New Construction Interior - Wainscot - Bead-Board

1. Project Overview

This specification covers the painting of factory primed bead-board wainscote in new construction interior settings. Bead-board wainscote features distinctive vertical grooves creating texture and shadow lines, typically installed at partial wall height with trim pieces at top and bottom. The factory primer provides initial protection but requires proper preparation and finishing to achieve a professional, durable result. Production rates are measured in Square Foot/Hour to facilitate accurate estimating and resource planning.

2. Task Breakdown

Task ID	Task Name
T001	Surface Inspection
T002	Surface Cleaning
T003	Nail Hole Filling/Spackling
T004	Caulking Seams and Transitions
T005	Sanding Preparation
T006	Spot Priming (as needed)
T007	First Coat Application
T008	Light Sanding Between Coats
T009	Final Coat Application
T010	Post-Finish Inspection
T011	Final Touch-Up

3. Standard Operating Procedures

SOP ID: SOP-BW-PREP-01 **Paintable Item ID:** INT-WAINSCOTE-BP **SOP Name:** Bead-Board Wainscote Preparation **Task Sequence:** T001, T002, T003, T004, T005, T006 **Overall Skill Level:** Medium **Version:** 1.0

SOP ID: SOP-BW-PAINT-01 **Paintable Item ID:** INT-WAINSCOTE-BP **SOP Name:** Bead-Board Wainscote Painting **Task Sequence:** T007, T008, T009, T010, T011 **Overall Skill Level:** Medium **Version:** 1.0

4. Task Details

Task ID	Task Name	Production Rate (SF/HR)	Skill Level	Materials Required	Application Methods	Factors Affecting Task
T001	Surface Inspection	500-600	Medium	Bright flashlight, Moisture meter	Visual and tactile inspection	Surface condition, Lighting conditions
T002	Surface Cleaning	250-300	Low	Tack cloth, Vacuum with brush attachment, TSP substitute	Hand wiping, Vacuuming	Dust level, Site cleanliness
T003	Nail Hole Filling/Spackling	175-225	Medium	Lightweight spackling compound, Putty knife	Knife application, Finger application	Number of holes, Depth of countersink
T004	Caulking Seams and Transitions	150-200	Medium	Paintable acrylic caulk, Caulk gun	Gun application, Tool with finger	Number of seams, Gap width
T005	Sanding Preparation	200-250	Medium	220-grit sandpaper, Sanding sponge,	Hand sanding, Sponge sanding	Primer condition, Detail complexity

				Sanding block		
T006	Spot Priming	225-275	Medium	Acrylic primer, Brush, Mini-roller	Brush application, Roll application	Area requiring priming, Primer quality
T007	First Coat Application	175-225	Medium-High	Premium latex paint, Brushes, Short-nap rollers	Brush and roll, Spray and backbrush	Groove complexity, Paint viscosity
T008	Light Sanding Between Coats	300-350	Medium	320-grit sandpaper, Sanding sponge	Hand sanding, Sponge sanding	First coat smoothness, Environmental conditions
T009	Final Coat Application	200-250	Medium-High	Premium latex paint, Brushes, Short-nap rollers	Brush and roll, Spray and backbrush	Groove complexity, Paint coverage needs
T010	Post-Finish Inspection	450-500	High	Bright movable lighting	Visual inspection	Lighting conditions, Quality standards
T011	Final Touch-Up	300-400	High	Touch-up kit, Artist brushes	Spot application, Feathering	Number of defects, Visibility of area

T001: Surface Inspection Thoroughly examine the factory primed wainscote for quality, coverage, and defects. Check moisture content with meter (should read below 12%). Identify thin spots in primer, shipping damage, or installation defects. Mark areas requiring special attention with removable tape or chalk.

T002: Surface Cleaning Remove all dust, dirt, and contaminants using vacuum with brush attachment for grooves, followed by wiping with tack cloth or slightly damp microfiber cloth. Pay special attention to groove recesses where dust collects. Allow surface to dry completely if damp cloth is used.

T003: Nail Hole Filling/Spackling Fill all nail holes, dents, and small imperfections with lightweight spackling compound. Apply slightly proud of surface, then remove excess before drying. For recessed grooves, use finger application to prevent excess build-up on edges. Allow to dry completely per manufacturer's instructions.

T004: Caulking Seams and Transitions Apply paintable acrylic caulk to all seams between board sections, corners, and transitions to other surfaces (particularly top edge meeting wall). Use minimal bead size and tool immediately to create smooth, concave joint. Remove excess before drying, especially from grooved areas. Allow to dry completely per manufacturer's instructions.

T005: Sanding Preparation Lightly sand entire surface with 220-grit sandpaper to promote adhesion and smooth filled areas. Use sanding sponge for grooved areas to maintain profile definition. Sand with grain direction. Remove all dust with vacuum and tack cloth after sanding.

T006: Spot Priming Apply primer to all spackled areas, bare spots, and areas with inadequate factory primer. If factory primer shows significant inconsistency, consider full-surface priming. Allow primer to dry completely per manufacturer's instructions.

T007: First Coat Application Apply first coat of finish paint using combined brush/roller technique. Use brush to apply paint into grooves, then immediately follow with short-nap (1/4") roller on flat surfaces. Maintain wet edge to prevent lap marks. Apply at manufacturer's recommended spread rate. Allow to dry completely per manufacturer's instructions.

T008: Light Sanding Between Coats Once first coat is completely dry, lightly sand with 320-grit sandpaper or fine sanding sponge to remove any debris or raised grain. Focus on flat areas, using minimal pressure on edges and grooves to avoid removing paint. Remove all dust with vacuum and tack cloth after sanding.

T009: Final Coat Application Apply final coat using same technique as first coat, ensuring consistent coverage and finish. Pay special attention to grooved areas to prevent excess build-up that could obscure detail. Maintain wet edge to prevent lap marks. Apply at manufacturer's recommended spread rate.

T010: Post-Finish Inspection After final coat has dried, inspect entire surface using strong directional lighting to identify any defects, missed areas, or inconsistencies. Mark areas requiring touch-up with removable tape at edge of section.

T011: Final Touch-Up Address all identified defects using appropriate touch-up technique. For small defects, use artist brush and feather edges. For larger issues or visible areas, consider recoating entire board section to ensure uniform appearance. Verify all touch-ups under appropriate lighting conditions.

5. Production Rates and Factors

Baseline Production Rates (SF/HR):

Task	Low Complexity	Medium Complexity	High Complexity
Surface Preparation (Combined)	90-110	70-90	50-70
Painting Application (Combined)	100-120	80-100	60-80
Complete Process Average	95-115	75-95	55-75

Production Rate Adjustment Factors:

Factor	Multiplier
Deep/Complex Bead Pattern	0.75-0.85
Shallow/Simple Bead Pattern	1.1-1.2
Poor Factory Primer Condition	0.7-0.8
Excellent Factory Primer Condition	1.1-1.2
High Detail Areas (>1 per 50 SF)	0.8-0.9
Seamless Runs (>50 LF without breaks)	1.1-1.2
Working Height >7 ft	0.8-0.9
Restricted Access	0.7-0.8

Additional Considerations:

- Square footage should be calculated based on actual surface area
- Rates assume adequate lighting and standard environmental conditions (65-75°F, 40-60% RH)
- Add 10-15% time for darker colors requiring additional coats
- Add 15-20% time for high-gloss finishes requiring additional preparation

6. Application Methods

Method	Advantages	Disadvantages	Best Use Scenario	Production Rate Effect

Brush and Roller Combination	Excellent detail in grooves, Good control, Moderate speed	Labor intensive, Requires skill for consistent finish	Standard approach for most bead-board projects	Baseline
HVLP Spray with Back-Brushing	Fast application, Consistent coverage	Requires masking, Equipment setup time, Overspray concerns	Large areas (>500 SF), Production-focused projects	+20-30% on large areas, -10% on small areas
Brush-Only Application	Highest quality finish, Best for deep grooves	Slowest method, Labor intensive	Premium residential, Historic restoration	-30-40%
Mini-Roller with Brush Follow-Up	Good for shallow grooves, Faster than brush-only	Less effective for deep grooves	Projects with shallow bead profiles	+10-15% for shallow grooves

Recommended Application Sequence for Brush and Roller Combination:

1. Cut in edges and transitions with 2-2.5" angled sash brush
2. Apply paint to grooves with appropriate size brush (typically 1-2")
3. Immediately follow with short-nap (1/4") roller on flat surfaces
4. Maintain wet edge and consistent pressure
5. Work in manageable sections (typically 3-4 feet wide)

7. Surface Handling Instructions

Pre-Installation Considerations:

- Allow factory primed bead-board to acclimate in installation environment for 48-72 hours before installation
- Store flat to prevent warping
- Keep clean and dry during storage and installation
- Handle with clean gloves to prevent oils from transferring to surface

Post-Installation/Pre-Painting Considerations:

- Allow adhesives and installation materials to fully cure before painting (typically 24-48 hours)
- Verify moisture content is below 12% before beginning painting process
- Confirm all fasteners are properly countersunk
- Inspect for shipping or installation damage before beginning preparation

Paint System Compatibility:

- Use only water-based acrylic or acrylic-urethane systems unless specified otherwise
- Ensure primer compatibility with factory primer (test in inconspicuous area if uncertain)
- For high-moisture areas (bathrooms, etc.), consider moisture-resistant paint system
- For high-traffic areas, use scuff-resistant paint with appropriate sheen (satin or semi-gloss)

Cure and Hardness Considerations:

- Allow minimum 24 hours between coats (longer in high humidity or low temperature)
- Full cure typically requires 7-14 days depending on environmental conditions
- Avoid cleaning or abrasion during cure period
- Avoid placing items against painted surface for minimum 72 hours

8. Assumptions and Limitations

Site Preparation Assumptions:

- Area is clean, dry, and free of dust-producing activities during painting
- Adequate lighting is provided for work area
- Temperature maintained between 50-90°F during application and curing
- Relative humidity below 85% during application and curing
- Adequate ventilation is provided
- Floor protection is in place
- Adjacent surfaces are adequately protected

Material Assumptions:

- Factory primer is in generally good condition
- Materials used meet or exceed manufacturer specifications
- Paint products are from same manufacturer unless specifically tested for compatibility
- Materials are properly stored and prepared according to manufacturer instructions

Scope Limitations:

- Specification does not include repair of structural defects
- Major surface repairs or replacement of damaged sections is excluded
- Specification assumes normal working hours and access
- Excessive furniture moving or protection is excluded
- Touch-up beyond standard punch list is excluded
- Long-term maintenance is excluded

Environmental Limitations:

- Work should not proceed in temperature or humidity conditions outside manufacturer recommendations
- Adequate drying time must be allowed between coats, regardless of schedule pressure
- Forced drying methods are not recommended

9. Measurement Methodology

Standard Unit: Square Foot/Hour

Measurement Procedure:

1. Measure height of wainscote from bottom edge to top edge
2. Measure length of each wall section where wainscote is installed
3. Multiply height by length for each section to calculate square footage
4. Add all sections for total square footage
5. Deduct openings larger than 2 square feet (doors, large built-ins)
6. Do not deduct for electrical outlets, wall switches, or small interruptions

Special Calculation Considerations:

- For irregular heights, measure at multiple points and use average height
- For curved walls, break into smaller sections approximately 2-3 feet wide and calculate each segment
- For inside corners, measure to the corner for each intersecting wall
- For outside corners, include return dimension in measurement
- For stairways, divide into triangular and rectangular sections for calculation

Production Rate Calculation:

1. Determine baseline production rate from tables based on complexity
2. Apply adjustment factors for specific project conditions
3. Calculate labor hours by dividing total square footage by adjusted production rate
4. Add setup and cleanup time (typically 30-60 minutes per day)
5. Add travel time between areas if applicable (typically 10-15 minutes per floor change)

10. Estimating Inspection Checklist

Inspection Point	Description	Common Issues	Rate Adjustment Conditions	Photo Documentation

Factory Primer Condition	Assess coverage, adhesion, and uniformity of factory primer	Thin spots, poor adhesion, inconsistent coverage	Reduce rate by 20-30% if significant repriming needed	Close-up of typical surface and any defects
Bead Profile	Measure depth and width of grooves, assess complexity	Very deep grooves, intricate patterns, non-standard profiles	Reduce rate by 15-25% for deep/complex patterns	Photo with measuring tool for scale
Surface Texture	Feel surface for roughness, grain raise, or defects	Rough texture, grain raise, debris in primer	Reduce rate by 10-15% if significant sanding required	Close-up showing texture
Installation Quality	Inspect seams, joints, and fastener setting	Gaps at seams, proud fasteners, misaligned sections	Reduce rate by 15-20% for poor installation	Photos of problematic areas
Edge and Transition Details	Examine all transitions to other surfaces	Complex moldings, irregular edges, multiple materials	Reduce rate by 10-15% for complex transitions	Photos of typical transitions
Corner Quantity	Count number of inside/outside corners	Excessive corners, irregular angles	Add 5-10 minutes per corner beyond 4 corners per 100 SF	Photo of layout showing corners
Moisture Content	Test with moisture meter at multiple locations	Reading above 12%, inconsistent readings	Delay project if readings exceed 12%	Photo of meter reading
Work Access	Evaluate ease of access to all areas	Furniture proximity, restricted movement, height challenges	Reduce rate by 20-30% for difficult access	Photos showing access restrictions
Required Finish Level	Verify quality expectations and finish requirements	Unrealistic expectations, non-standard	Adjust based on required quality level (economy,	Document finish level agreement

finish requirements	standard, premium)