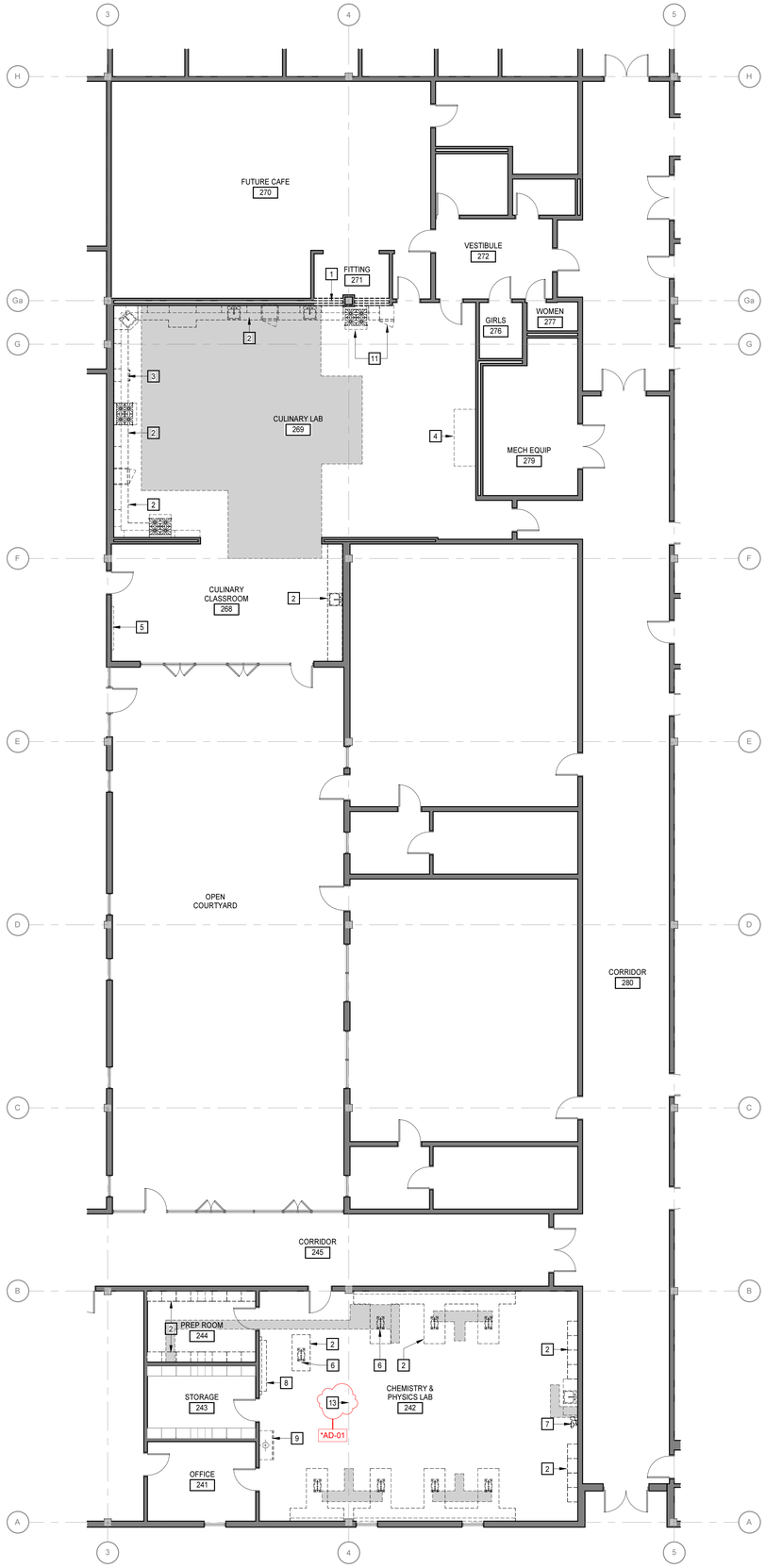



## DEMOLITION PLAN - NORTHWEST HALIFAX HIGH SCHOOL

1/8" = 1'-0"




## DEMOLITION PLAN - SOUTHEAST HALIFAX HIGH SCHOOL

1/8" = 1'-0"

## DEMOLITION PLAN LEGEND

APPLIES TO DRAWINGS A1.0

- EXISTING PARTITION/ WALL/ ITEM TO REMAIN
- REMOVE EXISTING PARTITION/WALL/ITEM
- REMOVE EXISTING WINDOW ASSEMBLY AND FRAMING, INCLUDING ANCHORS
- REMOVE EXISTING DOOR AND FRAME ASSEMBLY INCLUDING DOOR HARDWARE, ANCHORS, AND THRESHOLD (WHERE OCCURS).
- REMOVE EXISTING PLUMBING FIXTURE. REFER TO PLUMBING DEMOLITION PLAN FOR ADDITIONAL INFORMATION.
- SAWCUT EXISTING CONCRETE SLAB AS NEEDED FOR REMOVAL AND INSTALLATION OF UTILITIES. REFER TO PLUMBING DRAWINGS.

## DEMOLITION PLAN GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS INDICATED ON THE DRAWINGS. COORDINATE THE SCOPE, DIMENSIONS, AND EXTENT OF DEMOLITION WORK TO BE PERFORMED WITH THE WORK.

B. PLAN DIMENSION FOR EXISTING CONDITIONS ARE TO FACE OF FINISH OR CENTERLINE OF STRUCTURAL FRAMING, UNLESS OTHERWISE NOTED. THICKNESS OF MASONRY BASED ON NORMAL SIZES. ALL DIMENSIONS SHOWN FOR EXISTING CONSTRUCTION ARE APPROXIMATE.

C. ALL EXPOSED SURFACES AFFECTED BY THE DEMOLITION WORK AND WHICH SHALL REMAIN EXPOSED TO VIEW SHALL BE PATCHED MATCH EXISTING ADJACENT SURFACES UNLESS SPECIFICALLY INDICATED OTHERWISE.

D. ACTUAL FIELD CONDITIONS WHICH ARE CONCEALED BY EXISTING CONSTRUCTION MAY VARY FROM THOSE INDICATED ON THE DRAWINGS. INVESTIGATE AND EMASURE EXTENTS OF ANY CONFLICTS AND PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT.

E. PRIOR TO DEMOLITION, COORDINATE WITH OWNER SCHEDULES FOR THEIR TEMPORARY RELOCATION OF EXISTING EQUIPMENT IN WORK AREAS.

F. ROOMS 242, 244, 268, 269, 271, C109: REMOVE EXISTING CEILING TILES AND GRIDS, LIGHT FIXTURES, AND DIFFUSERS. REMOVE AND REPLACING CEILING GRID AS NEEDED FOR WORK ABOVE CEILING. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR EXTENT OF DEMOLITION ABOVE FINISHED CEILING.

G. ROOMS 268, 269, 271, C109: REMOVE VCT FLOORING.

H. ROOMS 242, 244: PROTECT EXISTING FLOORING UNO.

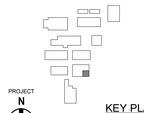
*AD-01 I. ROOM 269, 271: REMOVE EXPANSION JOINT COVER ALONG LENGTH OF GRIDLINE 4.

## DEMOLITION PLAN KEYNOTES

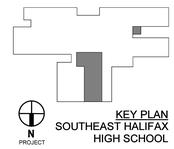
REPRESENTED BY n

APPLIES TO DRAWINGS A1.n SERIES

| | |
|---|---|
| 1 | REMOVE FULL HEIGHT OF CMU WALL AND PLUMBING TO EXTENT SHOWN. OPENING PER STRUCTURAL. |
| 2 | REMOVE CASEWORK AND SINK, WHERE OCCURS |
| 3 | REMOVE DISHWASHER |
| 4 | REMOVE EXHAUST HOOD |
| 5 | REMOVE AND PROTECT EXISTING SMARTBOARD FOR RE-INSTALLATION |
| 6 | REMOVE GAS VALVE AND PIPING AT EACH STUDENT AND DEMONSTRATION STATION. REFER TO PLUMBING DEMOLITION PLANS. |
| 7 | REMOVE EMERGENCY EYE WASH |
| 8 | REMOVE CHALKBOARD. REMOVE AND REINSTALL WHITEBOARD. |
| 9 | REMOVE FUME HOOD AND CASEWORK |
| 10 | REMOVE EMERGENCY EYE WASH & SHOWERHEAD |
| 11 | ALL EXISTING RANGES AND REFRIGERATORS TO BE REMOVED BY OWNER PRIOR TO DEMOLITION. COORDINATE WITH OWNER SCHEDULE. |
| 12 | REMOVE & REPLACE WATER HEATERS. REFER TO PLUMBING DRAWINGS |
| *AD-01 13 | PROTECT EXISTING EXPANSION JOINT COVER ALONG GRIDLINE. |




KEY PLAN
NORTHWEST HALIFAX HIGH SCHOOL




KEY PLAN
SOUTHEAST HALIFAX HIGH SCHOOL

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RALEIGH, NC

# HALIFAX CO MULTIPLE RENOVATIONS

HALIFAX COUNTY SCHOOLS
16683 NC-125, HALIFAX, NC 27839
8492 NC-48, LITTLETON, NC 27850

PROJECT NO: 830516
DATE: JANUARY 17, 2024

| REVISIONS | |
|---|---|
| DATE | DESCRIPTION |
| 02/14/24 | *AD-01 |

DEMOLITION PLANS

A1.0

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## FINISH SCHEDULE - SOUTHEAST HALIFAX HIGH SCHOOL

| NUMBER | NAME | FLOOR | BASE | WALLS | | | | CEILING | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NORTH | EAST | SOUTH | WEST | | |
| 242 | CHEMISTRY & PHYSICS LAB | EX/CONC-POL | RB | PT | PT | PT | PT | ACP-1 | INFILL SAW CUT AREAS WITH POLISHED CONCRETE. REFER TO DETAILS ON S1.1. ALTERNATE 3: PROVIDE TERRAZZO (TO MATCH EXISTING) IN LIEU OF POLISHED CONCRETE. |
| 244 | PREP ROOM | EX/CONC-POL | RB | PT | PT | PT | PT | ACP-1 | INFILL SAW CUT AREAS WITH POLISHED CONCRETE. REFER TO DETAILS ON S1.1. ALTERNATE 3: PROVIDE TERRAZZO (TO MATCH EXISTING) IN LIEU OF POLISHED CONCRETE. |
| 268 | CULINARY CLASSROOM | VCT | RB | PT | PT | PT | PT | ACP-1 | |
| 269 | CULINARY LAB | RES | RB | EPX PT | EPX PT | EPX PT | EPX PT | ACP-2, GYP-PT | INFILL AREA ALONG GRIDLINE 4 WITH RES WHERE EXISTING EXPANSION JOINT COVER IS REMOVED |
| 269A | DRY STORAGE | RES | RB | EPX PT | EPX PT | EPX PT | EPX PT | ACP-1 | |

*AD-01

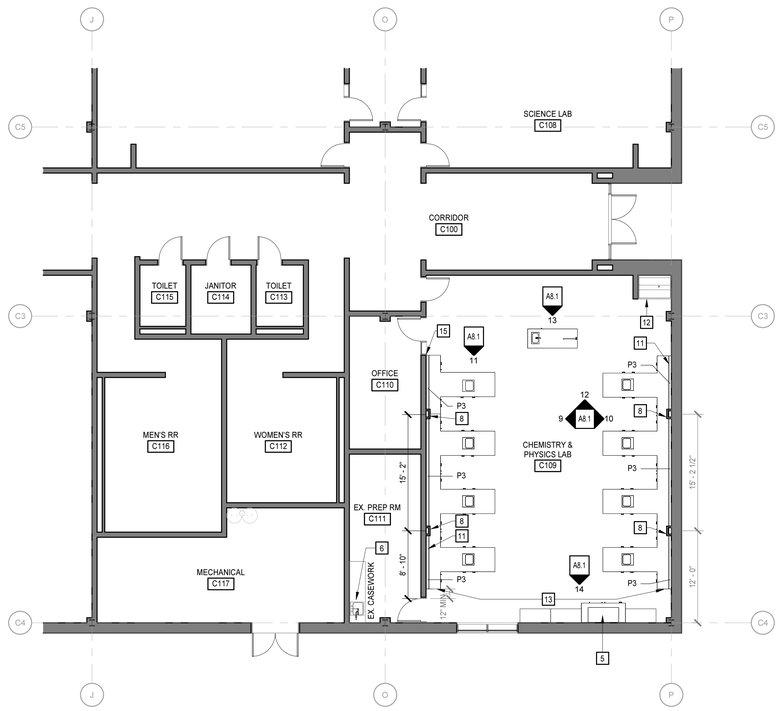
*AD-01

## FINISH SCHEDULE - NORTHWEST HALIFAX HIGH SCHOOL

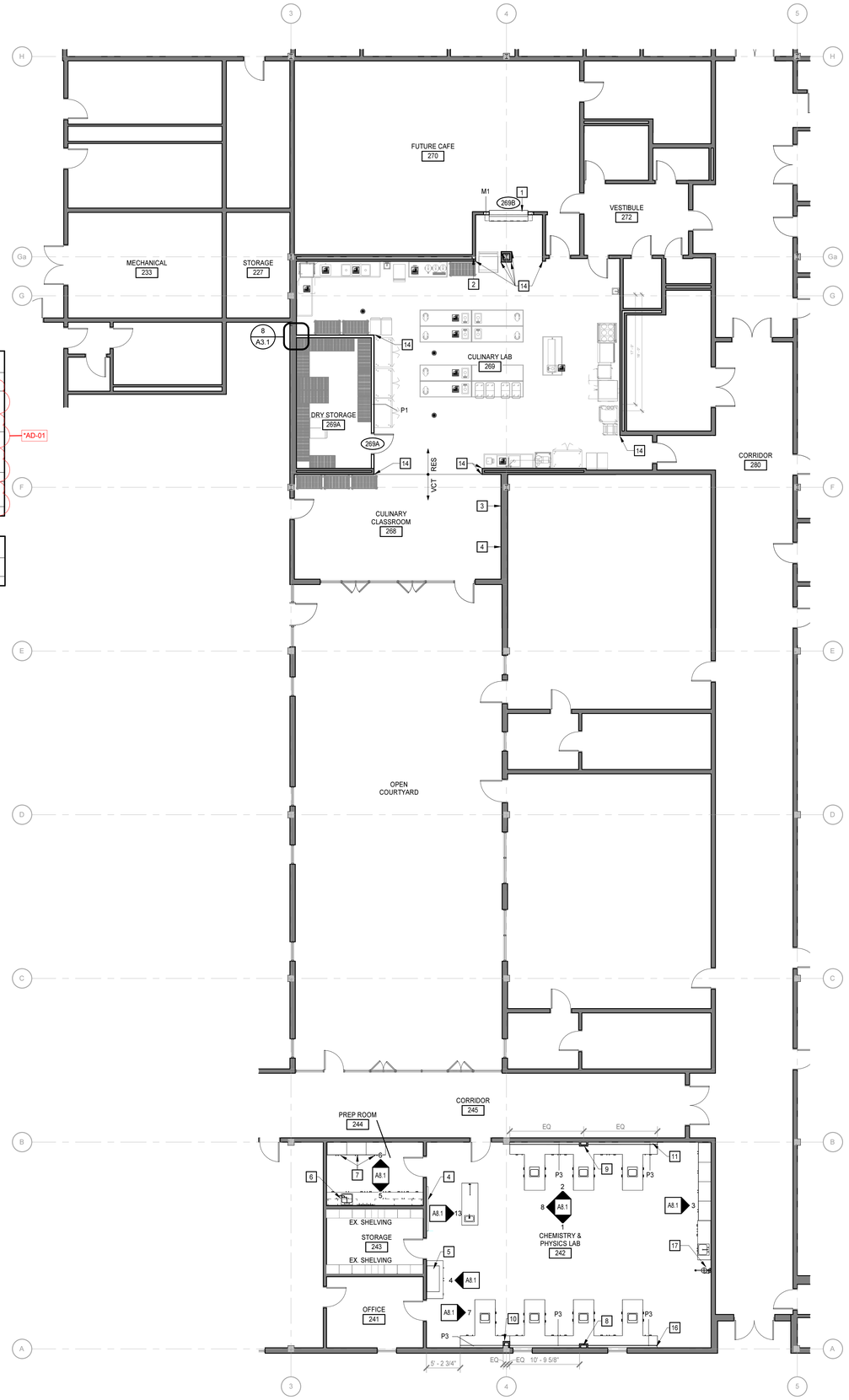
| NUMBER | NAME | FLOOR | BASE | WALLS | | | | CEILING | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NORTH | EAST | SOUTH | WEST | | |
| C109 | CHEMISTRY & PHYSICS LAB | VCT | RB | PT | PT | PT | PT | ACP-1 | |

## INTERIOR FINISH LEGEND - BASIS OF DESIGN

| SPECIFICATION | TAG | MATERIAL | MANUFACTURER | PRODUCT - COLOR |
|---|---|---|---|---|
| 95100 | ACP-1 | ACOUSTICAL CEILING PANELS | ARMSTRONG | SCHOOL ZONE FINE FISSURE |
| 95100 | ACP-2 | ACOUSTICAL CEILING PANELS | ARMSTRONG | ULTIMA HEALTH ZONE |
| 96513 | TS-1 | TRANSISTION STRIP | SCHLUTER SYSTEM | SCHIENE WITH RADIUS PROFILE, SS MATERIAL |
| 96513 | RB-1 | RUBBER BASE | TARKETT | 4"H RUBBER COVE BASE; COLOR TBD |
| 96519 | VCT-1 | VINYL COMPOSITION TILE | TARKETT | VCT II; COLOR TBD |
| 96700 | RES-1 | RESINOUS FLOORING | DUR-A-FLEX | HYBRI-FLEX, MICRO-CHIP, COLOR TBD |
| 99100 | EPX-PT | EPOXY PAINT | BENJAMIN MOORE | LOW VOC |
| 99100 | PT-1 | PAINT | BENJAMIN MOORE | LOW VOC |




FLOOR PLAN - NORTHWEST HALIFAX HIGH SCHOOL
1/8" = 1'-0"




FLOOR PLAN - SOUTHEAST HALIFAX HIGH SCHOOL
1/8" = 1'-0"

## FLOOR PLAN KEYNOTES

REPRESENTED BY n

APPLIES TO DRAWINGS A2.n

| | |
|---|---|
| 1 | TRANSACTION COUNTER |
| 2 | INFILL WITH CONCRETE BLOCK. PROVIDE PAINTED FINISH TO MATCH ADJACENT WALL |
| 3 | SMARTBOARD (NIC) |
| 4 | WHITEBOARD (NIC) |
| 5 | FUME HOOD |
| 6 | DECK-MOUNTED EYE WASH |
| 7 | CHEMICAL STORAGE CABINET |
| 8 | PLUMBING CHASE, INSIDE CLEAR: 10"WX7"D |
| 9 | PLUMBING CHASE, INSIDE CLEAR: 12"WX7"D |
| 10 | PLUMBING CHASE, ALIGN WITH WIDTH OF COLUMN X 9"D |
| 11 | 42" KNEE WALL UNO |
| 12 | EXISTING SHOWER BASIN & DRAIN. NEW SHOWERHEAD FIXTURE PER PLUMBING |
| 13 | ALIGN CASEWORK |
| 14 | CORNER GUARD |
| 15 | ALIGN KNEE WALL AND CASEWORK WITH DOOR FRAME |
| 16 | ALIGN HEIGHT OF KNEE WALL TO EXISTING WINDOW SILL. |
| 17 | EMERGENCY EYE WASH & SHOWER COMBO |

KEY PLAN
NORTHWEST HALIFAX HIGH SCHOOL

KEY PLAN
SOUTHEAST HALIFAX HIGH SCHOOL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RALEIGH, NC

# HALIFAX CO MULTIPLE RENOVATIONS

HALIFAX COUNTY SCHOOLS
16683 NC-125, HALIFAX, NC 27839
8492 NC-48, LITTLETON, NC 27850

PROJECT NO: 630516
DATE: JANUARY 17, 2024

| REVISIONS | |
|---|---|
| DATE | DESCRIPTION |
| 02/14/24 | *AD-01 |

FLOOR PLANS & FINISH SCHEDULE

A2.0

2/14/2024 10:26:02 AM

## GENERAL

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE (NCBC), 2018 EDITION, EFFECTIVE JANUARY 1, 2019.
2. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND THE DRAWINGS OF THE OTHER ENGINEERING DISCIPLINES.
3. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUANTITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
4. VERIFY AND COORDINATE MECHANICAL UNIT SUPPORTS AND OPENINGS WITH EQUIPMENT PURCHASED FOR THE PROJECT. COORDINATE REQUIREMENTS FOR SLEEVES, HANGERS, INSERTS, ANCHORS AND ALL OTHER ITEMS TO BE SET IN STRUCTURAL WORK.
5. CONTRACTOR SHALL CONDUCT PRE-INSTALL MEETINGS ON PROJECT SITE PRIOR TO COMMENCEMENT OF WORK. REFER TO PROJECT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. MEETINGS WILL BE LED BY GENERAL CONTRACTOR AND ATTENDANCE BY MOSELEY ARCHITECTS IS FOR INFORMATIONAL PURPOSES ONLY. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ATTENDANCE OF ALL REQUIRED TRADES AND SUBCONTRACTORS INCLUDING THE SPECIAL INSPECTOR.

## FOUNDATIONS

1. THE GEOTECHNICAL ENGINEER FOR THE OWNERS TESTING AGENCY SHALL VERIFY BEARING CAPACITY AND SUITABILITY OF SUBGRADE PRIOR TO PLACING GRADE SLABS.
2. SELECT AND PLACE CONTROLLED COMPACTED FILL UNDER DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER FOR THE OWNER'S TESTING AGENCY.
3. FOOTING STEPS FOR UNDERSLAB UTILITIES INDICATED ON FOUNDATION PLANS SHALL BE CONSIDERED APPROXIMATE. COORDINATE FOOTINGS WITH ACTUAL LOCATION, SIZE AND INVERT OF ALL UNDERGROUND PIPE (AND CONDUIT). REFER TO "FOOTING STEP" DETAIL TO STEP WALL FOOTING DOWN TO ALLOW UNDERSLAB PIPING TO PASS ABOVE THE FOOTING. ALTERNATELY, REFER TO "FOOTING SLEEVE" AND "PIPE TRENCH BACKFILL AT FOOTING" DETAILS TO ALLOW UNDERSLAB PIPING TO PASS BELOW THE TOP OF THE WALL FOOTING.
4. AVOID INFLUENCE OF PIPE TRENCH PARALLEL TO WALL FOOTING AND / OR ADJACENT TO COLUMN FOOTING. REFER TO "FOOTING EXCAVATION LIMITS".

## CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE".
2. CONCRETE SHALL BE NORMAL WEIGHT (OR LIGHTWEIGHT AS INDICATED) AND SHALL OBTAIN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI (F'c).
3. REINFORCING STEEL SHALL BE AS FOLLOWS:
   - REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED
   - WELDED WIRE FABRIC: ASTM A1064, SHEET TYPE ONLY
4. MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE UNO:

| | |
|---|---|
| A. UNFORMED SURFACE CAST AGAINST EARTH | 3 IN |
| B. FORMED SURFACE EXPOSED TO EARTH/WEATHER | 2 IN |
| C. FORMED SLABS AND WALLS NOT EXPOSED TO EARTH/WEATHER FOR #11 AND SMALLER BAR | 3/4 IN |
| D. ALL OTHER FORMED ELEMENTS NOT EXPOSED TO EARTH/WEATHER | 1 1/2 IN |

## CONCRETE MASONRY UNITS (CMU)

1. ALL MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES WITH COMMENTARY" AND TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES WITH COMMENTARY".
2. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY(F'm), SHALL BE 2000 PSI, DETERMINED IN ACCORDANCE WITH THE UNIT STRENGTH METHOD PER TMS 602, UNLESS NOTED OTHERWISE.
3. GROUT SHALL CONFORM TO ASTM C476 AND SHALL BE PROPORTIONED TO OBTAIN MINIMUM ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
4. PLACE GROUT IN ACCORDANCE WITH TMS 402. ALLOW A MINIMUM OF 4 HOURS FOR MASONRY TO SET PRIOR TO PLACING GROUT.
5. FILL COLLAR JOINTS OF COMPOSITE WALLS SOLID WITH MORTAR AS THE WALLS PROGRESS. BOND WYTHES OF COMPOSITE WALLS TOGETHER USING HORIZONTAL JOINT REINFORCING @ 16" ON CENTER, UNLESS NOTED OTHERWISE.
6. PROVIDE VERTICAL REINFORCING STEEL OF SIZE AND SPACING INDICATED. LAP SPLICE LENGTHS SHALL BE AS FOLLOWS:

| | |
|---|---|
| #4 BAR AND SMALLER | 26 INCHES |
| #5 BAR | 34 INCHES |
| #6 BAR | 38 INCHES |
| #7 BAR | 45 INCHES |

7. PROVIDE POSITIONERS TO HOLD VERTICAL WALL REINFORCING STEEL IN PROPER ALIGNMENT.
8. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60.
9. DO NOT PLACE CONDUIT IN CELLS CONTAINING STRUCTURAL REINFORCING.
10. AVOID PLACING CONDUIT IN CELLS CONTAINING STRUCTURAL REINFORCING, WHERE POSSIBLE.
11. NO SWITCHES OR BOXES WITHIN 20 INCHES OF A DOOR JAMB.
12. MASONRY WALLS OF HOLLOW UNITS WHICH CHANGE THICKNESS SHALL HAVE A CONTINUOUS GROUT FILLED COURSE BELOW THE TRANSITION. IF WALL THICKNESS IS GREATER ABOVE THE TRANSITION, THE COURSE ABOVE THE TRANSITION SHALL ALSO BE GROUTED SOLID.
13. FILL CMU CELLS WITH GROUT FROM TOP OF FOOTING TO TOP OF SLAB-ON-GRADE ELEVATION.
14. MASONRY WALL CONTROL JOINTS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS AND DETAILS. COORDINATE JOINT LOCATIONS TO AVOID BEAM BEARING LOCATIONS. DO NOT BREAK BOND BEAM REINFORCEMENT AT CONTROL JOINTS.

## TEMPORARY SHORING

1. PROVIDE TEMPORARY SHORING AND BRACING TO MAINTAIN THE EXISTING STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT CONSTRUCTION AND LATERAL BRACING IS IN PLACE.
2. THE TEMPORARY SHORING DIAGRAMS ARE CONCEPTUAL ONLY. DESIGN OF TEMPORARY SHORING SHALL BE PROVIDED BY THE CONTRACTOR. DESIGN CALCULATIONS AND SHORING DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.
3. CAREFULLY EVALUATE THE SITUATION WHICH EXISTS PRIOR TO COMMENCEMENT OF WORK. NOTIFY THE ARCHITECT IF ANY CONDITIONS ARE DETECTED WHICH MAY AFFECT THE STABILITY OF THE EXISTING STRUCTURE OR THE SHORING.
4. MONITOR THE PERFORMANCE OF THE TEMPORARY SHORING AT ALL TIMES DURING THIS WORK AND HAVE ADDITIONAL SHORING READILY AVAILABLE ON SITE IN THE EVENT OF DEFLECTION OR OTHER MOVEMENT OF THE SHORING.

## STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING AISC DOCUMENTS:
   AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
   AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
   RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS"
2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

| | |
|---|---|
| WIDE FLANGE SHAPES, CHANNELS AND MISC CHANNELS | ASTM A992 (FY=50 KSI) |
| ANGLES, S-SHAPES AND M-SHAPES | ASTM A572 (FY=50 KSI) |
| PLATES & BARS (TO 4" THICK) | ASTM A572 (FY=50 KSI) |
| PLATES & BARS (OVER 4" THICK) | ASTM A36 (FY=32 KSI) |
| HIGH STRENGTH BOLTS (CONVENTIONAL) | ASTM F3125, GRADE A325 OR A490 (TYPE 1) |
| WASHERS | ASTM F436 (FLAT AND BEVELED) |
| ANCHOR RODS | ASTM F1554, GRADE 55 INCLUDE SUPPLEMENT S1 |
| WELDING ELECTRODES | E70 (LOW HYDROGEN) |

## RENOVATION

1. EXISTING CONSTRUCTION INDICATED ON THE STRUCTURAL DRAWINGS IS BASED ON INFORMATION OBTAINED FROM THE ORIGINAL DESIGN DRAWINGS AND ON LIMITED OBSERVATIONS OF EXISTING CONDITIONS. THIS INFORMATION, INCLUDING STRUCTURAL COMPONENT TYPE, SIZE AND ORIENTATION HAS NOT BEEN CONFIRMED IN ALL CASES, AND MAY NOT MATCH "AS-BUILT" EXISTING CONSTRUCTION. ALL EXISTING CONDITIONS AND DIMENSIONS RELATING TO THE NEW WORK SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION OF STRUCTURAL ELEMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
2. EXISTING CONSTRUCTION IS INDICATED USING A LIGHTER LINE WEIGHT THAN NEW CONSTRUCTION IN PLANS AND SECTIONS.

## LINTEL NOTES

1. LINTELS FOR ARCHITECTURAL OPENINGS (WINDOWS, DOORS, LOUVERS) IN BEARING WALLS AND EXTERIOR WALLS ARE IDENTIFIED BY MARK NUMBER ON THE FRAMING PLAN(S) AND INCLUDED IN THE LINTEL SCHEDULE.
2. LINTELS FOR ARCHITECTURAL OPENINGS IN NON-LOAD BEARING WALLS AND OTHER WALLS WHICH ARE NOT INDICATED ON THE FRAMING PLAN(S) SHALL BE CONSTRUCTED PER NOTES BELOW.

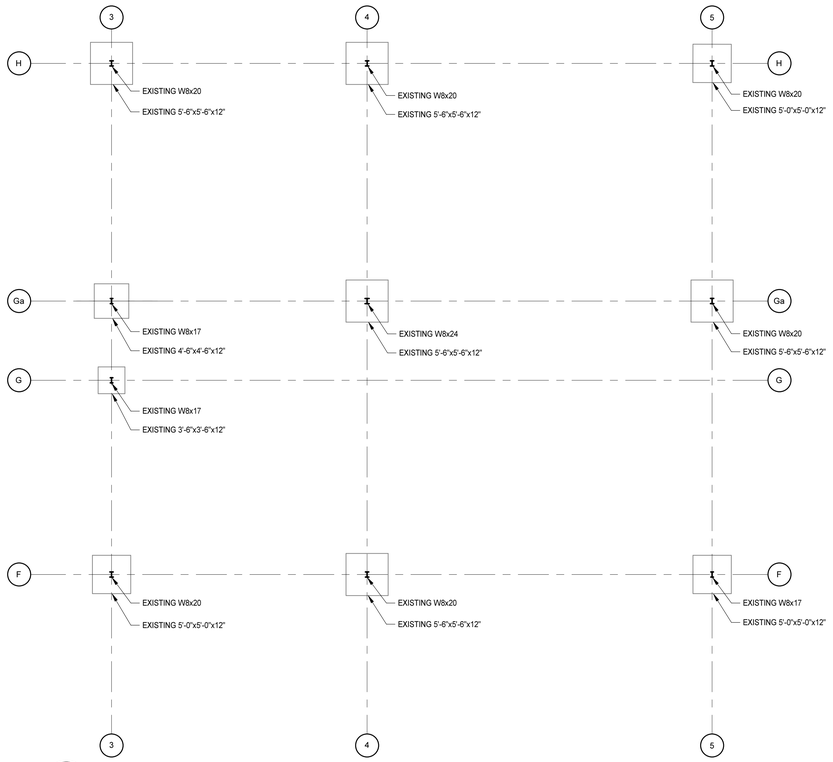
   A. STEEL ANGLE LINTELS

   PROVIDE ONE ANGLE FOR EACH NOMINAL 4" OF WALL THICKNESS PER THE FOLLOWING SCHEDULE.

| MASONRY OPENING | ANGLE SIZE |
|---|---|
| UP TO 5'-0" | L3 1/2x3 1/2x 5/16 |
| 5'-1" TO 6'-0" | L4x3 1/2x 5/16 (LLV) |
| 6'-1" TO 7'-0" | L5x3 1/2x 3/8 (LLV) |
| OVER 7'-0" | AS DETAILED |

   FOR OPENINGS IN 10" CMU, HORIZONTAL LEGS OF ANGLES SHALL BE A COMBINATION OF 5" AND 4".

   FOR OPENINGS IN 6" CMU REQUIRING STEEL LINTELS, USE WT7x11 UP TO 7'-0" OPENING.
3. LINTELS FOR MECHANICAL DUCTWORK PENETRATIONS NOT OTHERWISE DETAILED SHALL BE AS PROVIDED IN NOTE A ABOVE.
4. LINTELS SHALL BEAR 8" ONTO SOLID OR GROUT FILLED MASONRY, UNLESS OTHERWISE INDICATED.
5. LINTELS ARE REQUIRED OVER ALL MASONRY OPENINGS GREATER THAN 8" IN WIDTH.
6. LINTELS ARE NOT REQUIRED ABOVE HOLLOW METAL FRAMES IN OPENINGS 3'-4" OR LESS IN 6" NON-BEARING MASONRY PARTITIONS. GROUT HEAD OF FRAMES SOLID BEFORE PLACING MASONRY.
7. ALL LINTELS IN EXTERIOR WALLS SHALL BE GALVANIZED.

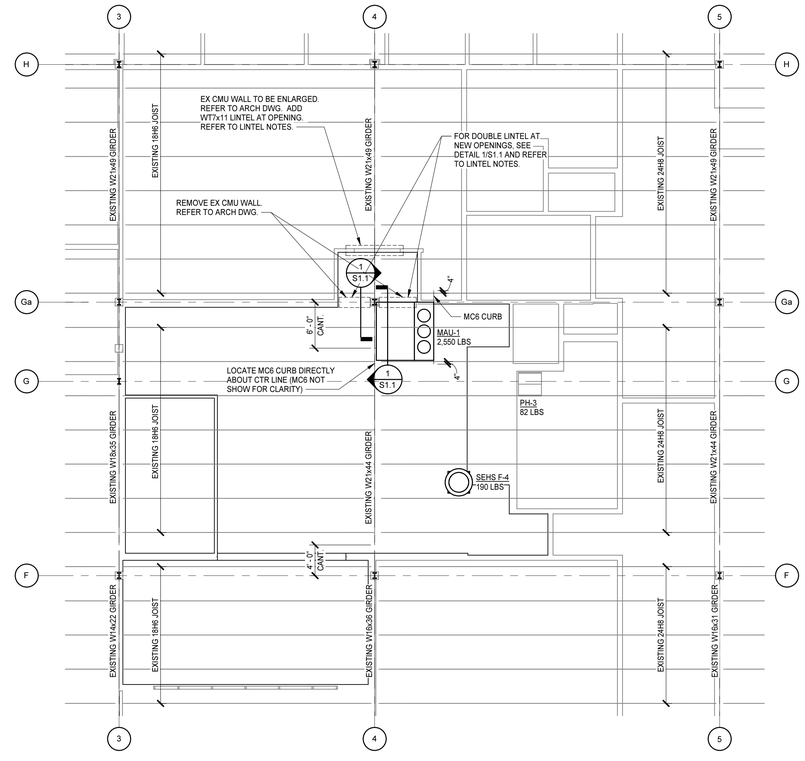



## PARTIAL EXISTING FOUNDATION PLAN

1/8" = 1'-0"

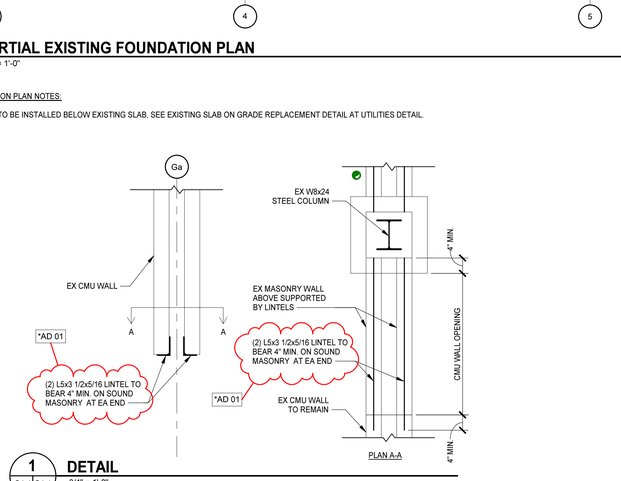
EXISTING FOUNDATION PLAN NOTES:

1. FOR NEW PIPES TO BE INSTALLED BELOW EXISTING SLAB, SEE EXISTING SLAB ON GRADE REPLACEMENT DETAIL AT UTILITIES DETAIL.



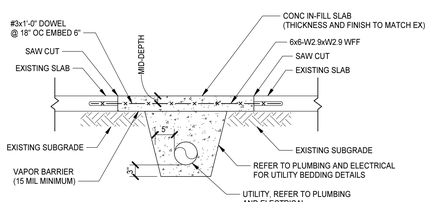

## PARTIAL EXISTING ROOF PLAN FRAMING

1/8" = 1'-0"



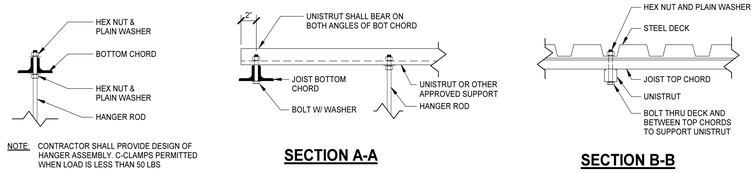

## 1 S1.1 S1.1 DETAIL

3/4" = 1'-0"




NOTE: GEOTECH/TESTING FIRM TO VERIFY CAPACITY AND SUITABLE SUBGRADE PRIOR TO PLACING.

## EXISTING SLAB ON GRADE REPLACEMENT DETAIL AT UTILITIES

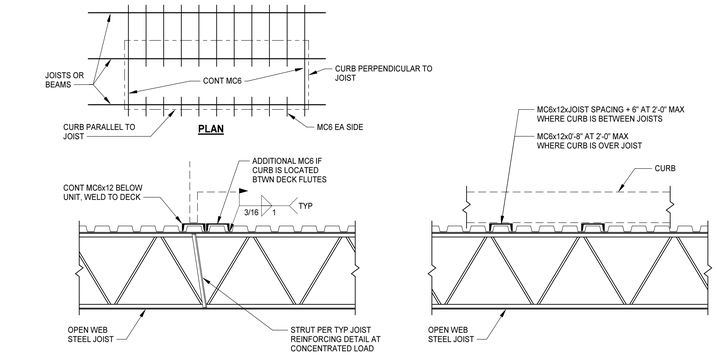



NOTE: CONTRACTOR SHALL PROVIDE DESIGN OF HANGER ASSEMBLY. C-CLAMPS PERMITTED WHEN LOAD IS LESS THAN 50 LBS

## SECTION A-A

## SECTION B-B

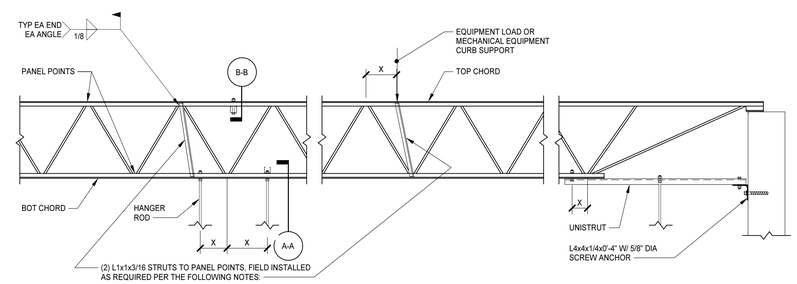
## TYPICAL CONCENTRATED LOAD ON STEEL JOIST




CURB PERPENDICULAR TO JOIST

CURB PARALLEL TO JOIST

## RTU CURB SUPPORT DETAILS




EX JOISTS:

1. WHERE UTILITIES RUN PARALLEL TO JOISTS, INDIVIDUAL HANGERS SHALL BE SPACED SUCH THAT HANGER LOAD (IF DIRECTLY BELOW JOIST), OR UNISTRUT REACTION (IF PIPE IS BETWEEN JOISTS) DOES NOT EXCEED 200 LBS.
2. WHERE UTILITIES RUN PERPENDICULAR TO JOISTS, INDIVIDUAL HANGERS SHALL BE SPACED SUCH THAT HANGER LOAD DOES NOT EXCEED 200 LBS.
3. IF INDIVIDUAL HANGER LOAD EXCEEDS 200 LBS ON ANY JOIST, AND DIMENSION 'X' EXCEEDS 6", STRUTS SHALL BE INSTALLED AS INDICATED ABOVE.
4. WHERE MULTIPLE HANGERS ARE LOCATED BETWEEN PANEL POINTS, THE CUMULATIVE LOAD SHALL NOT EXCEED 200 LBS.

GENERAL:

1. C-CLAMPS SHALL NOT BE USED WHERE HANGER LOAD EXCEEDS 50 LBS.

NOTE:
THE GENERAL CONTRACTOR SHALL COORDINATE THESE REQUIREMENTS FOR HANGER SPACING AND JOIST REINFORCING STRUTS WITH MECHANICAL, PLUMBING, AND FIRE PROTECTION TRADES IN ORDER TO ENSURE THAT THESE REQUIREMENTS ARE ACCOUNTED FOR IN THE BID PRICE AND IMPLEMENTED IN THE FIELD. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE REINFORCING STRUTS IN ALL CASES WHERE THE HANGER LOAD EXCEEDS THE MAXIMUM. IF HANGER LOCATIONS ARE COORDINATED TO COMPLY WITH THE MAXIMUM HANGER LOADS INDICATED IN THIS DETAIL, THE NUMBER OF JOIST REINFORCING STRUTS WILL BE MINIMIZED.

## TYPICAL LOAD SUPPORTED FROM JOIST DETAIL


MOSELEY ARCHITECTS
911 N. WEST STREET, SUITE 205 RALEIGH, NORTH CAROLINA 27603
PHONE (919) 840-0091
MOSELEYARCHITECTS.COM


NORTH CAROLINA PROFESSIONAL SEAL 045706 1-17-24 ENGINEER PAUL J. GAGNON

MOSELEY ARCHITECTS, P.A. ENGINEERING CORPORATION C-3469 NORTH CAROLINA RALEIGH, NC

# HALIFAX CO MULTIPLE RENOVATIONS

HALIFAX COUNTY SCHOOLS
16683 NC-125, HALIFAX, NC 27839
8492 NC-48, LITTLETON, NC 27580

| PROJECT NO: 630516 | |
|---|---|
| DATE: | January 17, 2023 |
| REVISIONS | |
| DATE | DESCRIPTION |
| 02/14/24 | "AD 01 |

EXISTING FOUNDATION AND ROOF FRAMING PLAN AND GENERAL NOTES

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## PUMP SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | SYSTEM TYPE | PUMP TYPE | OPERATING DATA | | | | | ELECTRICAL DATA | | | CONNECTION SIZE | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | FLOW (GPM) | PRESSURE (FT) | EFFICIENCY | POWER (HP) | SPEED (RPM) | VOLTS | PHASE | HERTZ | INLET (IN) | OUTLET (IN) | |
| RP-1 | GRUNDFOS | UP10 SMART PUMP | NW WATER HEATER WALL | DOMESTIC POTABLE HOT WATER RECIRCULATING SYSTEM | INLINE | - | - | - | - | - | - | - | - | - | - | - |
| RP-2 | GRUNDFOS | UP10 SMART PUMP | SE WATER HEATER WALL | DOMESTIC POTABLE HOT WATER RECIRCULATING SYSTEM | INLINE | - | - | - | - | - | - | - | - | - | - | - |

1. PROVIDE ECM-CONTROLLED RECIRCULATION PUMP WITH INTEGRAL TEMPERATURE AND PRESSURE SENSORS AND LOGIC. UNIT SHALL BE FULLY ADJUSTABLE FOR VARYING FIELD CONDITIONS.
2. PROVIDE FULLY-PACKAGED, NSF-61 COMPLIANT, VFD OR ECM CONTROLLED, DOMESTIC WATER BOOSTER PUMP SKID WITH EACH PUMP SIZED FOR 50% OF THE TOTAL LOAD. OUTLET PRESSURE SHALL BE SET TO MAINTAIN 70PSIG.
3. PROVIDE OIL-SENSING ELEVATOR SUMP PUMP IN ELEVATOR SUMP PIT WITH AUDIBLE AND VISUAL ALARMS, REMOTE PANEL, AND LINKED TO BAS; MINIMUM FLOW SHALL BE 50GPM PER ELEVATOR CAR/CAB.

## THERMOSTATIC MIXING VALVE SCHEDULE

| TAG | BASIS OF DESIGN | | DESIGN FLOW (GPM) | FLOW RANGE (GPM) | MAX P.D. AT DESIGN FLOW (PSI) | HW SYSTEM TEMPERATURES | | CONNECTION SIZE | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | INLET (°F) | OUTLET (°F) | INLET (IN) | OUTLET (IN) | |
| TMV-1 LOCATION NW H.S. | LEONARD | LM (LAVS & SINKS) | - | - | - | - | - | - | - | 1,2 |
| TMV-2 LOCATION SE H.S. | LEONARD | LF (LAVS/SINKS/ SHOWERS) | - | - | - | - | - | - | - | 1,2 |

1. PROVIDE THERMOSTATIC MIXING VALVE ASSMEBLY ON-WALL AND T/P GAUGES ON INLETS AND OUTLET.
2. PROVIDE ASSE-1070 VALVE FOR ALL PUBLIC LAVATORIES AND SINKS. UNIT SHALL BE MOUNTED CONCEALED FROM VIEW BELOW FIXTURE.

## ELECTRIC WATER HEATER SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | CAPACITY (GALLONS) | RECOVERY RATE (GPH) | TEMPERATURE RISE (°F) | TEMPERATURE SETTING (°F) | ELECTRICAL DATA | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | | | INPUT RATE (kW) | VOLTAGE | PHASE | HERTZ | |
| EWH-1,2 | BRADFORD | RE35S6 | X2 IN NW MECH. ROOM | 50 GAL. EACH | - | 80 | 120 | 4500 DUAL ELEMENT/ NON-SIMULT. | 240/208 | SINGLE | 60 | 1,2 |

1. kW INPUT RATE FOR ELECTRIC WATER HEATERS BASED ON FULL LOAD SIMULTANEOUS OPERATION.
2. PROVIDE PARALLEL INSTALLATIONS WITH PRECISION CUT EQUAL LEG PIPING, REVERSE-RETURN MANIFOLD PIPING, OR MANUFACTURER'S MANIFOLD INSTALLATION KIT. REFER TO MANUFACTURER'S INSTALLATION REQUIREMENTS AND RECOMMENDATIONS.

## OIL FIRED WATER HEATER SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | CAPACITY (GALLONS) | RECOVERY RATE (GPH) | TEMPERATURE RISE (°F) | TEMPERATURE SETTING (°F) | ELECTRICAL DATA | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | | | INPUT RATE (kW) | VOLTAGE | PHASE | HERTZ | |
| WH-1 | BOCK | 72E | SE H.S. MAIN UTILITY ROOM | 67 | 212 @ 90 DEG. RISE | 80 | (EXISTING 120, SET TO 140) | 199,000 BTUH | | | | 1,2,3 |

1. PROVIDE 1-FOR-1 CARLIN PRIMARY & SECONDARY SMART IGNITOR OIL-HEATER & TANK-MOUNTED TEMPERATURE CONTROLLER/DIGITAL READOUT.
2. REPLACE EXISTING FUEL-OIL FILTER WITH NEW 1-FOR-1.
3. ADD PRESSURE/TEMPERATURE GAUGES WHERE INDICATED AS EXISTING SYSTEM IS DEFICIENT.

## INTERCEPTOR AND SEPARATOR SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | OPERATING DATA | | | ELECTRICAL DATA | | | CONNECTION SIZE | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | FLOW (GPM) | CAPACITY (GALLONS) | CONTAMINATE RETENTION VOLUME (GAL) | VOLTAGE | PHASE | HERTZ | INLET (IN) | OUTLET (IN) | |
| GT-1 | SCHIER | GB-2 | NW CULINARY LAB (INDOOR) | 35 | 20 GAL. LIQUID | 130 LBS. @ 35 GPM | - | - | - | 3" | 3" | 1,2,3 |

1. PROVIDE GREASE INTERCEPTOR UNIT WITH FOGS MONITORING ALARM SYSTEM WITH REMOTE LOCATED PANEL.
2. PROVIDE INTERCEPTOR WITH CONCRETE ANCHORING PAD, DEADMAN ANCHORS, OR MANUFACTURER RECOMMENDED ANCHORING METHOD AND ALL ASSOCIATED INSTALLATION ACCESSORIES.
3. PROVIDE INTERCEPTOR WITH PUMPED REMOTE DRAWOFF, VERIFY FINAL INSTALLATION DOES NOT EXCEED RISE AND RUN LIMITATIONS OF PUMPED REMOTE DRAWOFF SYSTEM.

## ACID NEUTRALIZATION TANK SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | INSTALLATION TYPE | TANK VOLUME (GAL) | TYPE | VOLUME (GAL) | VENT | INLET | OUTLET | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | | | | | | |
| LSK-1 | SCIENTIFIC PLASTICS | W121206-001 | NW/SE CHEM LAB STUDENT STATIONS | UNDERCOUNTER | 3 | CHEM-RESISTANT PP BOX | 3 | 1-1/2" | 2" | | 1,2 |
| LSK-2 | SCIENTIFIC PLASTICS | W32525-000 | NW/SE CHEM LAB INSTRUCTOR | UNDERCOUNTER | 55 | CHEM-RESISTANT PP DRUM | 55 | 1-1/2" | 2" | | 1,3 |

1. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR NEUTRALIZATION MEDIA QUANTITIES.
2. EACH STUDENT STATION SHALL BE PROVIDED WITH THE SPECIFIED OR APPROVED EQUAL DILLUTION BASIN LOCATED IN THE CASEWORK BELOW WITH READY-ACCESS.
3. EACH INSTRUCTOR STATION SHALL BE PROVIDED WITH THE SPECIFIED OR APPROVED EQUAL DILLUTION BASIN LOCATED IN THE CASEWORK BELOW WITH READY-ACCESS. THE INSTRUCTOR STATION DILLUTION BASINS SHALL ALSO BE EQUIPPED WITH A LEVEL MONITORING DEVICE AND ALARM/ANNUNCIATOR. SIGNET 9900-01 OR APPROVED EQUAL.

## BACKFLOW PREVENTER SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | SYSTEM | SIZE | DESIGN FLOW RATE (GPM) | PRESSURE DROP (PSI) | NOTES |
|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | | | |
| 14 | | | | | | | | |
| BFP-1 | AMES | - | NW MECH ROOM (VERTICAL) | BUILDING POTABLE DOMESTIC | 2" | - | - | 1 |
| BFP-2 | AMES | - | SE MECH ROOM | BUILDING POTABLE DOMESTIC | 2" | - | - | 1 |

1. REPLACE EXISTING WITH VERTICALLY CERTIFIED DOUBLE CHECK VALVE ASSEMBLY.

## NORTHWEST H.S. PLUMBING FIXTURE SCHEDULE

| TAG | FIXTURE | HEIGHT A.F.F. | BASIS OF DESIGN | PIPE SIZE | | | | | LEED USAGE DATA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | COLD WATER | TEPID WATER | HOT WATER | VENT | SOIL WASTE | | |
| | <varies> | <varies> | <varies> | <varies> | | | <varies> | <varies> | <varies> | |
| LSK-1 | STUDENT STATION INTEGRATED LAB SIK | ADA COMPLIANT | EPOXY RESIN SINK INTEGRATED WITH EPOXY RESIN COUNTERTOP | 1/2" | - | - | SEE CHEM BASIN | SEE CHEM BASIN | - | |
| LSK-2 | INSTRUCTOR STATION INTEGRATED LAB SINK | ADA COMPLIANT | EPOXY RESIN SINK INTEGRATED WITH EPOXY RESIN COUNTERTOP | 1/2" | - | 1/2" | SEE CHEM BASIN | SEE CHEM BASIN | - | |

## SOUTHEAST H.S. PLUMBING FIXTURE SCHEDULE

| TAG | FIXTURE | HEIGHT A.F.F. | BASIS OF DESIGN | PIPE SIZE | | | | | LEED USAGE DATA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | COLD WATER | TEPID WATER | HOT WATER | VENT | SOIL WASTE | | |
| | <varies> | <varies> | <varies> | <varies> | | | <varies> | <varies> | <varies> | |
| LSK-1 | STUDENT STATION INTEGRATED LAB SIK | ADA COMPLIANT | EPOXY RESIN SINK INTEGRATED WITH EPOXY RESIN COUNTERTOP | 1/2" | - | - | SEE CHEM BASIN | SEE CHEM BASIN | - | |
| LSK-2 | INSTRUCTOR STATION INTEGRATED LAB SINK | ADA COMPLIANT | EPOXY RESIN SINK INTEGRATED WITH EPOXY RESIN COUNTERTOP | 1/2" | - | 1/2" | SEE CHEM BASIN | SEE CHEM BASIN | - | |
| SK-1 | CLASSROOM HANDWASH SINK | ADA COMPLIANT | STAINLESS STEEL, DROP-IN, HANDWASH SINK WITH BREAK ROOM FAUCET & EEW | 1/2" | - | 1/2" | 1-1/2" | 2" | - | |

1. THIS ACCESSIBLE FIXTURE, ACCESSORIES, AND INSTALLATION SHALL CONFORM TO THE USBC AND ASAD ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. LOCATE FLUSH ACTUATORS ON WIDE SIDE OF STALLS OR APPROACH AREAS.
3. PROVIDE ASSE-1070 CERTIFIED MIXING VALVE IN STAINLESS STEEL WALL CABINET, ABOVE CEILING, OR BELOW FIXTURE ACCESSIBLE BUT CONCEALED FROM VIEW.
4. PROVIDE ASSE-1016 CERTIFIED MIXING VALVE.
5. PROVIDE ASSE-1071 CERTIFIED EMERGENCY MIXING VALVE IN STAINLESS STEEL WALL CABINET.
6. PROVIDE DISHWASHER HOOK-UP WHERE DISHWASHER IS PRESENT, CONNECT HW IN SINK BASE AND CONNECT SANITARY THRU AIR GAP FITTING OR HIGH LOOP HOSE DRAIN INTO DISHWASHER TAIL PIECE SINK DRAIN.

## TANK SCHEDULE

| TAG | BASIS OF DESIGN | | LOCATION | SYSTEM TYPE | TANK TYPE | OPERATING DATA | | | ASME CODE CONSTRUCTION (YES / NO) | CONNECTION SIZE | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANUFACTURER | MODEL | | | | CAPACITY (GAL) | ACCEPTANCE (GAL) | AIR PRE-CHARGE PRESSURE (PSI) | | INLET (IN) | OUTLET (IN) | |
| EX-1 | AMTROL | ST-5C | NW WATER HEATER WALL | THERMAL EXPANSION | INLINE DIAPHRAM | 2 | 0.9 | 150 PSIG | ASME (YES) | 3/4" | 3/4" | 1 |
| EX-2 | AMTROL | ST-12C | SE WATER HEATER FLOOR | THERMAL EXPANSION | INLINE DIAPHRAGM | 6.4 | 3.2 | 150 PSIG | ASME (YES) | 3/4" | 3/4" | 1 |

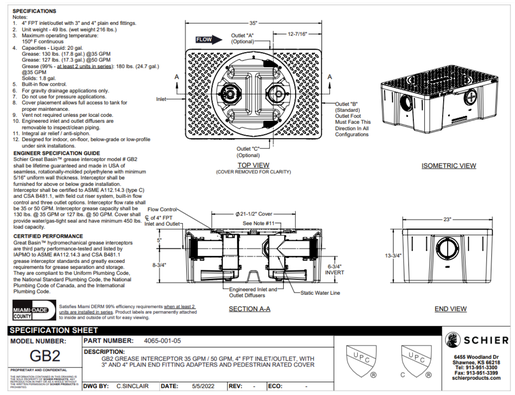
1. REFER TO MANUFACTURERS RECOMMENDATIONS FOR FINAL PIPING ARRANGEMENT. PROVIDE EQUAL LEG PIPING FOR INLETS AND OUTLETS OF MANIFOLDED STORAGE TANKS TO PROVIDE EVEN DISTRIBUTION AND DRAWOFF.

## INSULATION SCHEDULE

| SERVICE | LOCATION | TEMPERATURE | INSULATION | JACKETING | WEATHERPROOFING | MINIMUM INSULATION THICKNESS | | NOTES |
|---|---|---|---|---|---|---|---|---|
| | | | | | | PIPES SIZE (IN) | THICKNESS (IN) | |
| DOMESTIC COLD WATER | INDOORS | 40°F - 60°F | ELASTOMERIC | ASJ | NONE | 0.50-4.00 | 1.00 | |
| DOMESTIC HOT WATER AND HOT WATER RETURN | INDOORS | 100°F - 200°F | MOLDED FIBERGLASS | ASJ | NONE | 0.50-1.00 | 1.00 | |
| | | | | | | 1.25-1.50 | 1.50 | |
| | | | | | | 2.00-4.00 | 2.00 | |
| TEPID WATER AND TEPID WATER RETURN | INDOORS | 60°F - 90°F | MOLDED FIBERGLASS | ASJ | NONE | 0.50-1.00 | 1.00 | |
| | | | | | | 1.25-1.50 | 1.50 | |
| | | | | | | 2.00-4.00 | 2.00 | |
| STORM DRAINAGE | INDOORS | 40°F - 60°F | MOLDED FIBERGLASS | ASJ | NONENONE | 2.00-12.00 | 1.00 | 1 |
| EXTERIOR DOMESTIC COLD WATER | OUTDOORS | 40°F - 60°F | MOLDED FIBERGLASS | ASJ | ALUMINUM JACKET | 0.50-4.00 | 2.00 | 2 |
| HEAT EXCHANGER | INDOORS | 250°F | CALCIUM SILICATE | ALUMINUM JACKET | NONE | N/A | N/A | 3 |

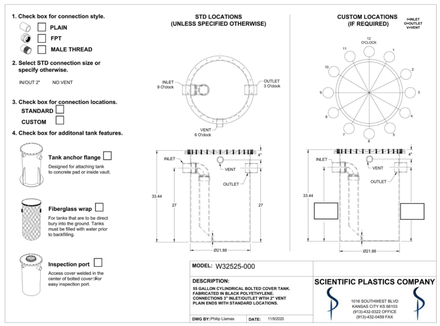
1. PROVIDE INSULATION FOR INDOOR HORIZONTAL STORM DRAINAGE PIPING INCLUDING DRAIN BODY AND OVERFLOW SECONDARY STORM PIPING.
2. PROVIDE OUTDOOR PIPING, EXPOSED TO FREEZE CONDITIONS, TO RECEIVE HEAT TRACING, INSULATION, AND ALUMINUM JACKETING.
3. REFER TO SPECIFICATIONS FOR FIELD APPLIED INSULATION.

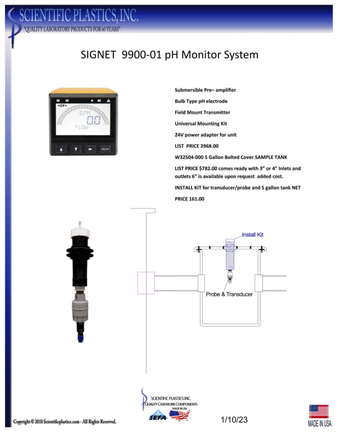
EMERGENCY EYEWASH AT CHEM LAB HAND SINKS

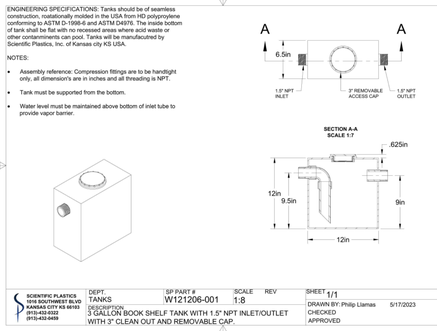

NORTHWEST H.S. CULINARY LAB INDOOR GREASE TRAP

INSTRUCTOR SINK-STATION DILLUTION BASIN




INSTRUCTOR SINK-STATION PH MONITOR




INSTRUCTOR SINK-STATION DILLUTION BASIN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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 043951 01/17/24 ENGINEER DAVID T WHEELEY

MOSELEY ARCHITECTS PROFESSIONAL CORPORATION C-3469 NORTH CAROLINA CHARLOTTE, NC

HALIFAX COUNTY SCHOOLS
16683 NC-125, HALIFAX, NC 27839
8492 NC-48, LITTLETON, NC 27580

PROJECT NO: 630516
DATE: JANUARY 17, 2024

| DATE | DESCRIPTION |
|---|---|
| REVISIONS | |
| 02/14/2024 | *AD-01 |

*AD-01

SCHEDULES

P6.1

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