

Chapter 20 - Painting

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Things to Consider

- Spending a little time preparing the surfaces and work areas will reduce touch ups and rework.
- Leave 30 minutes at the end of the day for cleanup.
- Do not clean brushes in the sinks. Using a bucket will prevent damage to the sinks.

Safety Issues

- Do not remove the electrical panel cover. Paint around the cover.
- Ensure the power at all outlets is turned off or covered while painting in the room.
- Ensure the power is turned off to temporary outlets, if the outlet covers are removed for painting.

Timing & Prerequisites

- **Exterior door trim and electric meter mounting block** - painted immediately after installation and before the siding.
- **Exterior porch trim** - painted after they are cut and before installation. They will need to be touched up after installation.
- **Interior walls** - painted after:
 - The drywall is complete
 - the attic insulation has been blown in
 - the floors have been sanded
 - the walls are wiped down
 - the floors have been vacuumed.
 - The floor vents have been vacuumed.
- **Interior door jambs, door casing, window trim and baseboards** – painted before they are cut and installed. They will need to be touched up after installation.
- **Knee wall caps** – painted after installation.
- **Shoe molding** – painted before installation.
- **Stair stringers and the basement stairs** - painted after the finish mechanicals are complete.
- **Gas line piping** – painted after the gas meter is installed.
- The House/Project Lead will work with the Construction Superintendent to coordinate these volunteer activities.

Materials Needed

Interior Painting	Exterior Painting
(3) 5 Gallon Buckets of tinted Primer & Paint Small container of untinted primer for ceiling touch ups Painter's Tape	Sand Paper Bondo or Auto Body Filler Exterior Primer White Exterior Semi-Gloss Paint Painter's Tape

Roller Pan Liners Rags Fast Drying Drywall Compound 120 grit sand paper 2 ½” paint brushes Roller Covers Drop Cloths Water for cleanup Brush cleaner	Drop Cloths Foam Roller Covers Water for cleanup Rags Plastic wood filler Fast Drying Spackle White Latex Painter’s Caulk
Painted Interior Trim	Stained Wood Trim
(1) 5 Gallon Bucket of White Semi-Gloss Interior Paint Fast Drying Spackle White Latex Painter’s Caulk Painter’s Tape Drop Cloths	Wood Stain Polyurethane Paint Thinner Rags
Stair Painting	Gas Meter
(1) 1 gallon can of gray semi-gloss latex stair paint	1 spray can of grey enamel paint Painter’s tape

Phase Specific Tools Needed	
Description:	Quantity:
<ul style="list-style-type: none"> ○ Shop Vac ○ Paint Roller Handles and Extension Poles ○ Paint Roller Covers ○ 4” Foam Roller Handles ○ Paint Brushes – 2 ½” ○ Roller Pans ○ Small Paint Containers ○ Sanding Sponge ○ Painters Benches ○ Mudding Knife ○ Fast drying spackle Knife ○ Paint Stirrer ○ Caulk Guns 	

Prepare for Painting

Insulate the Attic

- ❖ **Before starting painting activities, fill the attic with insulation. (See “Post Drywall Activities” in the “Air Sealing and Insulation” chapter).**

Clean Up the Job Site

- **Clean walls and floors, change the furnace filter.**
 - Remove all construction materials from the house. No other construction activities can be performed while painting the walls.
 - Remove all debris from the house.
 - Vacuum out the air ducts.

Clean and Sand the Sub-Flooring

- Remove any spackle, mud, or other adhesives from the sub-flooring using a putty knife.
- Set any nails/screws which are raised up. They will tear the sand paper.
- Sand the seams and any high spots in the floor to a flat and smooth surface using a floor sander and a belt sander.
- Sweep and vacuum the floors. All dust must be removed prior to painting. Dust will damage the paint job.

Clean the Stairs

- Wash off any mud which may have built up over time on the stairs and flooring.
- Scrape off any drywall from the stairs.

Set up Paint Supplies

- Set up the painting supplies in central location.
- First, lay down a drop cloth.
- Count out and stage brushes, rollers and pans for the volunteers who will be painting.

Set up Paint Clean Up

- Set up a water bucket for used brushes.
- Set up paper towels and trash bags for cleaning.

Paint Interior Walls

- All interior walls will be painted with two coats of tinted flat latex primer & paint prior to installing the trim and flooring.
- Before painting, all drywall dimples and holes will be filled with fast-drying spackle, sanded and wiped down.
- You do not need to paint all the way to the floor. The last inch and a half will be covered by baseboard molding and therefore does not need to be primed or painted.

- Finish the wall you are working on before starting a new wall, breaking for lunch, or going home.

Critical Issues

- Extreme care must be taken to avoid getting paint on the ceiling.
- Keep a bucket of water available to clean brushes and rollers as soon as possible.
- Areas to be painted must be clean and dust free. Take time to wipe down areas to be painted and vacuum the floors.

Safety Issues

- Drywall benches or step stools should be used to paint the upper areas of the walls.
- Clear the work area of all trip hazards before starting.

Prep the interior walls

- Examine the ceiling and all corners and make sure all the sanding is complete. Touch up any areas that need it.
- Check outlet/ switch openings and trim any jagged edges that may be present with a utility knife.
- Clean spackle off the window frames.
- Patch any holes in the drywall using fast drying spackle. Put a piece of painter's tape beneath each patch so others know not to paint this area until it has dried and has been sanded.
- Using a rag, wipe down the walls to get any excess drywall dust off the wall.
- Vacuum the floors around the walls so you don't pick up dirt when you are rolling or painting near the floor. Ensure a new collection bag has been installed in the Shop-Vac before using it.
- In the bathroom, remove spackle from the edges of the shower tub. Then use painter's tape to mask the tub and be careful not to drip paint on the tub. Wipe it off with a wet rag if you do.
- If window trim will not be installed later, apply painter's tape to the edges of the window. The windows do not need to be taped off if door stop molding will be installed.

Paint the walls

- ◆ Ensure the walls have been wiped down and the floors vacuumed before proceeding.
 - Mix the paint thoroughly. Stir the paint throughout the day.
 - Apply the paint in thin even coats.

- Watch for drips and thick areas of paint. Smooth them out as soon as possible.
- Work in teams of 2, 3 or 4. One or two persons will use a brush to “cut in” the top edge and corners; while one or two other persons start with the rollers.
- When cutting-in the corners and top edges, paint the 6” area of the wall closest to the edge. Painting a wide strip will allow the person using the roller to cover their area without touching the ceiling or adjoining walls. Do not allow much time to elapse between the time the cut-in work is complete and the time the roller work is complete.
- When rolling, apply even pressure with the roller to avoid streaking. Apply the paint in a “W” pattern; then roll it out in a back and forth motion in the opposite direction; then finish the area off with an up and down motion. Do NOT let the roller touch the ceiling. Do NOT let the roller touch the floor. If the roller touches the floor, wash out the roller immediately.

Clean up

- Clean any streaks or paint drips before they dry.
- Remove any painter’s tape as soon as the paint is tacky. If the paint has dried, use a knife to cut along the edge of the tape before removing the tape.
- Allow at least ½ hour to clean brushes and roller handles.
- If you are going to lunch or stop working for a short period of time, you may temporarily wrap rollers tightly with plastic.
- Dispose of the roller covers at the end of the job.
- Make sure all roller handles and brushes are thoroughly cleaned when you are done.

Ceiling Touch ups

- Any wall paint which erroneously appears on the ceiling can be covered with un-tinted interior latex primer or ceiling paint.

Paint Interior Trim and Doors

- All interior trim and doors will be painted with one coat of white interior semi-gloss latex paint prior to being installed.

Critical Issues

- Be careful when removing and moving the doors. Do not bump the walls.
- Keep a bucket of water available to clean brushes and rollers as soon as possible.

Painting Trim Stock

- Before installing the following trim, apply one coat of paint to the surfaces which will be exposed after they are installed:
 - Door Casing
 - Bi-pass and Bi-fold door jambs
 - Window trim
 - Baseboards
 - Shoe Molding
- Set up two sets of saw horses covered with plastic and with a large drop cloth below.
- Suspend the trim stock on saw horses.
- Paint the boards continuously from one end to the other. Do not stop in the middle and allow the paint to dry before continuing.
- Only paint the surfaces which will be exposed.
- Check the sides and back for drips. Check them before they dry.

Painting By-Pass and Bi-Fold Doors

- Before installing the by-pass and bi-fold door slabs, apply one coat of paint to each side.
- Stand the doors in a work area with plastic under and behind them or place them on saw horses with drop cloths under them.
- Paint the doors with one coat of white interior semi-gloss latex paint.
 - Paint the panels first with a brush.
 - Paint the flat surfaces with a 4" sponge roller.
 - Paint the first side, then allow 2 hours before turning the doors over and painting the other side.
- Ensure the paint is thoroughly dry before installing them.

Painting Pre-Hung Doors

Critical Issues

- Do not paint the hinge mortises. Remove any drips from the mortises before it dries.
- When painting door jambs which are not installed, **do not bend the joints**, they will break easily.

- Pre-hung doors and jambs can be painted before installation or after installation, depending on the timing and availability of volunteers.
- If the doors are painted before installation:
 - Unpack the doors.
 - Remove the hinges from the door and jamb.
 - Paint the doors as previously described.
 - Carefully stand the jambs up in a work area with plastic in front and behind them.
 - Paint the jambs standing up, similar to the doors.
 - Only paint the exposed edges.
 - Re-assemble the doors and jambs after the paint is dry.
- If the doors are painted after installation:
 - Remove the doors and hinges from the installed jambs.
 - Paint the doors as defined above.
 - Fill the holes in the jambs with fast drying spackle.
 - Paint the jambs in place with one coat of paint.
 - Re-hang the door after the paint is dry.

Painting Knee Wall Caps

1. Prep the caps and trim.
 - After the cap and trim has been installed, check for nail holes and fill with some fast-drying spackle. Let it dry; then lightly sand it.
 - Wipe down the trim. Remove all dust and debris.
 - Do not apply painter's tape to the walls around the trim. The tape will pull the paint off the walls.
2. Paint the caps and trim.
 - Paint the cap and trim with two coats of white interior semi-gloss latex paint.
 - Paint the cap and trim with a small brush and a 4" foam roller to even out the top of the cap.

- Carefully cut in the line between the trim and the wall to prevent a lot of touch up painting. A small amount of touch up painting for the wall is to be expected.

Touch up Trim Paint

- Ensure all paint on the trim, except the shoe molding, has been touched up before the flooring is installed.
- After the trim is installed, all nail holes will be filled with fast-drying spackle like “Fast and Finish”. Larger holes may be filled with plastic wood putty. Let it dry; then lightly sand it.
- Fill in large gaps with white latex painter’s caulk. Smooth it into the gaps with a wet finger. Apply a small bead of painter’s caulk in the seam between:
 - The door jambs and the casings
 - The casings and the wall
 - The window trim and the window
 - The window trim and the wall
 - The knee wall cap and the wall
 - The knee wall cap and the casing below
 - The knee wall casing and the wall.
- After the holes have been filled and sanded, touch up the trim with white interior semi-gloss latex paint.
- Touch up the paint on the shoe molding after it is installed.
 - Place a drop cloth in the area to be painted.
 - Do not apply painter’s tape to the walls.

Back Caulk Trim

Using a white latex caulk, fill the gaps between trim and the wall, including door casings and baseboards. **This is a task for an experienced person.**

1. Do not tape the wall. The tape will pull the paint off the wall.
2. Back caulk the door and window trim before painting the trim.
3. Apply latex caulk. Cut a **very** small hole in the end of the caulk tube. Start at a corner and apply a small bead of caulk. Apply a small amount of pressure on the tube with the caulking gun. Move smoothly along allowing the caulk to flow evenly. Release the pressure just before reaching the other end.
4. Smooth the caulk. Using a wet finger, **lightly** press the caulk into the gap. Move along the edge quickly and smoothly. Always start at one end and move to the other end with a continuous motion.
5. Quickly clean up any caulking which smeared up on the wall or trim with a clean wet rag. Rinse or replace the rag often.

Stairs

- The basement steps will be painted with gray basement stair paint on the treads and white interior latex paint on the risers.
- Both the basement and 2nd floor stair stringers will be painted with white interior semi-gloss latex paint.
- The stair stringers can be painted after the walls and before the baseboards are installed.
- The stringers on any stairs which will be carpeted must be painted before the carpeting.
- The basement stairs are painted after the construction and the mechanicals are finished.
- This activity should be planned when there is no activity or inspections planned for the house.
- This is normally one of the last activities before clean-up.

Painting Stair Stringers

1. Prep the Stair Stringers.
 - Check the stringer for holes. Fill these with fast drying spackle and sand smooth before painting.
 - Wipe down the stringers, removing all dust and debris.
 - No tape is required above the stringer as this area will be covered with baseboard.
2. Paint the Stair Stringers.
 - Paint the stringers with two coats of white interior semi-gloss latex paint.
 - Paint the stringers with a brush and roll out with a 4" sponge roller.

Painting Basement Stairs

1. Prep the Steps.
 - Scrape off the mud and debris. If sanding is required, use a dust mask.
 - Tape off the stringers with painter's tape.
 - Cover the basement floor at the bottom of the steps with a drop cloth.
2. Paint the Steps.
 - Paint treads with one coat of gray semi-gloss basement stair paint.
 - Paint the risers with two coats of white interior semi-gloss latex paint.
 - Paint the risers first. Start at the top and work towards the bottom.
 - Paint the treads in two parts. Paint one side and let it dry before painting the other side. This will allow you to paint from top and escape from the basement when you are done. When painting the second side, overlap the middle by several inches.

Painting/Staining Handrails

- The stairway handrails will be either stained or painted based on the Home Owner's selection sheet. Consult the selection sheet.
 - Painted handrails will be painted with white semi-gloss latex paint.
 - Stained handrails will be stained with Golden Oak stain (Oil based) and covered with clear polyurethane.
1. Prep the handrails.
 - Sand the handrails with 120 grit sand paper. Using finer sand paper will close the wood grain and prevent the handrail from absorbing the stain.
 - Clean the handrails with a tack cloth.
 2. Painted handrails.
 - Paint the handrails with a small paint brush.
 - If the handrails are to be painted, apply the paint before installation.
 - Apply 2 coats of white interior semi-gloss latex paint.
 3. Stained handrails.
 - If the handrails are to be stained, apply the stain and polyurethane before installing them.
 - Apply the stain to the handrails with a foam brush. Let the stain sit for 10 minutes and then wipe off the excess stain.
 - Apply 2 coats of stain.
 - Lightly sand the handrails with a very fine sand paper, like a 330 grit.
 - Apply the polyurethane with a clean brush. Watch for drips.
 - Sand the handrail again with a fine sand paper. Apply a second coat of polyurethane.

Exterior Trim

- The exterior door jambs and brickmold should be painted as soon as the door is installed and before the security door is installed. Do not install the siding until the brickmold has been painted. Paint the brickmold and jambs with one (1) coat of white exterior latex paint.
 - Remove the weather seal before painting the jambs. Store the weather seal in a secure location and reinstall after the door is painted.
 - Do not paint the hinges. Cover the hinges with painter's tape.
- The Meter Mounting boards should be painted as soon as possible after they have been installed, preferably before the siding is installed.
- The Smart Trim on the porch posts and beams will be painted before the trim is installed.
- The porch railings will also be painted before the trim is installed.
- Paint all six sides of the exterior trim with one coat of exterior latex primer paint then with one coat of white exterior semi-gloss latex paint before installing the trim. This will include:
 - All un-primed exterior trim, such as balusters and 2x2s
 - All Smart Trim pieces.
- After installing the trim, small holes, such as nail holes, should be filled with a fast-drying spackle. Larger holes should be filled with plastic wood filler and sanded smooth.
- Any outdoor painting or touch-up painting of the porch trim and railings will need to be done when the weather permits; dry and above 50 degrees.
- Prime and paint the balusters.
 - After cutting the baluster to size and before assembling the porch railings, apply primer to the balusters.
 - Paint each side individually and allow them to dry. Watch for drips on the adjoining sides.
- Paint the Smart Trim.
 - After the trim pieces have been cut to fit, paint all six sides of the Smart Trim with one coat of exterior primer and one coat of white exterior paint using a 2 ½" paint brush.
- Fill holes in the Porch Beams and Porch Railings
 - After the railings have been installed, fill any nail holes with fast-drying spackle.
 - Apply latex caulk to Smart Trim seams. As the trim is caulked, wipe off the caulk with a wet sponge or rag.
- Touch up the repaired areas with exterior white semi-gloss paint.
 - Place drop cloths over the porch floor and surrounding areas before painting.

Exterior Doors

- The exterior door can be painted after the walls have been painted.
 - Painting the doors will require having the doors open for 3 – 4 hours. Plan this activity for late morning when the weather permits.
1. Prep the Exterior Doors
 - Check door for any dents or flaws. If there are any, they must be filled in with Bondo.
 - ◆ Sand the dent down to bare metal.
 - ◆ Mix the Bondo per the directions on the package.
 - ◆ Apply the mixture to the dent and smooth it off, leaving a slight mound of the mixture.
 - ◆ Let the Bondo dry (usually about 20 minutes).
 - ◆ Sand to a smooth finish.
 - Tape off the door hardware, particularly the hinges with painter's tape. The hinges on the exterior doors cannot be removed. The lockset can be taped or removed.
 - Tape off the plastic trim around the windows.
 2. Paint the Exterior Doors
 - Paint both sides of the doors with two coats of exterior white semi-gloss latex paint.
 - ◆ Paint the inserts using a 2 ½" paint brush.
 - ◆ Paint the stiles and rails with a foam roller.
 - Mix the paint thoroughly.
 - Allow at least 2 hours to dry and then apply the second coat.



Before continuing, stop and complete the “**Painting Checklists**” found in Procore/Inspections.

Summary

Item	Color	Finish		Coats
Interior Walls	Tinted	Flat	Interior Latex Primer & Paint	2
Interior Door Jambs	White	Semi-Gloss	Interior Latex	1
Door Casings	White	Semi-Gloss	Interior Latex	1
Door Slabs	White	Semi-Gloss	Interior Latex	1
Baseboards	White	Semi-Gloss	Interior Latex	1
Shoe Molding	White	Semi-Gloss	Interior Latex	1
Window Trim	White	Semi-Gloss	Interior Latex	1
Exterior Doors	White	Semi-Gloss	Exterior Latex	2
Exterior Door Trim	White	Semi-Gloss	Exterior Latex	1
Meter Mount	White	Semi-Gloss	Exterior Latex	Primer + 1
Porch Smart Trim	White	Semi-Gloss	Exterior Latex	Primer + 1
Porch Railings	White	Semi-Gloss	Exterior Latex	Primer + 1
Stair Stringers	White	Semi-Gloss	Interior Latex	2
Stair Treads	Gray	Flat	Interior Latex	1
Stair Risers	White	Semi-Gloss	Interior Latex	2
Interior Handrails	Golden Oak/Clear White	Semi-Gloss Semi-Gloss	Stain & Polyurethane Interior Latex	1 & 2 2