

LIBRARY OF LOW COST LEAD HAZARD REDUCTION OPTIONS

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LEAD GENERAL REQUIREMENTS

Spec Number: 9004
Spec Title: PROHIBITED PAINT REMOVAL METHODS
Spec: The following paint removal methods are prohibited on all HUD-funded projects:

- Open flame burning or torching;
- Machine sanding or grinding without a HEPA local exhaust control;
- Abrasive blasting or sandblasting without a HEPA local exhaust control;
- Heat guns operating above 1,100 degrees Fahrenheit or charring the paint;
- Dry sanding or dry scraping, except dry scraping in conjunction with heat guns or within one (1) foot of electrical outlets, or when treating defective paint spots totaling no more than two (2) square feet in any one interior room or space, or totaling no more than 20 square feet on exterior surfaces; and
- Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance in accordance with regulations of the Consumer Product Safety Commission and/or a hazardous chemical in accordance with the Occupational Safety and Health Administration.

Spec Number: 9007
Spec Title: CLEARANCE EXAMINATION BEFORE FINAL ACCEPTANCE
Spec: Prior to final acceptance of the lead hazard reduction work and all rehabilitation work, the property shall be visually inspected for any remaining paint chips, dust and debris and lead dust wipe samples shall be obtained from floors, window sills and window troughs. The contractor shall re-clean all applicable components and surfaces and pay for all additional clearance dust sampling if any dust sample results exceed the thresholds of 40 μ g/SF for floors, 250 μ g/SF for window sills and 400 μ g/SF for window troughs.

LEAD WORKER PROTECTION

Spec Number: 9055
Spec Title: PROHIBITED WORKER ACTIVITIES
Spec: To minimize the potential for worker exposure to lead dust, the following activities are prohibited in any lead hazard reduction work area or space:

- Eating;
- Drinking;
- Chewing gum or tobacco;
- Smoking; and
- Applying cosmetics.

Post an OSHA compliance notice to workers as follows: “Warning – Lead Work Area – Poison – No Smoking or Eating.”

LEAD OCCUPANT PROTECTION

Spec Number: 9076
Spec Title: OCCUPANT LEAD DUST CLEANING AND MAINTENANCE KIT
Spec: Provide the occupant with the following lead dust cleaning and maintenance supplies and equipment, including instructions in the use of the supplies and equipment and places to purchase refills and replacements: 2.5 gallon, two-sided bucket; sponge mop with two replacement heads; three packs of disposable sponges or paper towels; liquid detergent; and two sets of rubber gloves. Also, provide a copy of the EPA pamphlet, *Protect Your Family From Lead in Your Home*.

WORK SITE PREPARATION

Spec Number: 9129
Spec Title: FINAL CLEANING – THREE STEP PROCESS
Spec: After completion of all lead hazard reduction activities, wet mist, fold and remove all containment polyethylene sheeting, with floors last. Placing such sheeting in 6 mil. plastic garbage bags, goose neck and then tape shut. HEPA vacuum all visible surfaces including walls, floors and ceilings from the top down. Detergent scrub all horizontal surfaces in small sections using a 3-bucket system, changing rinse water every 250 SF. Completely rinse with clean water and new equipment. After surface are dry, HEPA vacuum all visible surfaces except the ceiling.

WALL AND CEILING TREATMENTS

- Spec Number: 9155
Spec Title: REPAIR PAINT
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist and scrape all defective paint, feather edge with a wet 100 grit sponge sanding block and apply a top coat of premium acrylic latex paint per manufacturer's instructions.
- Spec Number: 9160
Spec Title: STABILIZATION – LIMITED SURFACE
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on floor. Aggressively scrape all loose paint, wallpaper and plaster with a draw scraper. Feather edges with a wet 100-grit sponge sanding block. Detergent wash, rinse and allow to dry. HEPA vacuum all visible paint chips, dust and debris. Spot prime and apply a premium acrylic latex topcoat per manufacturer's instructions.
- Spec Number: 9161
Spec Title: STABILIZE WALL AND TRIM
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Aggressively scrape all loose paint, wallpaper and plaster with a draw scraper. Feather edges with a wet 100-grit sponge-sanding block. Detergent wash, rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Spot prime and top coat with premium acrylic latex per manufacturer's instructions.
- Spec Number: 9163
Spec Title: STABILIZE CEILING
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Aggressively scrape all loose paint, wallpaper and plaster with a draw scraper. Feather edges with a wet 100-grit sponge sanding block. Detergent wash, rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Spot prime and top coat with premium acrylic latex per manufacturer's instructions.
- Spec Number: 9190
Spec Title: INSTALL VINYL WALLPAPER
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint and wallpaper with water to the point of saturation without dripping on the floor. Wet scrape all loose paint, plaster and wallpaper. Detergent wash, rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Mark or stencil "Lead

Paint” at 4’ intervals. Spot patch irregularities. Install a Type I or II vinyl wallpaper with manufacturer’s recommended pre-mixed adhesive. (Color and pattern choice to be made by the owner from in-stock selections with a \$20 per double roll allowance.)

Spec Number:

9221

Spec Title:

REMOVE PAINT USING HEAT GUN

Spec:

Spread a non-flammable, disposable drop cloth over the floor or ground containment. Workers must wear at least a half face respirator with HEPA and organic filter cartridges. Use a heat gun operating below 1,100 F to soften the paint. Draw scrape to bare substrate using sharpened tools. Package paint residue as hazardous waste. Wash surface with a detergent solution, rinse, allow to dry and HEPA vacuum any visible paint chips, dust and debris. Prime and top coat with premium acrylic latex.

Spec Number:

9222

Spec Title:

REMOVE PAINT USING CAUSTIC STRIPPER

Spec:

Workers must wear protective gloves, disposable full body protective clothing and face shield. Protect all areas not to be stripped. Establish any required floor containment with polyethylene sheeting. Apply caustic stripper paste and any recommended coversheet in accordance with manufacturer’s specifications. Collect residue and rinse water in 55 gal plastic or plastic-lined drums compatible with the caustic stripper. Neutralize surface to below a PH of 6.5 per a litmus paper test, following a wet detergent wash and rinse with clear water, allow surface to dry and HEPA vacuum any visible paint chips, dust and debris. Prime and top coat with premium acrylic latex.

Spec Number: 9223
Spec Title: REMOVE PAINT USING ORGANIC CHEMICAL STRIPPER
Spec: Submit product data and use manufacturer's instructions for each chemical stripping agent. Workers must wear protective gloves, disposable full bodysuits and face shields. Protect all adjacent areas not to be stripped. Establish any required floor containment with polyethylene sheeting. Apply any recommended cover sheet, detergent wash and rinse in accordance with manufacturer's specifications. Collect residue and rinse water in 55 gal drums. Allow surface to dry and HEPA vacuum any visible paint chips, dust and debris. Prime and top coat with premium acrylic latex.

FLOOR TREATMENTS

Spec Number: 9345
Spec Title: VINYL TILE REPAIR
Spec: Remove all damaged floor tiles and clean adhesive from the floor deck. Install replacement tiles using manufacturer's adhesive and specifications to create a cleanable surface. Match existing tile, size, color and style as closely as possible. HEPA vacuum any visible paint chips, dust and debris.

Spec Number: 9351
Spec Title: DISPOSE OF CARPET
Spec: After occupants remove breakable personal items, move furniture. Wet mist carpet with a detergent solution. Cut carpet into 6' x 6' sections. Roll and wrap each carpet section in polyethylene sheeting and remove. HEPA vacuum and wet mop bare floor.

Spec Number: 9355
Spec Title: STABILIZE FLOOR – ACRYLIC LATEX DECK ENAMEL
Spec: Re-nail all loose floorboards and fill holes. Wet scrape or wet buff the entire floor deck, including closet, with 80 grit, non-woven 16" floor buffer pads. HEPA vacuum, de-gloss and mop with a detergent wash. Rinse, allow to dry, HEPA vacuum, and tack rag surface. Apply two coats of premium acrylic latex deck enamel per manufacturer's specifications.

Spec Number: 9357
Spec Title: STABILIZE FLOOR – CLEAR VARNISH
Spec: Re-nail all loose floorboards and fill holes. Wet scrape or wet floor buff the entire floor including closet with 80 grit, non-woven, 16” floor buffer pads. HEPA vacuum and mop with a detergent solution. Rinse, allow to dry, HEPA vacuum and tack rag surface. Prime and apply 2 coats of high gloss polyurethane clear varnish.

STAIRWELL TREATMENTS

Spec Number: 9388
Spec Title: STABILIZE STAIRCASE – POLYURETHANE
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Aggressively wet scrape all deteriorated paint with a draw scraper. Feather edges with a wet 100-grit sponge sanding block. De-gloss, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Prime and top coat with a premium polyurethane deck enamel.

Spec Number: 9401
Spec Title: RAIL SYSTEM STABILIZATION
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Wet scrape deteriorated surface; feather edges with 100 grit wet sanding block; detergent wash and de-gloss remainder of surface; rinse; HEPA vacuum any paint chips, dust and debris; and spot prime bare substrate. Apply a single premium acrylic latex top coat to entire surface.

WINDOW TREATMENTS

Spec Number: 9424
Spec Title: STABILIZE WINDOW USING ACRYLIC LATEX
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Wet scrape all interior and exterior window components with curved draw scrapers. Feather edges with a wet 100 grit sponge-sanding blocks. Re-glaze as required. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Spot prime and top coat interior and exterior with premium acrylic latex.

Spec Number: 9434
Spec Title: WINDOW – FIX TOP SASH IN PLACE AND STABILIZE SURFACES
Spec: After establishing any required floor containment with polyethylene sheeting, screw the meeting rails of the top sash together using two, #10, 2 1/2” screws. Caulk to eliminate all air infiltration with 10 year siliconized

acrylic. Mist defective paint with water to the point of saturation without dripping on floor. Wet scrape, wet sand, wash with detergent solution, rinse, and allow interior window components to dry. HEPA vacuum any paint chips, dust and debris. Prime and top coat interior with premium acrylic latex.

Spec Number: 9435
Spec Title: WINDOW – WRAP TROUGH/WELL AND STABILIZE SURFACES
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Wet scrape all interior and exterior window components. Feather edges with a wet 100 grit sponge sanding block, detergent wash, rinse and allow to dry. HEPA vacuum all visible dust and chips. Spot prime bare wood with quick drying, water-based, clear sealant and top coat with white alkyd enamel paint. Undercut parting bead and stool molding 1/4". Back caulk and nail .027" aluminum coil stock in window trough/well area with ring shank brads. Drill two 3/8" weep holes in storm sash. Caulk perimeter of well with siliconized acrylic.

Spec Number: 9436
Spec Title: WINDOW – INSTALL NEW STOOL/SILL MOLDING AND JAMB LINERS, AND STABILIZE SURFACES
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist, remove, wrap in polyethylene sheeting and dispose of stool/sill molding, stops and parting bead. Temporarily remove window sashes. Install PVC jamb liner channels and spring clip window controls on existing jambs. Install stool, stops and parting bead and laminate trough/well with .027" aluminum coil stock. Mist defective paint with water to the point of saturation without dripping on the floor. Wet scrape all interior and exterior window sash components and trim, including sashes. Wash with detergent solution, rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Prime bare wood. Top coat with premium acrylic latex. Re-install sashes in PVC jamb liner channels.

Spec Number: 9437
Spec Title: REPLACE LOWER SASH AND STOOL, AND INSTALL SASH GUIDES
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist, remove, wrap in polyethylene sheeting and dispose of lower sash, stool/sill molding, parting bead and stops. Replace stool/sill molding. Install single glazed wood sash and aluminum or vinyl sash guides. Laminate trough/well with back-caulked .027" aluminum coil stock. Detergent wash, rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Prime and top coat with premium acrylic latex.

Spec Number: 9450
Spec Title: WINDOW – STRIP PAINT OFF-SITE AND RE-INSTALL
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist, remove window sashes, package in plastic and send window to an off-site paint stripper. Wet mist, wrap in polyethylene sheeting and dispose of all interior trim. Mist any remaining defective paint with water to the point of saturation without dripping on the floor. Scrape all loose paint with a draw scraper. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Re-trim opening to match existing as closely as possible. Repair any damage to walls. Re-install stripped window sashes. Prep for paint and prime entire window unit/trim with premium acrylic latex.

DOOR TREATMENTS

Spec Number: 9491
Spec Title: INTERIOR DOOR – STABILIZE
Spec: After establishing any required floor containment with polyethylene sheeting, mist deteriorated paint with water to the point of saturation without dripping on the floor. Wet scrape door, frame and trim with curved draw scrapers. Feather edges with a wet 100 grit sponge sanding block. Detergent wash, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Spot prime and top coat with owner's choice of premium acrylic latex.

Spec Number: 9495
Spec Title: INTERIOR DOOR – STABILIZE, PLANE AND ADJUST
Spec: After establishing any required floor containment with polyethylene sheeting, remove door at hinge pins and take to a fully-contained lead work room or site. Place pins in plastic bag on jamb for safekeeping. Plane door edges and adjust the hasp and strike plate to minimize door/jamb friction and contact. Mist deteriorated paint with water to the point of saturation without dripping on the floor. Wet scrape door, jamb and trim. Clean and de-gloss door with detergent wash, rinse, dry and HEPA vacuum any paint chips, dust and debris. Spot prime and top coat with premium acrylic latex. Re-install door on hinges.

Spec Number: 9502
Spec Title: INTERIOR DOOR – STRIP PAINT OFF-SITE AND RE-HANG
Spec: After establishing any required floor containment with polyethylene sheeting, remove door at hinge pins, mark location at top edge and wrap in polyethylene sheeting. Package stops in polyethylene sheeting and dispose. Place pins in plastic bag on jamb for safekeeping. Send packaged door to off-site paint stripper. Strip paint on door jamb with a heat gun operating below 1100°F, or with caustic or chemical strippers.

Neutralize all striped components and sand smooth. Detergent wash, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Prime and top coat jamb with premium acrylic latex. Stain and polyurethane door or topcoat with premium acrylic latex. Install brass finish lockset.

Spec Number:

9522

Spec Title:

EXTERIOR DOOR – STABILIZE AND ADJUST

Spec:

After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on floor. Plane exterior door edges and adjust hasp and strike plate to minimize door/jamb friction. Wet scrape door jambs and trim. Clean and de-gloss with detergent solution. Rinse to neutral and allow to dry. HEPA vacuum any paint chips, dust and debris. Spot prime and top coat with premium acrylic latex.

Spec Number: 9537
Spec Title: EXTERIOR DOOR SILL – STRIP
Spec: After establishing any required floor containment with polyethylene sheeting, remove paint from sill using wet scraping, heat gun or chemical or caustic strippers. Neutralize if required. Detergent wash, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Prime bare substrate with alkyd primer. Apply a minimum of 1 coat alkyd enamel finish coat to provide proper and/or adequate coverage.

TRIM TREATMENTS

Spec Number: 9546
Spec Title: TRIM PAINT REPAIR
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist defective paint with water to the point of saturation without dripping on the floor. Wet scrape deteriorated paint, wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Spot prime and spot top coat with premium acrylic latex.

Spec Number: 9547
Spec Title: TRIM – STABILIZE AND PAINT WITH ACRYLIC LATEX
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist defective paint area with water to the point of saturation without dripping on the floor. Lightly scrape all loose paint. Feather edges with a wet 100 grit sponge sanding block saturated with a deglossing agent. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Spot prime and top coat with premium acrylic latex paint.

Spec Number: 9567
Spec Title: TRIM – STRIP PAINT OFF-SITE
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist and remove decorative trim. Scribe opening number into back of trim. Remove nails by pulling through the back of trim. Wrap trim in polyethylene sheeting and send to off-site paint stripper. Detergent wash, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. After stripping, neutralize surface and fill all holes with vinyl spackle. Back prime with alkyd primer and reinstall on same opening. Prep, prime and top coat with premium acrylic latex.

Spec Number: 9586
Spec Title: STABILIZE RADIATOR
Spec: After establishing any required floor containment with polyethylene sheeting, wet mist defective paint with water to the point of saturation without dripping on the floor. Remove deteriorated paint by wet scraping. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any

paint chips, dust and debris. Spot prime bare metal with metal primer. Apply a minimum of 1 coat alkyd enamel or metal paint.

Spec Number: 9587
Spec Title: STABILIZE FOOTED TUB
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Remove deteriorated paint by wet scraping. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris. Spot prime substrate with appropriate primer. Apply a minimum of 1 coat alkyd enamel or metal paint.

Spec Number: 9588
Spec Title: STABILIZE CABINET
Spec: After establishing any required floor containment with polyethylene sheeting, mist defective paint with water to the point of saturation without dripping on the floor. Remove deteriorated paint by wet scraping. Feather edges with a wet 100 grit foam sanding block. Rework doors and/or drawers and adjust hardware to reduce friction. Detergent wash, rinse and allow to dry. HEPA vacuum all surfaces for any paint chips, dust and debris. Spot prime bare wood with alkyd-based primer. Apply a minimum of 1 coat of enamel finish coat.

EXTERIOR TREATMENTS

Spec Number: 9625
Spec Title: EXTERIOR PAINT REPAIR
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Wet scrape to remove loose paint. Detergent wash, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris to prepare surface for painting. Spot prime and apply a premium acrylic latex top coat.

Spec Number: 9626
Spec Title: EXTERIOR PAINT STABILIZATION – LIMITED SURFACE AREA
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Aggressively wet scrape all loose paint. Feather edges with a wet 100 grit sponge sanding block. Wash with detergent solution, rinse and allow to dry. HEPA vacuum any paint chips, dust and debris to prepare surface for painting. Spot prime and apply a premium acrylic latex top coat.

Spec Number: 9627
Spec Title: EXTERIOR – STABILIZE AND PAINT ACRYLIC
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation.

Aggressively wet scrape all loose paint, caulking and glazing with curved and flat draw scrapers. Feather edges with a wet 100 grit sponge sanding block saturated with de-glossing agent. Wash with detergent solution, rinse, allow to dry and HEPA vacuum any paint chips, dust and debris to prepare surface for painting. Spot prime and top coat with premium acrylic latex.

Spec Number: 9648
Spec Title: EXTERIOR – REPAIR AND PAINT TRIM
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Wet scrape all defective paint areas; wash with detergent solution, rinse and allow to dry. HEPA vacuum all visible paint chips, dust and debris. Spot prime all bare substrate and apply a single top coat of premium acrylic latex to the entire surface.

Spec Number: 9649
Spec Title: EXTERIOR – STABILIZE TRIM
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Wet scrape all defective paint areas and feather edges with a wet 100 grit wet sanding sponge. Wash with detergent solution and de-gloss remainder with mesh pad. Rinse, allow to dry and HEPA vacuum all visible paint chips, dust and debris. Spot prime bare substrate, caulk with siliconized latex compound and apply single top coat of premium acrylic latex to the entire surface.

Spec Number: 9684
Spec Title: PORCH – STABILIZE AND PAINT
Spec: After establishing any required ground containment with polyethylene sheeting, mist defective paint with water to the point of saturation. Wet scrape all paint, caulking and glazing. Wash with detergent solution, rinse, allow to dry and HEPA vacuum all surfaces for visible paint chips, dust and debris. Spot prime and apply a minimum of 1 coat of floor and deck enamel.

SOIL TREATMENTS

Spec Number: 9751
Spec Title: BARE SOIL – SEED AND TACK
Spec: Mow lawn using a bagging mower and dispose of waste. Scratch bare soil area surface with a steel rake and till established bare soil walking paths. Fertilize with starter blend and re-seed with K-31 tall fescue. Mulch with straw and then water. Create a 3' high barrier with string, 1" x 1" stakes and marking tape. Water twice a week until 2" stand of grass is established.

Spec Number: 9755
Spec Title: BARE SOIL – INSTALL 4” OF MULCH AND LANDSCAPE BARRIER
Spec: Install a 4’ wide, UV resistant, landscape barrier over bare soil with 6” landscape staples, 1’ on center, after mowing lawn as low as practical. Overfill area with at least 4” of pine bark or shredded hardwood mulch.

Spec Number: 9756
Spec Title: BARE SOIL – COVER PLAYGROUND WITH SAND
Spec: Install a heavy duty, nylon reinforced, landscape cloth between a 4” x 4” or larger perimeter frame over a bare soil play area. Cover with at least 4” of clean play sand to protect landscape fabric.

Spec Number: 9765
Spec Title: BARE SOIL – FOUNDATION PLANTING
Spec: Create a barrier to bare soil access by planting evergreen bushes with defensive briars or needles or other ground cover to eliminate random access. Sir William Barberry, Chinese holly or pachysandra are planting options.

Spec Number: 9768
Spec Title: BARE SOIL – PLAY AREA
Spec: Remove vegetation and level ground at play area. Install heart redwood perimeter frame with 2” x 8” sides supported by 4” x 4” corner posts to dimensions of 8’ x 8’ or larger. Secure sides to posts with lag or carriage bolts countersunk without protrusions. Bevel top edge of corner posts and embed at least 2’ deep. Lay down filter fabric and 6” of tan bark mulch.