

THE SCHOOL DISTRICT OF PHILADELPHIA
SCHOOL REFORM COMMISSION
Office of Capital Programs
440 North Broad Street, Third Floor - Suite 371
Philadelphia, PA 19130-4015

TELEPHONE: (215) 400-4730

Addendum No. 1

Subject: VARE-WASHINGTON ELEMENTARY SCHOOL
CLASSROOM MODERNIZATION
SDP CONTRACT NOS. B-028 C OF 2020/21

Location: VARE-WASHINGTON ELEMENTARY SCHOOL
1198 S. 5TH STREET,
PHILADELPHIA, PA 19147

This Addendum, ***dated 19th of February, 2021***, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

1. Bids are due on Thursday 2/25/2021.
2. The successful bidder is required to attend a de-scoping meeting the following day after bids are due. The time for this meeting will be communicated on the bid opening day.
3. Deadline for questions has passed; no more new questions will be received.
4. Revised Drawing Sheets Issued
 - a. Drawing A201: Revised scope of new ACT ceiling.
5. Revised Drawings by Narrative:
 - a. Drawing G100:
 - i. Add Room 106 for full plaster repair and paint at walls and ceiling.
 - b. Drawing AD100:
 - i. Add 35 LF removal of wood wall base on teaching wall.
 - c. Drawing A100:
 - i. Add 35 LF new wood wall base to match existing profile.
 - ii. Add 3 LF new wood wall base at radiator on window wall.
6. Revised Specifications Issued:
 - a. See revised Specification section: 12 3553 Wood Casework.

7. Drawing Sketches Issued

- a. (none)

8. Reports Issued

- a. (none)

9. Questions and Clarifications

A. **Question from Lorenzon Brothers Company:**

- a. Is Contractor responsible to Furnish & install the IPB? Drawing A100 indicates it is by the Contractor but drawing A 300 indicates it is by others. Please clarify.

- i. **Response:** Contractor is responsible for furnishing and installing IPB.

END OF ADDENDUM NO. 1 NARRATIVE.
REFERENCED SPECIFICATION, DRAWINGS, AND SKETCHES FOLLOW.

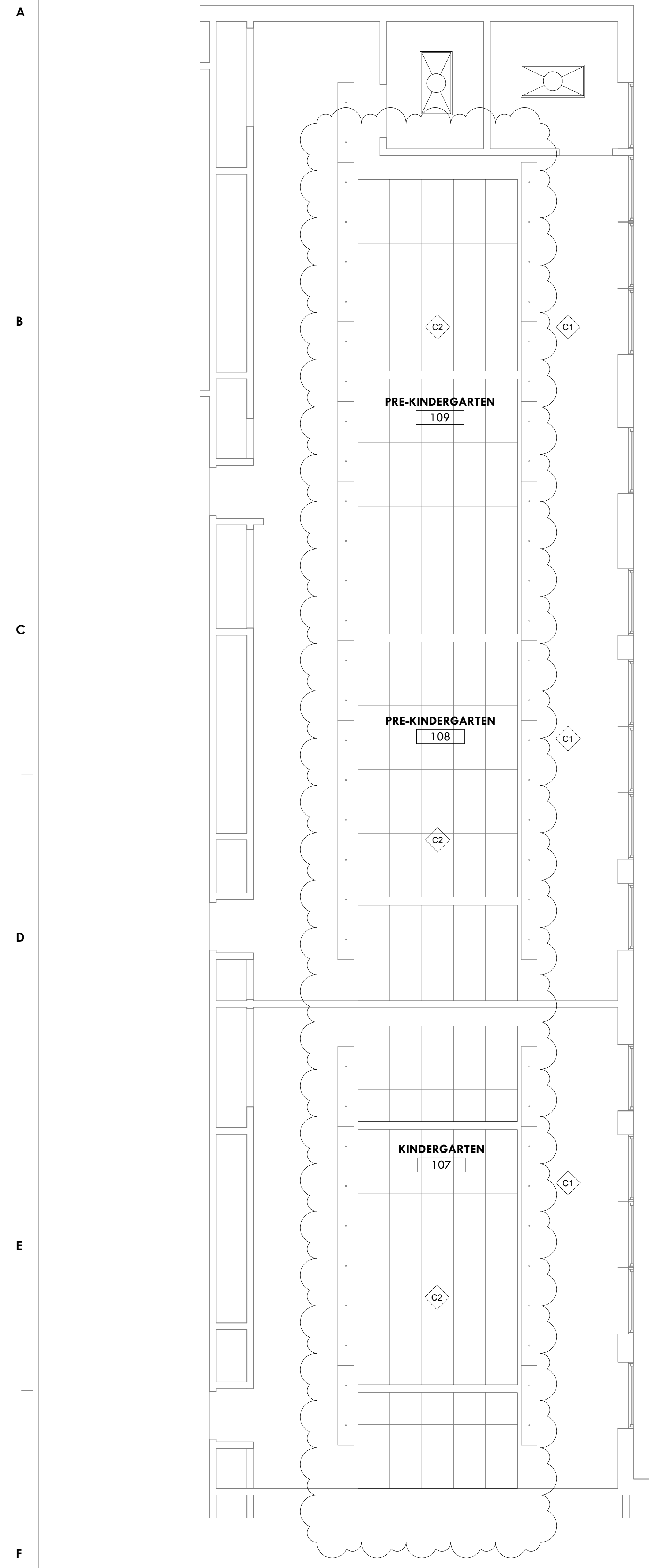
SEAL:

NAME (LICENSED PROFESSIONAL) DATE
 STATE AND LICENSE NO. XXXX/20XX

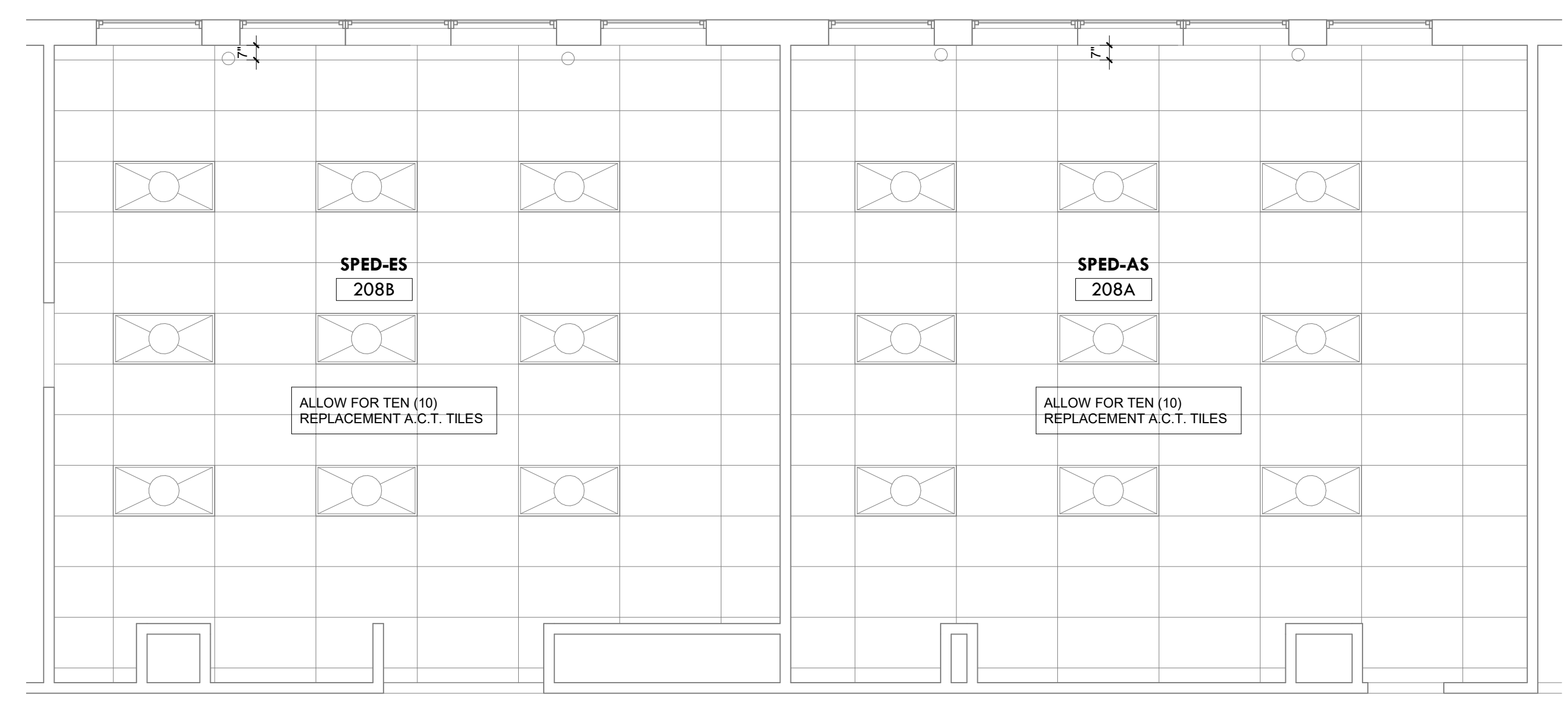
THE SHEWARD PARTNERSHIP, LLC
 www.shepardpartnership.com
 P.O. Box 215751-9301 2300 Chestnut Street
 Philadelphia, PA 19103

PES
 PRINCETON ENGINEERING SERVICES, PC
 101 Morgan Lane - Suite 205, Plainsboro, NJ 08536
 t: 609.452.9700 www.princetonengineering.com

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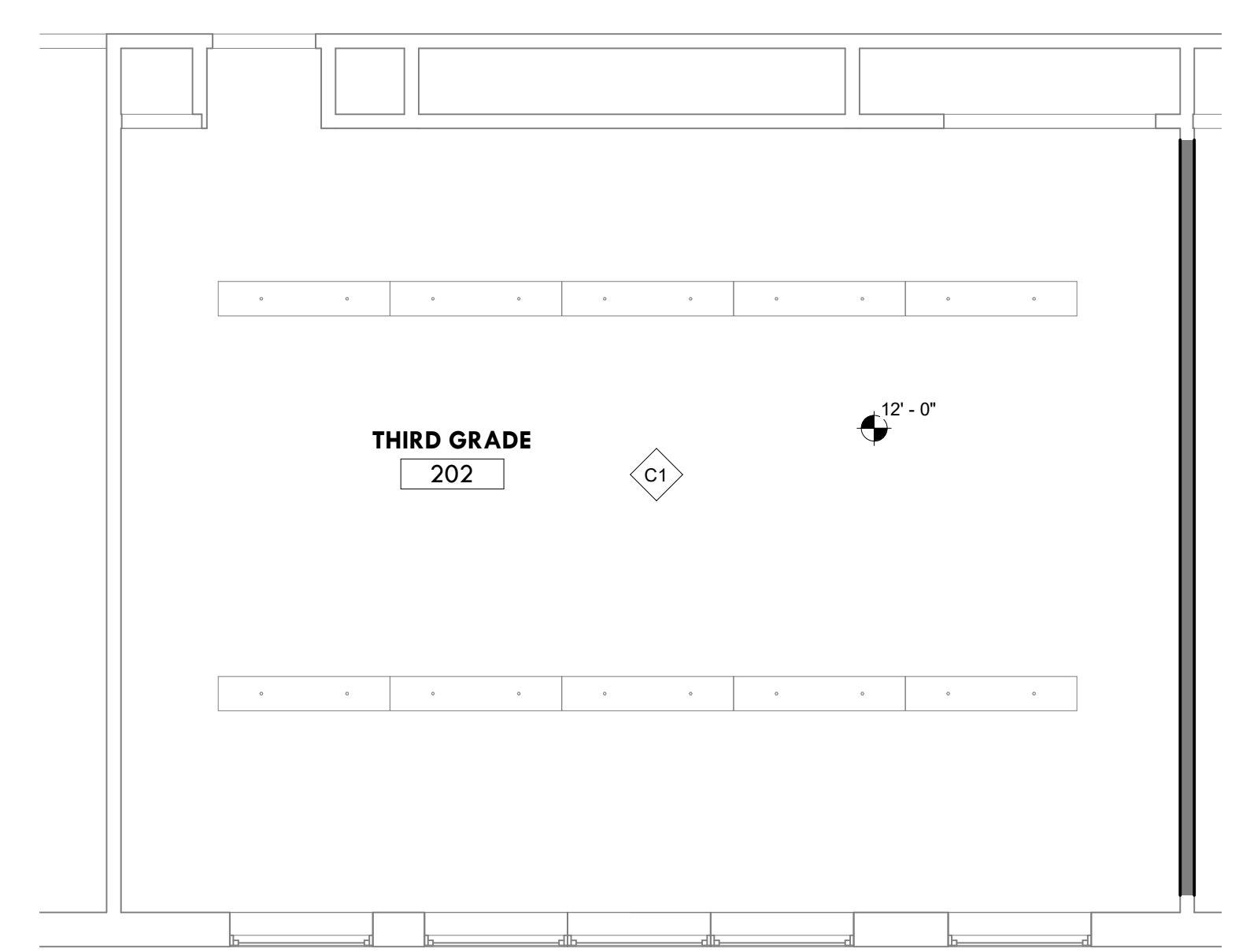


2 FIRST FLOOR RCP - NEW WORK 107, 108, 109
 SCALE: 1/4" = 1'-0"



3 SECOND FLOOR RCP - NEW WORK 208A, 208B
 SCALE: 1/4" = 1'-0"

NOTE: ACP AND LIGHTING IN 208A AND 208B ARE EXISTING.



1 SECOND FLOOR RCP - NEW WORK 202
 SCALE: 1/4" = 1'-0"

RCP GENERAL NOTES

1. PAINT ALL CEILINGS WHERE EXPOSED, INCLUDING ALL BEAMS, PIPES, AND DUCTS, TO BE PAINTED PER FINISH SCHEDULE.
2. INCLUDE PLASTER REPAIR PER GENERAL NOTES ON G100.

- C1 REPAIR PLASTER CEILING AND REPAINT.
- C2 NEW 2' X 4' ACT CEILING WITH 4" FASCIA EDGING. CEILING HEIGHT TO ALIGN WITH BOTTOM OF EXISTING PENDANT LIGHTING.

RCP LEGEND

- CEILING FINISHES**
- ACP-1 24" X 48" ACOUSTICAL CEILING PANELS SUSPENDED GRID SCHOOL ZONE FINE FISSURED

BID DRAWINGS:
 JANUARY 25, 2021

10		
9		
8		
7		
6		
5		
4		
3		
2	2/19/21 ADDENDUM 1	
1	1/25/21 BID DRAWINGS	
NO.	DATE	REVISION

SCHOOL & LOCATION
VARE-WASHINGTON ELEMENTARY SCHOOL
 1198 S. 5TH ST., PHILADELPHIA, PA 19147

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
ENLARGED REFLECTED CEILING PLANS

DRAWING SCALE AS INDICATED	
LOCATION NO. XXXX	FILE NO. XXX
DRAWN BY ECN	CHECKED BY GJC
GC: 8-028 OF 2020 / 21	

DRAWING NO.
A201
 SHEET 9 OF 22

SECTION 123553 WOOD CASEWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes supplying wood casework; countertops; casework hardware and service fittings and outlets.
- B. General Contractor shall install all sinks, faucets, strainers, tailpieces, traps, bubblers, gas cocks and valves and trim furnished by the casework supplier; Plumbing Contractor shall provide all labor to interconnect these items and connect these items to building systems.
- C. Electrical Contractor shall install electrical equipment (variable voltage panels, etc.) furnished by the casework supplier as specified. Electrical Contractor shall provide all labor to interconnect these items with the building systems. Electrical boxes, plates and wiring devices shall be provided by the electrical contractor. The casework contractor will provide the appropriate cutouts as noted on the approved shop drawings.
- D. Furnish and place appliances, which are explicitly included in the casework, contract where noted on architectural drawings.
- E. The general contractor and electrical Contractors shall extend building utilities to and connect appliances.
- F. Work shall be conducted in accordance with General Conditions, Supplementary Conditions, Division 1 and the requirements of this Section.
- G. Related Sections:
 - 1. Section 07900 - Joint Sealers.
 - 2. Section 09650 - Resilient Flooring: Base material.
 - 3.

1.02 REFERENCES

- A. American National Standards Institute (ANSI).
- B. Architectural Woodwork Institute (AWI): Architectural Woodwork Quality Standards Illustrated, latest edition.
- C. Composite Panel Association Buyer's & Specifier's Guide

1.03 DESIGN REQUIREMENTS

- A. Manufacturers shall be members of AWI, have established quality control criteria.
- B. Casework shall meet or exceed load tests as outlined in ANSI A161.1.
- C. Manufacturers shall comply, per architect's specification, with special requirements related to the Americans with Disabilities Act, 28 CFR Part 36, ADA Standards for Accessible Design.
- D. Items shall suit space conditions and where equipment is intended to occupy fixed locations, the physical conditions, roughing-in, etc., of the building are to control the absolute sizes and arrangements.
- E. Project Standard:
 - 1. Stock numbers of items of equipment, as indicated on Schedules, have been selected from one manufacturer's catalog for design purposes only. Wood casework manufacturer to provide casework to match the designs indicated in the drawings.
 - 2. Items of equipment by approved manufacturers (other than the Project Standard) need not be identical to the items indicated, however, they must satisfy the same requirements, provide the same facilities (doors, drawers, etc.) and fulfill the same functions as the specified items.
 - 3. Where items of equipment by approved manufacturers (other than Project Standard) are not of the same lengths as the items indicated, adjust equipment layouts as follows:
 - a. Where items of equipment are against the wall and confined by walls at both ends.
 - 1) Add a filler panel, and/or
 - 2) Increase the length of one or more units, and/or
 - 3) Add an additional unit of casework.
 - b. Where items of equipment are freestanding or are not confined by walls at both ends, adjust as above, except that overall length need only be approximate.
 - 4. Materials used by all manufacturers must meet the requirements of these specifications; it is understood that the manufacturers vary in joinery; these specifications describe the construction offered by the first-named manufacturer.
 - 5. It is intended that wood dowels shall secure cabinet body components and glue, but the use of concealed interlocking mechanical fasteners as approved by AWI 1600B-S- 1600B-S-4.A especially designed for use with particleboard shall be acceptable.
 - 6. Where items of equipment by approved manufacturers (other than the Project Standard) necessitate changes in mechanical or electrical services, said changes shall be the Contractor's responsibility and shall be coordinated and accomplished at no additional cost to the Owner.

1.04 SUBMITTALS

- A. Section 01600 - Product Requirements: Submittal requirements.

B. Shop Drawings:

1. Indicate casework locations, large-scale plans, elevations, cross sections, rough in and anchor placement dimensions, tolerances and clearances required.
2. Include utility rough-in dimensions.

C. Product Data:

1. Submit component dimensions, configurations, construction details, joint details, and attachments, utility and service requirements and locations.
2. Include associated components, including grommets, sink, sink fittings, appliances, fume hoods and other items as indicated on drawings.
3. Include manufacturer's literature.

D. Samples

1. Wood samples
2. Finish samples - custom for each school to match architects sample.
3. Edge banding
4. Hinges
5. Pulls
6. Louvers
7. Grommets

E. Sample Unit:

1. When requested by the Architect, submit full-size cabinet, as herein specified.
2. Submitted cabinets may be used in the Project.

F. Coordination Submittals:

1. Copy same submittals to other trades and Contractors who have connecting or adjacent Work for coordination review and for locating their Work connected to or adjacent to the equipment specified herein.

G. Provide test results per ANSI A161.1.

1.05 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum ten years experience.

B. Mockup (per architect's request):

1. Section 01400 - Quality Requirements: Mockup requirements.
2. Construct full size mockup including base and upper cabinet, complete with drawers, door and adjustable shelf.
3. Locate where directed by Architect.
4. Incorporate accepted mockup as part of Work.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Provide warranty for manufactured product.
- B. Accept casework on site; inspect on arrival for damage.
- C. Store and handle casework in manner to prevent damage and deterioration.
- D. Provide packaging such as cardboard or other containers, separators, banding, spreaders and paper wrappings to protect metal items.
- E. Store casework in a protected dry area, provided by the owner, away from direct sunlight, with temperature 70 degrees F (+/- 10) and relative humidity of 25–50%. Casework shall be stored elevated above moisture contact. Storage area must be isolated from outside weather conditions. Casework shall be installed only in areas where temperature and humidity are maintained within the above-stated range. Storage and installations in conditions other than those stated above will void all product warranties.
- F. All cabinets to be complete with hardware attached (or provided loose where not practical to ship attached) with all necessary scribes, fillers and molding; all items to be marked on outside of packaging for identification.
- G. Protect exposed finish surfaces by suitable means.
- H. Coordinate size of access and route to place of installation.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate casework installation with location and installation of service utilities.
- B. Sequence installation to accommodate required utility connections.

1.08 WARRANTY

- A. The manufacturer shall guarantee the casework against defects in materials and workmanship for a period of one year from date of acceptance.
- B. Warranty shall cover the repair or replacement, at the manufacturer's discretion of defective material.
- C. Non-manufactured components and accessories, such as faucets, fittings and fume hoods, shall be covered by the specific manufacturer's warranty.

PART 2 PRODUCTS

2.01 Manufacturers

- A. Basis of Design: Wood Metal Industries, 100 East Sherman Street, Selinsgrove, PA

17870, (570) 374-1176.

- B. Approved Manufacturer: American Millwork & Cabinetry
<https://www.amcmillwork.com/portfolio/millwork/>
- C. The specifications outline a quality standard necessary for required performance. Only products, which meet or exceed these standards, shall be considered acceptable.
- D. Acceptance of a bid for the required materials does not indicate product acceptance. All manufacturers must meet minimum construction requirements, must submit necessary materials and documentation for approved substitution and must revise their construction as necessary to meet the standards set forth herein.

2.02 Materials

- A. Wood and plywood grains, hues and matching will vary according to species, seasonal harvesting, manufacturing process and geographic origin. Visible surfaces of installed products shall be in conformance with industry-accepted standards.
- B. Maple shall be considered the standard wood species.
- C. Lumber - All lumber used for cabinet and case exteriors and exposed interiors shall be of selected northern grown hardwood, sound and free from checks and harmful case hardening. Lumber for interior construction shall be unselected as to grain and color. Lumber shall be properly air-dried, scientifically kiln dried in manufacturer's own controlled kilns, and then tempered to optimum moisture content (6-8%) prior to fabrication. All lumber on exposed surfaces shall be of the highest grade hardwood selected for grain and color
- D. Plywood (for exposed surfaces)
 - 1. Maple plywood faces shall be plain sliced grade A and shall meet the definition set forth in ANSI/HPVA HP-1-2004.
- E. Plywood (for unexposed surfaces)
 - 1. Plywood for unexposed surfaces shall have sound hardwood veneer face and may have color streaks and variations. Appearance shall be consistent with grade 2.

2.03 Hardware

- A. Hinges (options)
 - 1. Standard hinges for wall cabinets, base cabinets and tall cabinet doors shall be of the heavy-duty, wrap around, institutional type with five knuckles, non-removable pin and rounded ends. Hinges for overlay door construction shall be 2- $\frac{3}{4}$ " high by .095" thick and hinges for lipped radius construction shall be 2- $\frac{1}{2}$ " high by .072 thick. Hinge swing shall be 270 degrees. Hinges shall be finished in

colors selected from the manufacturer's standard colors.

2. Hinge screws shall be concealed when door is closed.
3. Doors less than 40- $\frac{1}{4}$ " high shall have 2 hinges and those 40- $\frac{1}{4}$ " high and over shall have three hinges.
4. The number of hinges shall vary according to the door height as follows: 10- $\frac{1}{2}$ " – 34- $\frac{1}{2}$ " door height: 2 hinges, over 34- $\frac{1}{2}$ " – 52- $\frac{1}{2}$ " door height: 3 hinges, over 52- $\frac{1}{2}$ " – 70- $\frac{1}{2}$ ": 4 hinges, over 70- $\frac{1}{2}$ ": 5 hinges.

B. Pulls

1. Standard pulls shall be satin aluminum bent wire style with 4 inch centers.
2. Sliding doors shall have a brushed steel recessed pull.
3. Optional three-point latching handles shall be available in dull-chrome or black finish. Three-point locking handles, when provided, shall be installed in the field to prevent shipping damage to casework.

C. Drawer Slides

1. Standards slides shall be single extension, bottom-mounted, epoxy powder-coated with positive in stop, out-stop and out keeper, lift-out disconnect, stay-closed design. Slides shall have captive nylon rollers both front and rear, 100 pound load rating and manufacturer's lifetime warranty
2. File and paper storage drawers shall have full extension, 3-part, progressive opening slide, with 100 pound load rating, zinc-coated or epoxy-coated at manufacturer's option.

D. Catches

1. Catches shall be double-action, spring tension, nylon roller catch.
2. On all tall cases, catches shall be heavy-duty nylon roller type.

E. Adjustable Shelf supports

1. Shelf supports shall be twin-pin design with anti-tip up shelf restraints for both $\frac{3}{4}$ " and 1" thick shelves, and provide slot to mechanically fasten shelf to clip. Load rating shall be minimum 300 pounds per shelf support.
2. Provide single-pin, "L" bracket metal shelf support shall be available with vinyl coating.
3. Surface-mounted, steel shelving standards with adjustable shelf support clips shall be available.

F. Locks

1. Locks shall be of a removable core design with 5-disk tumbler. Cabinets to be keyed alike per room, each room keyed differently and master-keyed, unless otherwise noted on drawings.
2. Two keys shall be provided per lock.
3. A maximum of six master keys shall be provided to the owner.

2.04 Miscellaneous Components

- A. Louvers and grills shall be provided as specified on the drawings. Manufacturer's standard grills shall be installed on both sides of door openings to provide a uniform appearance. Punched metal louvers with exposed sharp edges shall not be permitted.
- B. Tote trays shall be tan colored, high-impact, polystyrene with aluminum cardholders.
- C. Grommets with covers shall be provided where shown on drawings.
- D. Base molding is to be provided and installed by the general contractor

2.05 Construction

- A. General Construction
 - 1. This specification is based on an industry-standard maple cabinet construction.
 - 2. Top frames, tops, bottoms, intermediate rails, fixed partitions and fixed shelves where applicable to be glued, doweled and screwed to cabinet sides. Cabinets shall be clamped under pressure to insure joint integrity and unit squareness.
- B. Counter Tops
 - 1. Simulated Stone Countertops, refer to specification section 123661.

2.06 FABRICATION

- A. Base Cabinets:
 - 1. Sides shall be $\frac{3}{4}$ " thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. When adjustable shelves are required, sides to be bored with 5-mm holes on 32-mm centers to accept shelf support clips.
 - 2. Top assembly shall consist of a horizontal frame with pinned mortise and tenon joints and be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed. The front rail shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple with side rails $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep and a $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep back rail.
 - 3. Intermediate rails shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple and be secured to cabinet sides with 8-mm hardwood dowels on 32-mm centers, glued and screwed.
 - 4. Security panels, if specified, shall consist of (1) a horizontal frame with mortise and tenon joints and a $\frac{1}{4}$ " thick panel. Front rail shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple with side rails $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep and a $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep back rail or (2) [to be used at factory discretion] a $\frac{3}{4}$ " thick 7-ply hardwood plywood panel with hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. Both the frame and solid panel to be secured to cabinet sides with multiple 8-mm hardwood dowels glued and screwed.
 - 5. Bottoms shall be $\frac{3}{4}$ " thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. Bottom shall be secured to cabinet sides with multiple 8-mm hardwood dowels,

glued and screwed.

6. Backs shall be 1/4" thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
7. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to both sides and top or bottom.
8. Toe space shall be 4" high x 3-1/4" deep with plywood Toe board 3/4" thick x 4" high, secured between cabinet sides with 8-mm hardwood dowels and attached to bottom panel with hot melt adhesive.
9. Provide integral toe kick for all base and tall cabinets.

B. Wall Cabinets:

1. Sides shall be 3/4" thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge and .020 maple veneers applied to the top and bottom edge. When adjustable shelves are required, interiors of side panels shall be drilled with 5 mm holes on 32 mm centers to accept shelf support clips.
2. Top shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Panel to be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.
3. Bottoms shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Bottom is full depth with rabbet cut into rear edge to conceal back and external hanger rail and is secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed. Underside of bottom is considered unexposed and shall be surfaced with sound hardwood veneer faces.
4. Backs shall be 1/4" thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
5. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to sides, top and bottom.

C. Tall Cabinets:

1. Sides shall be 3/4" thick 7-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. When adjustable shelves are required, interiors of side panels shall be drilled with 5mm holes on 32mm centers to accept shelf support clips.
2. Top shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Panel to be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.
3. Bottoms shall be 3/4" thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge.

Bottom shall be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.

4. Backs shall be $\frac{1}{4}$ " thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
5. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to both sides, top and bottom.
6. Toe space shall be 4" high x $3\frac{1}{4}$ " deep with plywood toe board $\frac{3}{4}$ " thick x 4" high, secured between cabinet sides with 8mm hardwood dowels and attached to bottom panel with hot melt adhesive.

D. Sink Cabinets:

1. Sink cabinets shall be constructed with a vertical high head rail at both the front and rear of the cabinet. A false drawer head will be applied over the front high head rail.
2. A fixed bottom and removable back shall be provided for all sink cabinets.

E. Special Purpose Cabinet Backs:

1. Optional exposed exterior backs to be $\frac{3}{4}$ " thick 7-ply hardwood plywood, exposed surfaces faced with maple veneer and unexposed surfaces with sound hardwood veneer faces.
2. Optional removable backs, where specified, shall be $\frac{1}{4}$ " tempered hardboard and be attached to cleats secured to the cabinet sides and bottom. Back panels shall be secured in place with pan head screws.
3. Optional $\frac{1}{4}$ " thick hardboard with finished surface of wear-resistant maple reversed grain vinyl is available.

F. Drawers and doors:

1. Drawer head style
 - a. Overlay Radius Edge $\frac{3}{4}$ " thick maple lumber core cross banded and faced on both sides with oak hardwood veneer. Front edges, (top, bottom and both sides) shall be consistently radius. Grain direction shall be horizontal.
2. Drawer sides, back and fronts shall be $\frac{1}{2}$ " thick solid maple. Top edges shall be radius and free of rough edges.
3. A separate drawer head (of the style selected) shall be applied to the front of the drawer box.
4. Drawer boxes shall be assembled with glued dovetail construction at all four corners.
5. Drawer bottoms shall be $\frac{1}{4}$ " thick tempered hardboard and trapped in grooved drawer box.
6. Underside of drawer to be secured with mechanical fasteners and sealed with a continuous bead of hot melt adhesive to enhance drawer integrity.
7. Reinforce drawer bottoms with a hardwood front-to-back intermediate underbody stiffener, hot melt glued and fastened; one above 24" and two at 42" and wider.
8. Provide clip and rail hanging file system for legal or letter size as indicated by manufacturer's model number.

9. Door style (PER DRAWER HEAD SELECTION ABOVE)
 - a. Overlay Radius Edge-Doors shall be particleboard banded on all four edges with solid maple and faced on both sides with maple hardwood veneer. Front edges (top, bottom, both sides) shall have a consistent radius. Grain direction shall be vertical. Nominal finished door thickness for base and wall cabinets shall be $\frac{3}{4}$ ". Nominal door thickness for tall cabinets shall be 1- $\frac{1}{16}$ ".
10. Special Door styles
 - a. Framed doors, for glazed panels or tack board inserts, shall consist of a solid maple frame (nominally 2- $\frac{3}{4}$ " wide) around the perimeter of the door. Glazed panels shall be $\frac{1}{4}$ " thick tempered safety glass. Base and wall cabinet doors shall be nominally $\frac{3}{4}$ " thick. Tall cabinet doors shall be nominally 1- $\frac{1}{16}$ " thick.
11. Adjustable Shelves:
 - a. Shelves less than 30" in width shall be $\frac{3}{4}$ " thick. Shelves 30" and wider shall be 1" thick.
 - b. Exposed shelves shall be hardwood plywood, surfaces faced with maple hardwood veneers.
 - c. Non-exposed shelves shall be hardwood plywood, surfaces faced with sound hardwood veneers.
 - d. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge.
 - e. Shelves shall be full depth and adjustable on 32-mm centers.
12. Fixed Shelves:
 - a. Exposed shelves shall be hardwood plywood, surfaces faced with maple hardwood veneers.
 - b. Non-exposed shelves shall be hardwood plywood, surfaces faced with sound hardwood veneers.
 - c. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge.
 - d. All non-supported fixed shelves and exposed shelves shall be 1" thick.
 - e. All supported fixed shelves shall be $\frac{3}{4}$ " thick.
 - f. Shelves shall be full depth and be secured to cabinet sides or partitions with multiple 8-mm hardwood dowels, glued and screwed.

2.07 FINISH AND PERFORMANCE REQUIREMENTS

- A. Finish shall be a synthetic water-white alkyd aminoplast conversion coating specially formulated for commercial applications
- B. All surfaces shall be prepared by a thorough sanding and sealing prior to staining.
- C. A pigmented stain shall be hand wiped on wood components
- D. Finish shall be tested accorded to the chemical tests defined by SEFA.
- E. Test Procedure
 1. Sample substrate will be Maple veneer without stain underneath the coating. Panels to be finished according to finishing supplier's guidelines and in

accordance to casework manufacturer's standard procedures. Obtain one sample panel measuring 14" x 24" (355.6mm x 609.6mm). The received sample to be tested for chemical resistance as described herein. Place panel on a flat surface, clean with soap and water and blot dry. Condition the panel for 48-hours at 73° +/- 3°F (23° +/- 2°C) and 50 +/- 5% relative humidity. Test the panel for chemical resistance using forty-nine different chemical reagents by one of the following methods.

- a. Method A - Test volatile chemicals by placing a cotton ball saturated with reagent in the mouth of a 1-oz. (29.574cc) bottle and inverting the bottle on the surface of the panel.
 - b. Method B - Test non-volatile chemicals by placing five drops of the reagent on the surface of the panel and covering with a 24mm watch glass, concave side down.
2. For both of the above methods, leave the reagents on the panel for a period of one hour. Wash off the panel with water, clean with detergent and naphtha, and rinse with deionized water. Dry with a towel and evaluate after 24-hours at 73° +/- 3°F (23° +/- 2°C) and 50 +/- 5% relative humidity using the following rating system.
- a. Level 0 - No detectable change.
 - b. Level 1 - Slight change in color or gloss.
 - c. Level 2 - Slight surface etching or severe staining.
 - d. Level 3 - Pitting, cratering, swelling, or erosion of coating. Obvious and significant deterioration.
3. Test No. Chemical Reagent Test Method
- 1) Acetate, Amyl A
 - 2) Acetate, Ethyl A
 - 3) Acetic Acid, 98% B
 - 4) Acetone A
 - 5) Acid Dichromate, 5% B
 - 6) Alcohol, Butyl A
 - 7) Alcohol, Ethyl A
 - 8) Alcohol, Methyl A
 - 9) Ammonium Hydroxide, 28% B
 - 10) Benzene A
 - 11) Carbon Tetrachloride A
 - 12) Chloroform A
 - 13) Chromic Acid, 60% B
 - 14) Cresol A
 - 15) Dichlor Acetic Acid A
 - 16) Dimethylformamide A
 - 17) Dioxane A
 - 18) Ethyl Ether A
 - 19) Formaldehyde, 37% A
 - 20) Formic Acid, 90% B
 - 21) Furfural A
 - 22) Gasoline A
 - 23) Hydrochloric Acid, 37% B

- 24) Hydrofluoric Acid, 48% B
- 25) Hydrogen Peroxide, 30% B
- 26) Iodine, Tincture of B
- 27) Methyl Ethyl Ketone A
- 28) Methylene Chloride A
- 29) Mono Chlorobenzene A
- 30) Naphthalene A
- 31) Nitric Acid, 20% B
- 32) Nitric Acid, 30% B
- 33) Nitric Acid, 70% B
- 34) Phenol, 90% A
- 35) Phosphoric Acid, 85% B
- 36) Silver Nitrate, Saturated B
- 37) Sodium Hydroxide, 10% B
- 38) Sodium Hydroxide, 20% B
- 39) Sodium Hydroxide, 40% B
- 40) Sodium Hydroxide, Flake B
- 41) Sodium Sulfide, Saturated B
- 42) Sulfuric Acid, 33% B
- 43) Sulfuric Acid, 77% B
- 44) Sulfuric Acid 96% B
- 45) Sulfuric Acid (77%) and Nitric Acid (70%), equal parts B
- 46) Toluene A
- 47) Trichloroethylene A
- 48) Xylene A
- 49) Zinc Chloride, Saturated B

4. Acceptance Level

- a. Results will vary from manufacturer to manufacturer. Laboratory grade finishes should result in no more than four Level 3 conditions with a cumulative score not to exceed 35. Suitability for a given application is dependent upon the chemicals used in a given laboratory.

2.08 COLORS

- A. Selected by the architect from the manufacturer's standard color selection. Color selection shall include no less than ten standard colors. Provide custom colors

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install casework, components and accessories under manufacturer representative's supervision whenever possible, using skilled labor especially trained for this work. Cabinets are to be installed in a professional and industry-accepted manner, including all scribes, moldings and necessary trim, complete and in operating condition according to outlined plans and specifications.

- B. Set casework items plumb and square, securely anchored to building structure.
- C. Furnish casework complete with trim strips, fillers, backs, etc., as may be required; all cutouts required for trim, sinks, etc., shall be made by the casework supplier.
- D. Unless noted otherwise, furnish all sinks, faucets, bubblers, baskets, tailpieces, traps and gas cocks as shown on approved shop drawings for installation and hook-up by Contractor.
- E. Field touch-up blemishes to original finish as approved and accepted by the Architect.
- F. Discard or remove and replace damaged members.

3.02 ADJUSTING

- A. Adjust doors, drawers, hardware and other moving or operating parts to function smoothly.
- B. Adjustable shelves shall be installed consistent with the shop drawings.

3.03 CLEANING

- A. All packaging material and installation-related debris shall be placed in an owner-provided dumpster on the construction site. The work area shall be left broom clean.
- B. Installer shall remove all pencil marks, adhesive and sawdust resulting from this work.
- C. Plastic laminate casework shall be cleaned inside and out to remove the installation related dust and debris.

3.04 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protection of installed casework shall be the responsibility of the general contractor or owner's representative. The owner's representative shall provide materials and labor.

END OF SECTION