SUGGESTED TWELVE STEPS for LONG-LASTING EXTERIOR PAINT
PERFORMANCE
On WOOD SIDING and TRIM

1. **Ensure that all siding and trim are securely fastened** to minimize movement and to provide a firm stable connection between all exterior components. Make sure all siding is nailed tight to the course behind and to the framing or subsheathing. Make sure all window and door trims are tight as well as corner boards, friezes, fascias, soffits, watertables, corbels, etc. Locate and set all nails, screws and fasteners slightly below the surface.

2. **Remove all failed caulking.** Clean joints free of cracked and loose caulking for later replacement.

3. **Remove all loose, flaking or failed paint** down to the next sound layer. If previous layers are adhering tightly don’t force it. If gouging occurs, move on to the next adjacent area. It is not necessary, unless one chooses, to completely strip-down to bare wood by removing all of the previous sound paintlayers. The exceptions are the paint defects listed in the companion report *PAINTING THE WOOD EXTERIOR OF YOUR HISTORIC BUILDING*. However if a long-lasting paint performance is desired, total and complete paint removal is required.

   **Note:** Some controversy exists among painters as to the use of an alkyd or oil based primer as a satisfactory primer even under acrylic/latex finish paint. It is their understanding that oil based primers absorb into the surface of the substrate in lieu of sitting on the surface as latex primers do. If an oil product is used as a primer the permeability, or the ability to pass vapor moisture through the substrate, is sacrificed.

4. **Repair all deteriorated wood.** Repair using a wood epoxy repair system such as manufactured by *ABATRON*. Make sure after removing decayed areas, that sound stable wood is adjacent before making your repair. Follow the manufacturer’s directions. Consolidate the wood fibers first with the liquid epoxy then follow up with the paste epoxy.

5. **Sand all bare surfaces** with 80 grit sandpaper feathering-out the edges to provide a smooth transition of the exposed wood to any retained paint layers. Sand away the “gray” weathered surface to expose a sound “green” wood appearance. Failure to do so will ensure premature adhesion failure.

6. **Clean the area** to be painted with TSP using no greater pressure than that out of a garden hose; agitate to entrap dirt particles with a bristle brush and rinse-off. Begin at the bottom and work up to reduce streaking. If mildew is present, wash-off with bleach water. Wear gloves and eye protection.

   **CAUTION!** Before proceeding with any further work make sure all surfaces are dry. Check this by using a moisture meter, (Readily available at any quality paint store.) Ensure that no surface exceeds 15% moisture before caulking, pre-treating, priming or top coating.
7. **Caulk every split, crack, or seam** that will possibly compromise the paint job. Use foam backer rod if the seam/joint exceeds ½” in width. Smooth with a finger or a rag. Keep in mind that the use of sealants and caulking can trap water as well as keeping it out. Make sure that water always has a way to escape.

   **CAUTION!** Do not caulk the horizontal gaps between horizontal lap Siding. Keeping these gaps open allow wall condensation to escape.

8. **Pretreat all bare and repaired areas** with a paintable, penetrating wood preservative. Recent research has indicated that the use of an appropriate pre-treatment aids adhesion and extends the longevity of exterior paint. This provides additional protection, if and when paint failure occurs, providing additional protection from moisture and UV degradation. The use of a pre-primer also consolidates the wood fibers providing a more receptive surface to apply the primer.

9. **Prime all pretreated wood** with a quality latex acrylic bonding primer. Latex acrylic products are recommended due to the fact that they are permeable allowing water vapor to pass through and “breath” as well as being more flexible as the wood substrate beneath expands and contracts through the seasons. This is especially important when painting a new or a newly stripped surface. If covering over existing known oil paint use a quality latex acrylic bonding primer. If “bleed-thru” of the wood’s natural oils occurs use an alkyd (oil) primer sparingly; thick enough to avoid the brittleness and the resulting failure associated with full-strength alkyd coatings.

10. **Seal all fasteners.** Spackle over all nails, screws and fasteners that were set previously in Step #1 with a dab of oil-based window glazing. This will control rust” bleed-thru” if oxidation occurs on the head of the fasteners.

11. **Top coat** with a quality 100% acrylic latex, top-of-the line traditional paint. The acrylic latex products are recommended due to the fact that they are permeable allowing water vapor to pass through them and for their flexibility. Brushing is the preferred method of application. Avoid the new generation “coatings” due to their short history of use on vintage buildings, their lack of permeability, their inability to be removed utilizing appropriate preservation methods and if used according to the recommended application thickness they may obscure fine detail. If spraying it is important to back-brush in order to work the paint into all the rough fibers and knotholes and ensuring an even coating of paint without reducing the required mil thickness recommended by the manufacturer. Satin sheen is recommended for both the siding and the trim in that it is more resistant to mildew. It also hides imperfections almost as good as a flat sheen and presents a long-lasting fresh look to the building. Always follow the manufacturer’s application instructions in regard to minimum/maximum temperatures, moisture and recoat guidelines.

12. **Finish coat** with final layer of topcoat following manufacturers recoat guidelines. Apply as soon as possible in order to avoid the finished surface becoming dirty. If waiting a few days prior to recoating, wipe the surface with mineral spirits prior to painting in order to remove any dirt, dust or contaminants.
Ron Zmyslo
219 Pennsylvania Street
Indianapolis, IN 46205
317-987-8912
rzmyslo@aol.com