LEON COUNTY SCHOOL BOARD SPECIFICATIONS

Oakridge Elementary School - Restroom Renovations

Tallahassee, Florida

BFBS
ARCHITECTS

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SECTION 064116 - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Plastic-laminate-clad architectural cabinets.
2. Cabinet hardware and accessories.
3. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-clad architectural cabinets that are not concealed within other construction.

B. Related Sections
1. 06 10 00 Rough Carpentry.
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1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at **Project site.**

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

1. Include plans, elevations, sections, and attachment details.

C. Samples: For each exposed product and for each color and texture specified.

1.4 INFORMATIONAL SUBMITTALS

A. Research reports.

B. Field quality control reports.

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

1.1 FIELD CONDITIONS

A. Environmental Limitations without Humidity Control: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.

B. Environmental Limitations with Humidity Control: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity between **25 and 55** percent during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

A. Quality Standard: Unless otherwise indicated, comply with the Architectural Woodwork Standards for grades of cabinets indicated for construction, finishes, installation, and other requirements.

B. Architectural Woodwork Standards Grade: **Custom**.

C. Type of Construction: **Frameless**.

D. Door and Drawer-Front Style: **Flush** overlay.

E. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by quality standard.

F. Laminate Cladding for Exposed Surfaces:

1. Horizontal Surfaces: **Grade Wilsonart Solid Surface on sink cabinets only. All others shall have Wilsonart Plastic Laminate Cladding.**
2. Vertical Surfaces: **Grade VGS**.
3. Edges: **Grade VGS**
4. Pattern Direction: **Vertically for doors and fixed panels, horizontally for drawer fronts**.
5. All products and colors to be chosen by Owner.

G. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.

1. Join subfronts, backs, and sides with **glued rabbeted joints supplemented by mechanical fasteners**.

H. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
1. Match Architect's sample. Refer to finish schedule on the drawings.

2.2 WOOD MATERIALS

A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.

1. Wood Moisture Content: **5 to 10** percent.
2. All base cabinets with sinks shall have ¾" plywood bottom and toe kick.
3. Provide backing for all cabinets. Refer to Rough Carpentry section

B. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated. Comply with LEED requirements for recycled content and composite wood products.
1. Medium-Density Fiberboard (MDF): ANSI A208.2, **Grade 130**.
2. Particleboard (Medium Density): ANSI A208.1, **Grade M-2**.
3. Softwood Plywood: DOC PS 1 **, ¾" medium-density overlay**.
4. Thermally Fused Laminate (TFL) Panels: Particleboard or MDF finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

2.3 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets

2.4 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: **Softwood or hardwood lumber**], kiln-dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

C. Use LEED Compliant adhesives, manufacturer's standard.

2.5 FABRICATION

A. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

B. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand

edges of cutouts to remove splinters and burrs.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

B. Architectural Woodwork Standards Grade: Install cabinets to comply with quality standard grade of item to be installed.

C. Anchor cabinets to blocking built in. Secure with wafer-head cabinet installation screws.

D. Install cabinets level, plumb, and true in line to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm) using concealed shims.

1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
3. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches (400 mm) o.c. with **No. 10 wafer-head screws sized for not less than 1-1/2-inch (38-mm) penetration into wood framing, blocking, or hanging strips,No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish, toggle bolts through metal backing or metal framing behind wall finish.**

END OF SECTION 064116

SECTION 123661.16 - SOLID SURFACING COUNTERTOPS

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. Solid surface material countertops.
2. Solid surface material backsplashes.
3. Solid surface material end splashes.
4. Solid surface adhesives and sealants.

B. Related Requirements:

1.3 ACTION SUBMITTALS

A. Product Data: For countertop materials including manufacturer's technical data sheets, and published written instructions.

B. Sustainable Design Submittals:

1. Product Data: For adhesives and sealants, indicating VOC content.
2. Laboratory Test Reports: For adhesives and sealants, indicating compliance with requirements for low-emitting materials.

C. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, terminations, and cutouts.

1. Show locations and details of joints.
2. Show direction of directional pattern, if any.

D. Samples for Initial Selection: For each type of material exposed to view. See finish schedule on the drawings.

E. Samples for Verification: For the following products:

1. Countertop material, 6 inches (150 mm) square.
2. Countertop, with front edge **and backsplash**, 8 by 10 inches (200 by 250 mm), of construction and in configuration specified.

F. Certificates: For the following certifications:

1. United States Food and Drug Administration (FDA) compliance for food contact materials described in 21 CFR 174 to 21 CFR 190.
2. New York City material equipment acceptance, MEA 181-96-M.
3. ANSI/NSF 51 "food zone" and FDA "direct-food contact" compliant.
4. UL GREENGUARD® Gold Certified product for low-chemical emissions.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer and fabricator.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: ISO 9001 quality management system certification for manufacturing facility(ies).

B. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in- service performance.

1. Manufacturer-certified fabricator.

C. Installer Qualifications: Manufacturer certified fabricator of countertops.

D. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

1. Build mockup of typical countertop as **indicated by Architect**.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 FIELD CONDITIONS

A. Field Measurements: Verify dimensions of countertops by field measurements **after base cabinets are installed but** before countertop fabrication is complete.

1.8 COORDINATION

A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

1.9 WARRANTY

A. Manufacturer's Warranty: Manufacturer and installer agree to repair or replace sheet material not free from defects in materials, fabrication, or workmanship within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOLID SURFACE COUNTERTOP AND WALL MATERIALS

A. Composition Solid-Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Wilsonart LLC; or a comparable product by one of the following:

a. Affinity Surfaces; a brand of Domain Industries, Inc.
b. Avonite Surfaces.
c. E. I. du Pont de Nemours and Company.
d. Formica Corporation.
e. LG Chemical, Ltd.
f. Meganite Inc.

2. Thickness: As indicated by product specified on the drawings..
3. Panel Weight: As indicated by product specified on the drawings..
4. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

a. Flame-Spread Index: **25** or less.
b. Smoke-Developed Index: **450** or less.

5. Colors and Patterns: **As specified on the drawings.**

2.2 COUNTERTOP FABRICATION

A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."

1. Grade: **Premium**

B. Countertops: 1/2-inch (12.7-mm) thick, solid surface material with bull nose front edge built up with same material.

C. Backsplashes: 1/2-inch (12.7-mm) thick, solid surface material.

D. Fabricate tops with shop-applied edges and backsplashes unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

E. Joints: Fabricate countertops without joints.

F. Cutouts and Holes:

1. Undercounter Plumbing Fixtures: Make cutouts for fixtures **in shop** using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.

   a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop.

2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.
4. Counter-Mounted Cooktops: Prepare countertops in shop for field cutting openings for cooktops. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.

2.3 INSTALLATION MATERIALS

A. Adhesive: Product recommended by solid surface material manufacturer.

1. Adhesives shall have a VOC content of **70**g/L or less.
2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

B. Sealant for Countertops: Comply with applicable requirements in Section 079200 "Joint Sealants."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install countertops level to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m), 1/4 inch (6 mm) maximum. Do not exceed 1/64-inch (0.4-mm) difference between planes of adjacent units.

B. Fasten countertops by adhering with 100-percent silicone material in dab format (not bead format) to base units into underside of countertop at 18 to 24 inches (457 to 610 mm) o.c. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

C. Fasten countertops by adhering with 100-percent silicone material in dab format (not bead format) to base units into underside of countertop at 18 to 24 inches (457 to 610 mm) o.c. Shim as needed to align subtops in a level plane.

D. Secure countertops to subtops or wood-web frame with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

E. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.

F. Apply sealant to gaps at walls; comply with Section 079200 "Joint Sealants."

END OF SECTION 123661.16

SECTION 08 71 00 – DOOR HARDWARE PART 1 - GENERAL

4.1 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware for:

a. Swinging doors.

4.2 REFERENCES

A. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Key Systems and Nomenclature

B. ANSI - American National Standards Institute

1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

4.3 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article.

B. Action Submittals:

1. Product Data: Product data including manufacturers’ technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Samples for Verification: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.

a. Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

3. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door

and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:

a. Door Index; include door number, heading number, and Architects hardware set number.

b. Opening Lock Function Spreadsheet: List locking device and function for each opening.

c. Type, style, function, size, and finish of each hardware item.

d. Name and manufacturer of each item.

e. Fastenings and other pertinent information.

f. Location of each hardware set cross-referenced to indications on Drawings.

g. Explanation of all abbreviations, symbols, and codes contained in schedule.

h. Mounting locations for hardware.

i. Door and frame sizes and materials.

j. Name and phone number for local manufacturer's representative for each product.

4. Key Schedule:

a. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.

b. Use ANSI/BHMA A156.28 “Recommended Practices for Keying Systems” as guideline for nomenclature, definitions, and approach for selecting optimal keying system.

c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.

d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.

e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.

1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

f. Prepare key schedule by or under supervision of supplier, detailing Owner’s final keying instructions for locks.

5. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory prepared for door hardware installation.

C. Informational Submittals:

1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.

2. Product Certificates for electrified door hardware, signed by manufacturer:

a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.

3. Certificates of Compliance:

    a. Certificates of compliance for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.

    b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in “QUALITY ASSURANCE” article.

4. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by qualified testing agency, for door hardware on doors located in accessible routes.

5. Florida Building Code; Windload: Submit certified independent lab test or NOA report on each type of exterior opening. All exterior opening submittals shall include door number, door and frame elevations and all finish hardware as tested as an assembly. These reports are to be forwarded to the building department.

6. Warranty: Warranty specified in this Section.

D. Closeout Submittals:

1. Operations and Maintenance Data : Provide in accordance with Division 01 and include:

    a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.

    b. Catalog pages for each product.

    c. Name, address, and phone number of local representative for each manufacturer.

    d. Parts list for each product.

    e. Final approved hardware schedule, edited to reflect conditions as-installed.

    f. Final keying schedule

    g. Copies of floor plans with keying nomenclature

    h. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

4.4 QUALITY ASSURANCE

A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified.

1. Where specific manufacturer’s product is named and accompanied by “No Substitute,” including make or model number or other designation, provide product specified. (Note: Certain products have been selected for their unique characteristics and particular project suitability.)

    a. Where no additional products or manufacturers are listed in product category, requirements for “No Substitute” govern product selection.

2. Where products indicate “acceptable manufacturers”, provide product from specified manufacturers, subject to compliance with specified requirements and “Single Source Responsibility” requirements stated.

B. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.

1. Warehousing Facilities: In Project's vicinity.

2. Scheduling Responsibility: Preparation of door hardware and keying schedules.

3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

    a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.

C. Installer Qualifications: Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.

D. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:

1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).

2. Can provide installation and technical data to Architect and other related subcontractors.

3. Can inspect and verify components are in working order upon completion of installation.

4. Capable of producing wiring diagrams.

5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.

E. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

F. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.

G. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.

1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.

H. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release latch. Locks do not require use of key, tool, or special knowledge for operation.

I. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in “REFERENCES” article, herein.

1. Provide operating devices that do not require tight grasping, pinching, or twisting of wrist and that operate with force of not more than 5 lbf (22.2 N).

2. Maximum opening-force requirements:

a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.

3. Bevel raised thresholds with slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.

4. Adjust door closer sweep periods so that, from open position of 70 degrees, door will take at least 3 seconds to move to 3 inches (75 mm) from latch, measured to leading edge of door.

J. Keying Conference: Conduct conference at Project site

1. Attendees: Owner, Contractor, Architect, Installer, and Supplier’s Architectural Hardware Consultant.

2. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.

b. Preliminary key system schematic diagram.

c. Requirements for key control system.

d. Requirements for access control.

e. Address for delivery of keys.

K. Pre-installation Conference: Conduct conference at Project site.

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

2. Inspect and discuss preparatory work performed by other trades.

L. Coordination Conferences:

1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.

a. Attendees: Door hardware supplier, door hardware installer, Contractor.

b. After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.

4.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

1. Deliver each article of hardware in manufacturer’s original packaging.

C. Project Conditions:

1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

2. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

D. Protection and Damage:

1. Promptly replace products damaged during shipping.

2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.

3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

E. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

F. Deliver keys to Owner by registered mail or overnight package service.

4.6 COORDINATION

A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

B. Direct shipments not permitted, unless approved by Contractor.

4.7 WARRANTY

A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Years from date of Substantial Completion, for durations indicated.

a. Closers:
1) Mechanical: 10 years.
b. Exit Devices:
1) Mechanical: 3 years.
c. Locksets:
1) Mechanical: 10 years.

d. Key Blanks: Lifetime

2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

4.8 MAINTENANCE

A. Extra Materials:

1. Furnish 100 ea. Schlage Everest D key blanks

B. Maintenance Tools:

1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and particular project suitability to insure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: “No Substitute.”

1. Where “No Substitute” is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as ”Scheduled Manufacturer ” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article.

C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

D. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.

E. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

A. Fasteners

1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.

2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.

3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are

required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.

4. Install hardware with fasteners provided by hardware manufacturer.

2.3 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Ives 5BB series
2. Acceptable Manufacturers and Products: Hager BB series, Stanley FBB Series

B. Requirements:

1. Provide five-knuckle ball bearing hinges conforming to ANSI/BHMA A156.1.

2. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:

   a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
   b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high

3. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.

4. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

   a. Out-Swinging Exterior Doors: Non-removable pins

5. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors.

2.4 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer: Ives

2. Acceptable Manufacturers: Hager, Rockwood

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.5 COORDINATORS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Hager, Rockwood

B. Requirements:

1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.

2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers and surface vertical rod exit device strikes. Factory-prep coordinators for vertical rod devices if required.

2.6 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage ND Series
2. Acceptable Manufacturers and Products: No Substitute

B. Requirements:

1. Provide Schlage ND Series cylindrical locks conforming to the following standards and requirements:

   a. ANSI/BHMA A156.2 Series 4000, Grade 1.

   b. UL 10C for 4’-0” x 10’-0” 3-hour fire door.

   c. Florida Building Code (ASTM E330, E1886, E1996) and Miami Dade (TAS 201, 202, 203) requirements for hurricanes.

2. Cylinders: Refer to “KEYING” article.

3. Provide cylindrical locksets exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security, and durability in the categories below:

   a. Abusive Locked Lever Torque Test – minimum 3,100 inch-pounds without gaining access

   b. Offset lever pull – minimum 1,600 foot pounds without gaining access

   c. Vertical lever impact – minimum 100 impacts without gaining access

   d. Cycle life - tested to minimum 16 million cycles per ANSI/BHMA A156.2 Cycle Test with no visible lever sag or use of performance aids such as set screws or spacers.

4. Provide solid steel anti-rotation through bolts and posts to control excessive rotation of lever.

5. Provide lockset that allows lock function to be changed to over twenty other common functions by swapping easily accessible parts.

6. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw capable of UL listing of 3 hours on a 4’ x 10’ opening. Provide proper latch throw for UL listing at pairs.

7. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.

8. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.

9. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.

10. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.

    a. Lever Design: Schlage Rhodes.

2.7 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 99 series.

2. No substitutions will be accepted.

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1, and UL listed for Panic Exit or Fire Exit Hardware. Cylinders: Refer to “KEYING” article, herein.

2. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.

3. Touchpad: Extend minimum of one half of door width. Match exit device finish, stainless steel for US26, US26D, US28, US32, and US32D finishes; and for all other finishes, provide compatible finish to exit device. No plastic inserts are allowed in touchpads.

4. Provide exit devices with dead-latching feature for security and for future addition of alarm kits and/or other electrified requirements.

5. Provide flush end caps for exit devices.

6. Provide exit devices with manufacturer’s approved strikes.

7. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.

8. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.

9. Provide hex dogging at non-fire-rated exit devices.

10. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.

11. Where lever handles are specified as outside trim for exit devices, provide heavy-duty lever trims with forged or cast escutcheon plates. Provide vandal-resistant levers that will travel to 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.

    a. Lever Style: Match lever style of locksets.

2.8 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer: Schlage
2. Acceptable Manufacturers: No substitute

B. Requirements:

1. Provide permanent cylinders/cores to match Owner's existing Schlage Everest key system, compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article.

2.9 KEYING

A. Provide cylinders/cores keyed into Owner's existing Schlage Everest factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

1. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
    a. Master Keying system as directed by the Owner.
2. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements shall be cause for replacement of cylinders/cores involved at no additional cost to Owner.
3. Provide keys with the following features:
    a. Everest D keyway
    b. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
4. Identification:
    a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Blind code marks shall not include actual key cuts.
    b. Identification stamping provisions must be approved by the Architect and Owner.
    c. Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE".
    d. Failure to comply with stamping requirements shall be cause for replacement of keys involved at no additional cost to Owner.
    e. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
5. Quantity: Furnish in the following quantities.
    a. Change (Day) Keys: 3 per cylinder/core.
    b. Master Keys: 6.

2.10 KEY CONTROL SYSTEM

A. Manufacturers:

1. Scheduled Manufacturer: Telkee
2. Acceptable Manufacturers: HPC, Lund

B. Requirements:

1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.

    a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.

    b. Provide hinged-panel type cabinet for wall mounting.

2.11 ELECTRIC STRIKES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: HES
2. Acceptable Manufacturers and Products: No Substitute.

B. Requirements:

1. Provide electric strikes designed for use with type of locks shown at each opening.
2. Provide electric strikes UL Listed as burglary-resistant.
3. Where required, provide electric strikes UL Listed for fire doors and frames.
4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.12 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4040XP series.

2. No substitutions will be accepted.

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers.

2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cylinder, and full complement bearings at shaft.

3. Cylinder Body: 1-1/2 inch (38 mm) diameter with 3/4 inch (19 mm) diameter double heat-treated pinion journal.

4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.

5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.

6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.

7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.

8. Pressure Relief Valve (PRV) Technology: Not permitted.

9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).

10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.13 DOOR TRIM

A. Manufacturers:
   1. Scheduled Manufacturer: Ives
   2. Acceptable Manufacturers: Hager, Rockwood

B. Requirements:

   1. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.

   2. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

2.14 PROTECTION PLATES

A. Manufacturers:

   1. Scheduled Manufacturer: Ives

   2. Acceptable Manufacturers: Hager, Rockwood

B. Requirements:

   1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.

   2. Sizes of plates:
      a. Kick Plates: 12 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.15 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Hager, Rockwood

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.

2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.

3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

2.16 THRESHOLDS, SEALS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer: Zero International
2. Acceptable Manufacturers: National Guard, Pemko

B. Requirements:

1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.

2. Size of thresholds:

   a. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width

3. Provide seals and astragals only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.17 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Hager, Rockwood

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.18 FINISHES

A. General: Refer to the Hardware Groups.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Where on-site modification of doors and frames is required:

1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.

2. Field modify and prepare existing door and frame for new hardware being installed.

3. When modifications are exposed to view, use concealed fasteners, when possible.

4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:

a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."

c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.

2. Custom Steel Doors and Frames: HMMA 831.

B. Install each hardware item in compliance with manufacturer’s instructions and recommendations, using only fasteners provided by manufacturer.

C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

H. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

I. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Closers shall not be visible in corridors, lobbies and other public spaces unless approved by Architect.

J. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

K. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

L. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

M. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

N. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

3.4 FIELD QUALITY CONTROL

A. Architectural Hardware Consultant: Engage qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.

1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately six months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.6 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.7 DEMONSTRATION

A. Provide training for Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes.

END OF SECTION 08 71 00

SECTION 096519

RESILIENT TILE FLOORING
(Luxury vinyl)

LEON COUNTY SCHOOLS

PART 1 GENERAL

1.01 THIS SECTION INCLUDES

A. Flooring and accessories as shown on the drawings and schedules and as indicated by the requirements of this section.

1.02 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract (including General and Supplementary Conditions and Division 1 sections) apply to the work of this section.

1.03 RELATED SECTIONS

A. Other Division 9 sections for floor finishes related to this section but not the work of this section.

B. Division 3 Concrete; not the work of this section.

C. Division 6 Wood and Plastics; not the work of this section.

D. Division 7 Thermal and Moisture Protection; not the work of this section.

1.04 QUALITY ASSURANCE AND REGULATORY REQUIREMENTS

A. Select an installer who is competent in the installation of Commercial luxury vinyl tile and plank flooring.

B. Local Carpet Vendor shall have no less than 5 years of Governmental commercial contractual agreement experience.

C. If required, provide resilient flooring and accessories supplied by one manufacturer, including leveling and patching compounds, and adhesives.

D. If required, provide flooring material to meet the following fire test performance criteria as tested by a recognized independent testing laboratory:

a. ASTM E 648 Critical Radiant Flux of 0.45 watts per sq. cm. or greater, Class I.

b. ASTM E 662 (Smoke Generation) Maximum Specific Optical Density of 450 or less.

1.05 SUBMITTALS

A. Submit shop drawings, seaming plan, coving details, and manufacturer's technical data, installation and maintenance instructions for flooring and accessories.

B. Submit the manufacturer's standard samples showing the required colors for flooring and applicable accessories.

C. If required, submit the manufacturer's certification that the flooring has been tested and complies with the required fire tests.

1.06 ENVIRONMENTAL CONDITIONS

A. Deliver materials in good condition to the jobsite in the manufacturer's original unopened containers that bear the name and brand of the manufacturer, project identification, and shipping and handling instructions.

B. Store materials in a clean, dry, enclosed space off the ground, and protected from the weather and from extremes of heat and cold. Protect adhesives from freezing. Store flooring, adhesives and accessories in the spaces where they will be installed for at least 48 hours before beginning installation.

C. Maintain a minimum temperature in the spaces to receive the flooring and accessories of 65°F (18°C) and a maximum temperature of 85°F (29°C) for at least 48 hours before, during, and for not less than 48 hours after installation. Thereafter, maintain a minimum temperature of 55°F (13°C) in areas where work is completed. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances.

D. Install flooring and accessories after the other finishing operations, including painting, have been completed. Close spaces to traffic during the installation of the flooring. Do not install flooring over concrete slabs until they are sufficiently dry to achieve a bond with the adhesive, in accordance with the manufacturer's recommended bond and moisture tests.

PART 2 PRODUCTS

2.01 RESILIENT FLOORING MATERIALS

A. Provide luxury vinyl tile with the following characteristics:

B. Total thickness of 3.0 mm, consisting of no less than 72% recycled content, and is Floorscore™ Certified for less environmental impact.

C. Wear Layer: Consists of 20-mil wear layer with Enhanced Urethane

D. Wear Layer Thickness: Must provide a wear layer thickness of 0.020 in (0.5mm).

E. Warranty: Must provide a 20 Year, Job Specific, Commercial Wear Warranty

F. Flooring shall meet composition, size, thickness, squareness, flexibility, residual indentation, resistance to chemicals, resistance to heat and resistance to light requirements of ASTM F 1700, "Standard Specification for Luxury vinyl Tile," Type A(smooth), Type B(embossed) surface.

2.02 WALL BASE MATERIALS

A. Wall Base finish must conform to ASTM F 1861- 08 Standard Specification for Resilient Wall Base

2.03 ADHESIVES

A. Provide Manufactures recommended adhesive under the flooring.

2.04 ACCESSORIES

A. For sealing joints between the top of wall base or integral cove cap and irregular wall surfaces such as masonry, provide plastic filler applied according to the manufacturer's recommendations.

B. Provide transition/reducing strips tapered to meet abutting materials.

C. Provide threshold of thickness and width as shown on the drawings.

D. Provide resilient edge strips of width shown on the drawings, of equal gauge to the flooring, homogeneous vinyl or rubber composition, tapered or bullnose edge, with color to match or contrast with the flooring, or as selected by the Architect from standard colors available.

E. Provide metal edge strips of width shown on the drawings and of required thickness to protect exposed edges of the flooring. Provide units of maximum available length to minimize the number of joints. Use butt-type metal edge strips for concealed anchorage, or overlap-type metal edge strips for exposed anchorage. Unless otherwise shown, provide strips made of extruded aluminum with a mill finish.

PART 3 EXECUTION

3.01 INSPECTION

A. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.

B. Inspect subfloors prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might

prevent adhesive bond. Visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew.

C. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.

D. Failure to call attention to defects or imperfections will be construed as acceptance and approval of the subfloor. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

3.02 PREPARATION

A. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects.

B. Remove paint, varnish, oils, release agents, sealers, and waxes. Remove residual adhesives as recommended by the flooring manufacturer. Remove curing and hardening compounds not compatible with the adhesives used, as indicated by a bond test or by the compound manufacturer's recommendations for flooring. Avoid organic solvents.

C. Perform subfloor moisture testing in accordance with

1. ASTM F 2170: Standard Test Method for Determining Relative Humidity in Concrete Slabs Using in situ Probes. Relative humidity shall not exceed 87%.

2. ASTM F 1869: Standard Test Method for Measuring Moisture Vapor Emission Rate (MVER) of Concrete Subfloor Using Anhydrous Calcium Chloride (CaCl may not exceed 8lbs).

3. On installations where both the Percent Relative Humidity and the Moisture Vapor Emission Rate tests are conducted, results for both tests shall comply with the allowable limits listed above. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained.

D. Perform pH tests (pH may not exceed 10lbs and read no lower than 7lbs) on concrete floors regardless of their age or grade level. All test results shall be documented and retained.

E. Vacuum or broom-clean surfaces to be covered immediately before the application of flooring. Make subfloor free from dust, dirt, grease, and all foreign materials.

3.03 INSTALLATION OF FLOORING

A. Install flooring in strict accordance with manufacturer's guidelines.

- RH may not exceed 87%
- pH may not exceed 10lbs and have a minimum reading of 7lbs
- CaCl may not exceed 8lbs.

B. Install flooring wall to wall before the installation of floor-set cabinets, casework, furniture, equipment, movable partitions, etc. Extend flooring into toe spaces, door recesses, closets, and similar openings as shown on the drawings.

C. If required, install flooring on pan-type floor access covers. Maintain continuity of color and pattern within pieces of flooring installed on these covers. Adhere flooring to the subfloor around covers and to covers.

D. Scribe, cut, and fit to permanent fixtures, columns, walls, partitions, pipes, outlets, and built-in furniture and cabinets.

E. Install flooring with adhesives, tools, and procedures in strict accordance with the manufacturer's written instructions. Observe the recommended adhesive trowel notching, open times, and working times.

3.04 INSTALLATION OF ACCESSORIES

A. Apply top set wall base to walls, columns, casework, and other permanent fixtures in areas where top-set base is required. Install base in lengths as long as practical, with inside corners fabricated from base materials that are mitered or coped. Tightly bond base to vertical substrate with continuous contact at horizontal and vertical surfaces.

B. Fill voids with plastic filler along the top edge of the resilient wall base or integral cove cap on masonry surfaces or other similar irregular substrates.

C. Place resilient edge strips tightly butted to flooring, and secure with adhesive recommended by the edge strip manufacturer. Install edge strips at edges of flooring that would otherwise be exposed.

3.05 CLEANING AND PROTECTION

A. Perform initial maintenance according to Manufacturer's maintenance guidelines.

B. Protect installed flooring as recommended by the flooring manufacturer against damage from rolling loads, other trades, or the placement of fixtures and furnishings.

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes surface preparation and the application of paint systems on the following interior substrates:

1. Concrete masonry units (CMUs).
2. Steel and iron.
3, Gypsum board.
4. Sealed Concrete Floors

1 .2 DEFINITIONS

A. MPI Gloss Level I : Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.

B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.

E. MP' Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1 .3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include Printout of current 'MPI Approved Products List' for each product category specified, with the proposed product highlighted.

B. Samples: For each type of paint system and in each color and gloss of topcoat.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: The Sherwin-Williams Company (S-m

B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Interior Painting Schedule for the paint category indicated.

2.2 PAINT, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

C. Colors: LCS provided colors

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

1. Concrete: 12 percent.
2. Fiber-Cement Board: 12 percent.
3. Masonry (Clay and CMOS): 12 percent.
4. Wood: 15 percent,
5. Gypsum Board: 12 percent.
6. Plaster: 12 percent.

C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

D. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 INTERIOR PAINTING SCHEDULE

General: Provide the following paint systems for the various substrates, as indicated.

CMU Substrates:

1. Basis of Design: Sherwin Williams, Eggshell, Enamel Finish: Two coats over filled surface with total dry film thickness not less than 3.5 mils, excluding filler coat. (except where designated otherwise)
   a. Primer: S-W Heavy-Duty Block Filler B42W46
   b. 1st Coat: S-W A-100 Latex Satin
   c. 2nd Coat: S-W A-100 Latex Satin

2. Epoxy Paint (Toilet Rooms)
   Basis of Design: Sherwin Williams, Gloss — High Performance Finish
   a. Primer: S-W Pro Industrial Heavy-Duty Block Filler; Loxon Block Surfacer, A24W200
   b. 1st Coat: S-W Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300 Series c.
   c. 2nd Coat: S-W Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300 Series

Ferrous Metal Substrates: (Interior & exterior doors frames)

1. Oil base paint (no latex enamel allowed)
   d. Primer: S-W Kem Kromik Metal Primer
   e. 1st Coat: S-W Industrial Enamel B-54 Series
   f. 2nd Coat: S-W Industrial Enamel B-54 Series

Gypsum Subtrates:

1. Basis of Design: Sherwin Williams, Latex Satin Finish
   a. Primer: S-W Prep rite Pro block primer/sealer
   b. 1st coat: A-100 Latex Satin
   c. 2nd coat: A-100 Latex Satin

2. Basis of Design: Sherwin Williams, Pro Industrial High-Performance Epoxy (Toilet Room Ceilings)
   a. Primer: S-W Prep rite Pro block primer/sealer
   b. 1st coat: Pro Industrial High-Performance Epoxy
   c. 2nd coat Pro Industrial High-Performance Epoxy

Sealed Concrete Floors:

1. One coat W.R. Meadow Yocamp 25 acrylic sealer or equal non-staining type. Install per manufacturer's printed instructions.

END OF SECTION 099123

SECTION 123661.16 - SOLID SURFACING COUNTERTOPS

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. Solid surface material countertops.
2. Solid surface material backsplashes.
3. Solid surface material end splashes.
4. Solid surface adhesives and sealants.

B. Related Requirements:

1.3 ACTION SUBMITTALS

A. Product Data: For countertop materials including manufacturer's technical data sheets, and published written instructions.

B. Sustainable Design Submittals:

1. Product Data: For adhesives and sealants, indicating VOC content.
2. Laboratory Test Reports: For adhesives and sealants, indicating compliance with requirements for low-emitting materials.

C. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, terminations, and cutouts.

1. Show locations and details of joints.
2. Show direction of directional pattern, if any.

D. Samples for Initial Selection: For each type of material exposed to view. See finish schedule on the drawings.

E. Samples for Verification: For the following products:

1. Countertop material, 6 inches (150 mm) square.
2. Countertop, with front edge **and backsplash**, 8 by 10 inches (200 by 250 mm), of construction and in configuration specified.

F. Certificates: For the following certifications:

1. United States Food and Drug Administration (FDA) compliance for food contact materials described in 21 CFR 174 to 21 CFR 190.
2. New York City material equipment acceptance, MEA 181-96-M.
3. ANSI/NSF 51 "food zone" and FDA "direct-food contact" compliant.
4. UL GREENGUARD® Gold Certified product for low-chemical emissions.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer and fabricator.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: ISO 9001 quality management system certification for manufacturing facility(ies).

B. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in- service performance.

1. Manufacturer-certified fabricator.

C. Installer Qualifications: Manufacturer certified fabricator of countertops.

D. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

1. Build mockup of typical countertop as **indicated by Architect**.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 FIELD CONDITIONS

A. Field Measurements: Verify dimensions of countertops by field measurements **after base cabinets are installed but** before countertop fabrication is complete.

1.8 COORDINATION

A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

1.9 WARRANTY

A. Manufacturer's Warranty: Manufacturer and installer agree to repair or replace sheet material not free from defects in materials, fabrication, or workmanship within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOLID SURFACE COUNTERTOP AND WALL MATERIALS

A. Composition Solid-Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1. Owner must agree upon Solid-Surface Product.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Wilsonart LLC; or a comparable product by one of the following:

a. Affinity Surfaces; a brand of Domain Industries, Inc.
b. Avonite Surfaces.
c. E. I. du Pont de Nemours and Company.
d. Formica Corporation.
e. LG Chemical, Ltd.
f. Meganite Inc.

2. Thickness: As indicated by product specified on the drawings..
3. Panel Weight: As indicated by product specified on the drawings..
4. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

a. Flame-Spread Index: **25** or less.
b. Smoke-Developed Index: **450** or less.

5. Colors and Patterns: **As specified on the drawings.**

2.2 COUNTERTOP FABRICATION

A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."

1. Grade: **Premium**

B. Countertops: 1/2-inch (12.7-mm) thick, solid surface material with front edge built up with same material.

C. Backsplashes: **3/4-inch (19-mm)** thick, solid surface material.

D. Fabricate tops with shop-applied edges **and backsplashes** unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

E. Joints: Fabricate countertops without joints.

F. Cutouts and Holes:

1. Undercounter Plumbing Fixtures: Make cutouts for fixtures **in shop** using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.

    a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop.

2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.
4. Counter-Mounted Cooktops: Prepare countertops in shop for field cutting openings for cooktops. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.

2.3 INSTALLATION MATERIALS

A. Adhesive: Product recommended by solid surface material manufacturer.

1. Adhesives shall have a VOC content of **70**g/L or less.
2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

B. Sealant for Countertops: Comply with applicable requirements in Section 079200 "Joint Sealants."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install countertops level to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m), 1/4 inch (6 mm) maximum. Do not exceed 1/64-inch (0.4-mm) difference between planes of adjacent units.

B. Fasten countertops by adhering with 100-percent silicone material in dab format (not bead format) to base units into underside of countertop at 18 to 24 inches (457 to 610 mm) o.c. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

C. Fasten countertops by adhering with 100-percent silicone material in dab format (not bead format) to base units into underside of countertop at 18 to 24 inches (457 to 610 mm) o.c. Shim as needed to align subtops in a level plane.

D. Secure countertops to subtops or wood-web frame with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

E. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.

F. Apply sealant to gaps at walls; comply with Section 079200 "Joint Sealants."

END OF SECTION 123661.16

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

EXHIBIT A

TALLAHASSEE OFFICE
1246 Timberlane Road
Tallahassee, FL 32312
Tel: (850) 576-4652
www.soearth.com
FL Certificate of Authorization #3737

LEON COUNTY SCHOOL BOARD
Division of Facilities & Construction
3420 W. Tharpe St., Suite 100
Tallahassee, Florida 32303

April 24, 2024
Project No.: T24-001
FL Licensed Asbestos
No.: ZA-0000092

Attention: Ms. Alison Garber

Subject: Asbestos Bulk Sample Results of 12" vinyl tile & black tile mastic at Oak Ridge Elementary School in Building 01 Rms 101-118 Restrooms Foyers (101B-118B)

Dear Ms. Garber:

As requested, Southern Earth Sciences, Inc. (SESI) performed asbestos bulk sampling of 12" (non-ACM) tile and black tile mastic (ACM) on the Restroom Foyer Floors (101B-118B). The bulk sample was submitted to Eurofins CEI for Bulk Polarized Light Microscopy (PLM) Analysis at a certified laboratory. The tile & mastic was abated from all the classrooms about 10-12 years ago, but the Restroom Foyers were not. Each of the 9 identified foyers contained approximately 28sf of 12" non-ACM tile & black tile mastic on the slab (ACM).

SESI recommends that this material be abated by a Florida Licensed Abatement Contractor following standard abatement industry guidelines/practices. Air monitoring & clearance air testing should be performed by Phase Contrast Microscopy (PCM) Analysis. Air sampling inside the work areas and adjacent rooms & PCM air clearance testing for the identified ACM should be <0.01f/cc by PCM (acceptance criteria in schools). A Final Air Monitoring Report will be provided by SESI after the abatement is completed. SESI can provide a proposal for the air monitoring if desired.

I have also attached a copy of a Generic Tile/Mastic Abatement Spec that I wrote for Carl Green in 2009 so that we didn't need abatement specs written for small work such as this. Please feel free to give me a call at 850-576-4652 should you have any questions or need additional information.

We appreciate the opportunity to be of service to you on this project should require additional information, please advise.

Sincerely,

SOUTHERN EARTH SCIENCES, INC.

Roy L. Russell
Asbestos Dept. Manager – LEP #60/CIEC
EPA TSCA LBP Inspector No.: LBP-I-5950-2

Mark E. Wilson, P.E.
Florida State Licensed Asbestos Consultant
SESI Asbestos Business No.: ZA-0000092
Florida Licensed Asbestos Consultant No.: AX85
04-24-2024

SES SOUTHERN EARTH SCIENCES

eurofins | CEI

April 24, 2024

Southern Earth Sciences, Inc.
3642 Peddie Drive
Tallahassee, FL 32303

CLIENT PROJECT: Oak Ridge ES Bldg 1, T24-001
CEI LAB CODE: B248014

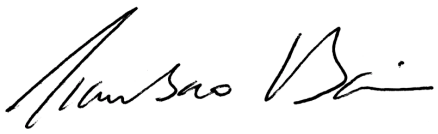
Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on April 24, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

eurofins | CEI

ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

Southern Earth Sciences, Inc.

CLIENT PROJECT: Oak Ridge ES Bldg 1, T24-001

LAB CODE: B248014

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 04/24/24

TOTAL SAMPLES ANALYZED: 1

SAMPLES >1% ASBESTOS: 1

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Oak Ridge ES Bldg 1, T24-001 **LAB CODE: B248014**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
001		B248014.01A	Off-white	Floor Tile	None Detected
		B248014.01B	Black,Tan	Mastic	Chrysotile 2%

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Southern Earth Sciences, Inc.
3642 Peddie Drive
Tallahassee, FL 32303

Lab Code: B248014
Date Received: 04-24-24
Date Analyzed: 04-24-24
Date Reported: 04-24-24

Project: Oak Ridge ES Bldg 1, T24-001

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
001 B248014.01A	Floor Tile	Homogeneous Off-white Non-fibrous Tightly Bound			100%	Vinyl	None Detected
B248014.01B	Mastic	Heterogeneous Black,Tan Non-fibrous Bound	<1%	Cellulose	50% 48%	Mastic Tar	**2% Chrysotile**

Unable to separate mastics for analysis.

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LEGEND:
Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Patrick Elliott
Patrick Elliott

APPROVED BY:
Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

(1)

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
CEI Lab Code:	B248014
CEI Lab I.D. Range:	

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: ROY L. RUSSELL
Company: SOUTHERN EARTH SCIENCES	Email / Tel: rrussell@soearth.com 850-519-1565
Address: 2467 CENTERVILLE, TALLAHASSEE, FL 32308	Project Name: Oak Ridge E.S Bldg 1
	Project ID#: T24-001
Email: rrussell@soearth.com	PO #:
Tel: 850-576-4652 Fax: 850-576-4710	STATE SAMPLES COLLECTED IN: FL

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☒	☐	☐	☐	☐	☐
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PLM BULK	CARB 435		☐	☐	☐	☐	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITTATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS / SPECIAL INSTRUCTIONS:

☑ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
	4/23/24	SN	4/24 9:30

Samples will be disposed of 30 days after analysis

7760 7462 3209

Version: CCOC.01.18.1/2.LD

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: SOUTHERN EARTH SCIENCES	Job Contact: ROY L. RUSSELL - TALLAHASSEE OFFICE
Project Name: Oak Ridge E.S Bldg 1	rrussell@soearth.com ljackson@soearth.com
Project ID #: T24-001	Tel: 850-519-1565

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
001	Rm 102 RR Foyer Way	12X12 FT/Rm	PLM ☑	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
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			PLM ☐	TEM ☐

EXHIBIT B

Tallahassee, FL

870-3 Blountstown Highway
Tallahassee, FL 32304

Tel.: (850) 576-4652
Fax: (850) 576-4710

SOUTHERN EARTH SCIENCES, inc.
Geotechnical & Environmental Consultants

LCSB-MAINTENANCE DEPARTMENT
3420 W. Tharpe Street, Suite 200
Tallahassee, FL 32303

March 16,2009
SESI Job No.: T09-042
FL Licensed Asbestos Consulting Firm No.: ZA-0000092

Subject: General Point Specifications for Asbestos Abatement of Tile/Mastic in Leon County School Buildings

Attention: Mr. Carl Green

Southern Earth Sciences, Inc., is the Florida Licensed Asbestos Consultant for developing project specifications and performing monitoring/clearance testing for removal of vinyl tiles (ACM/non-ACM) and black tile mastic from the floors of various school buildings.

The windows, doorways and ceiling penetrations of work areas shall be single lined with a layer of at least 6-mil poly for abatement of tile/mastic. A wet decon shall be provided by the abatement contractor for personnel and material decontamination from the building abatement areas. All EPA (40CFR Part 61), OSHA (29CFR 1926.1101), state and local requirements shall be followed by the abatement contractor. Asbestos abatement industry standard practices shall be followed. The steps below should be considered the minimum allowed for performance of this work. Negative pressure half-mask respirators as a minimum shall be required for this work. The tile shall be removed wet and intact as much as possible. The tile mastic shall be removed using low-odor mastic dissolver.

All abatement activities shall be performed under wet conditions. A negative pressure of at least –0.02" H_20 shall be established and maintained inside the containment areas. The abatement of tile/mastic shall be performed under containment. HVAC systems shall be secured and vents covered inside the containments during the abatement with at least two layers of 6-mil poly sheeting.

The abatement contractor shall be responsible for ensuring that his personnel have proper security background and clearance from the Leon County School Board. The contractor shall ensure that his supervisors/workers wear proper attire (shirt & pants) outside the containments and do not harass students or teachers (verbally or by visual means) or smoke on school property. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work force any unfit person or anyone not skilled in the work assigned to him nor anyone who has not received notice of the hazards of asbestos removal and training in use of respirators, safety procedures, equipment, clothing, and work procedures.

The abatement contractor shall provide copies of the company and contractor licenses and certifications to perform the abatement work. The contractor shall provide supervisor and worker training, fit tests and physicals to SESI at least 5 working days prior to the start of work for review and approval.

Coordinate with the owner (Leon County School Board) for access to water and electricity as needed. Parking and placement of the dumpster and work vehicles shall also be coordinated with the owner and the general contractor, including removal of equipment/facilities/connections and notification of all trades/employees of work. Refer to the sequence of work and requirements below for this job task (some of the tasks may be performed concurrently at the contractor's discretion):

Tile/Tile Mastic Abatement in Building 1 Areas:

1) Setup a wet decon with a shower facility for containment access into the regulated area(s) (it can also be used for waste-out if needed) consisting of double layers of 6-mil polyethylene sheeting. (**NOTE: The decon shall provide access to the area(s) to be abated, multiple showers may be required to facilitate work in the school buildings.)**

2) All wastewater shall be filtered prior to return to the sanitary drains.

3) Ventilate the containment to move contaminated air away from the workers using an adequate number of NAMs provided with HEPA filtration to maintain the containment at -0.02"H_2O with respect to the outside.

4) Baseboards shall be removed by the abatement contractor (if required by the owner) and disposed of as construction debris if black mastic is not present on the baseboards.

5) All containment penetrations shall be isolated by critical barriers; consisting of single layers of 6-mil poly (including doors, operable windows, ceiling penetrations, and vents). Splash guards consisting of 6-mil poly shall extend at least 2' up the walls and shall be attached in a manner (masking tape or other method) that does not damage the wall coverings where mastic dissolver is to be used.

6) Ensure that the HVAC systems are shutdown and locked-out. HVAC registers and returns shall be isolated using two layers of 6-mil poly.

7) The abatement contractor is responsible for controlling access to the regulated areas. All personnel entering the containment are to sign release forms.

8) All workers/supervisors shall wear appropriate personal protective equipment inside the containment including, as a minimum, half-mask negative pressure respirators and disposable clothing.

9) Appropriate signage shall be employed to prevent inadvertent exposure of non-abatement workers. All employees of the school board, general contractor, architect/design firm and other trades shall be notified of the scope of abatement activities.

10) All tile shall be removed using mechanical means (minimize breakage) and handled wet. Materials and equipment that will not be removed from the area prior to abatement shall be cleaned and covered by 6-mil poly. Only HEPA equipped vacuums are to be used when vacuuming up debris.

11) All asbestos waste shall be double bagged (single bags for non-ACM tiles with mastic) in appropriately marked and labeled containers. The waste bags shall be appropriately labeled and removed from the containment and placed in a locked dumpster/box truck. The dumpster/box truck shall be appropriately marked while being used to store asbestos waste on site.

12) Tile mastic removal shall be performed using low-odor mastic dissolver and under wet conditions. Proper safety precautions for worker protection shall be taken according to the manufacturer's MSDS for the product used. **(NOTE: The Contractor Supervisor shall ensure that mastic/dissolver does not enter floor penetrations or go under the walls.)**

13) Black tile mastic shall be removed from the base of the walls without damaging the walls as much as practicable, if present behind the baseboards.

14) The work area shall be inspected by the contractor's supervisor for adequacy of work and cleanliness prior to contacting SESI for clearance sampling.

15) The building can be encapsulated using appropriate techniques following satisfactory inspection results by SESI.

16) SESI will perform aggressive clearance testing of the containment(s) following a satisfactory inspection by Transmission Electron Microscopy (TEM) where VAT is present. Satisfactory results shall be =70 s/mm^2 by TEM analysis for the work areas. Areas where non-ACM tile and mastic are present shall be cleared by Phase Contrast Microscopy (PCM). Satisfactory results shall be =0.01 f/cc by PCM analysis for the work areas. The contractor will be responsible for cleaning and additional costs for testing upon failure.

17) The containment and regulated areas can be deactivated following satisfactory results from the clearance tests.

We appreciate the opportunity to be of service to you on this project. Should you require additional information, please advise.

Sincerely,

SOUTHERN EARTH SCIENCES, INC.

Roy L. Russell
Project Manager

Michael K. Varner, P.E.
Asbestos Consultant
State of Florida
Reg. No. 0023
03-16-09