

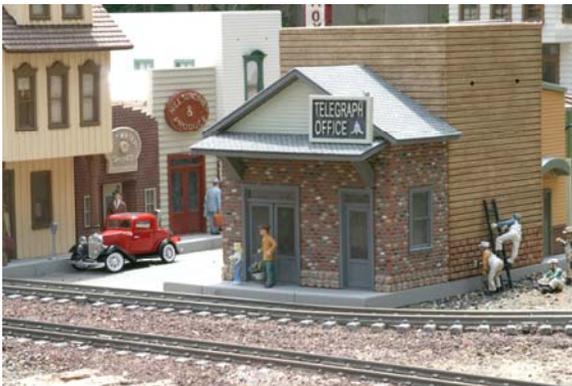
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BASIC INSTRUCTIONS & DESIGN GUIDELINES

BEFORE WE BEGIN....A few words about Precision Board....The following instructions are simply what works best for us. One of the many fantastic aspects of this great product is that no two completed projects will be exactly the same, even if they began as identical kits. Any tool that you can use on wood, including saws, drills, wire brushes, sandpaper, craft knives, Dremel® and dental tools, can be used on Precision Board. Several of our San Diego garden railway club members work with PB and each has developed a unique style, in spite of the fact that we learned about the material from one another. Please take the time to read through all of our instructions. We suggest that you experiment with some sample pieces before you actually begin your project. Do not hesitate to email or call with any questions or comments.



ENDLESS POSSIBILITIES!!!

Guidelines to consider when designing your project:

- 1.) Precision Board is a high density urethane product manufactured by Coastal Enterprises in Orange County, California. Because it does not absorb moisture, and will not rot or deteriorate, it is perfect for structures and accessories in outdoor garden railways. Precision Board has no grain, hence it has no beam strength. ½" material is suggested for projects up to 24" long. ¾" material is recommended for projects over that, up to 48". Braces, gussets and other supports should be part of your design. We suggest using no less than 15# density material for projects where texture and grain are important. Use 20# density where sharp edges, corners and details are critical.
- 2.) We have the best success using Gorilla Polyurethane Glue for raw Precision Board joints. Non-foaming glues are easier to use, but do not form the strong bonds needed for lasting strength. We miter all corners. Apply glue sparingly in flat continuous beads, keeping to inside edge of corner. A fine mist of water can be applied to insure curing. Stainless steel pins can hold corners temporarily. Either clamp or shrink wrap pieces together while glue sets up. Excess glue can be cleaned off with acetone before it cures. Coastal Enterprises has recently approved the use of quick setting glues in gel form only with the requirements that it be applied in a continuous bead and the joint be clamped during cure time. Crazy Glue type products can also be used to attach small pieces of trim that will be primed as part of the structure.

- 3.) Precision Board's only known enemy is the UV ray. Priming with a high density urethane compatible primer that specifically provides UV protection is critical to the longevity of your project. Many skip this step in deference to added cost and time. Considering the effort you will invest in your creation, why take a chance and ignore the number one mandate of the manufacturer?
- 4.) Once primed, any paint will adhere. We use acrylic paint (Americana, Ceramcoat, etc.) commonly sold in craft stores. Be sure to apply a final coat of UV resistant clear matte sealer. Krylon makes a great product. This helps protect the paint from UV damage and fading.
- 5.) The other critical direction from PB's maker is that equal coats of primer, paint and sealer be applied to all surfaces. This prevents any possible warping that might be caused by the tension applied to the surface when these coatings are drying.
- 6.) Once the PB has been primed, and or painted, non-foaming glues can be used for final assembly. We prefer clear Silicone, but products such as Titebond III Wood Glue work fine.
- 7.) Metal fasteners, such as screws or brads, are not recommended due to expansion and contraction of the various materials.

Things we use for carving:

- A.) Dremel® type tool with appropriate bits. We use #7134 for all basic carving and either #945 or #84922 for creating additional depth or texture. Some manufacturers make bits narrower than the #7134. These work very well where smaller joints are desired. Begin carving at a slow speed, gradually increasing until you find what is comfortable for you. If the bit wanders, try speeding the Dremel® up for better control. Dental tools add detail, such as knot holes on our wood patterns. Wire brushes add grain to wood, texture to stone. Wood chisels and ice picks work great too.
- B.) Metal ruler and guide. Ones with thin cork adhered to the backside do not slide around as much, hence are easier to use.
- C.) Pencil for marking guidelines and joints. A 5mm mechanical pencil is great.
- D.) Some method to remove carving dust, such as a vacuum with a brush attachment, an aerosol can of air, or a compressor air tool.
- E.) A folded towel or cushion to rest your work on.
- F.) Even though Precision Board is a non-toxic material, you may want to wear a standard particulate dust mask. Protective eyewear is always suggested.

Carving Brick or Stone Block:



Our brick material comes with the horizontal joints already planed. The only carving you are required to do is the vertical joints between the individual bricks. This is done using the #7134 bit. Bricks are 3/8" long, with 3/16" brick ends at alternate corners. Joints between bricks are staggered from row to row.



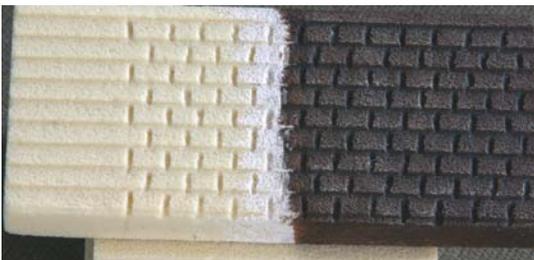
The stone block material comes with the horizontal joints already planed. You carve only the vertical joints between stones, and round the edges and corners. Add texture with the Dremel® and/or a wire brush. Blocks are 3/4" long. Joints between blocks are staggered from row to row.

Wood Plank, Large or Small Board & Bat, Logs:



Our Wood Plank, Large or Small Board & Bat, and Log patterns have the joints between boards and logs already planed into the Precision Board. You can round edges of boards and logs as desired. Wood texture is added with wire brushes. Knot holes, splits in wood, etc., can be done with a Dremel®, dental tool or craft knife.

Large or Small Shiplap Siding:



The Shiplap Siding patterns need no additional carving. Simply prime, paint and seal for a realistic siding look. If using the Small Shiplap pattern for composition shingle roofing, carve joints between shingles 5/16" apart.

The Large Shiplap Siding pattern can be enhanced with some horizontal wire brushing for added siding texture. When used for composition shingle roofing, carve joints between shingles 5/8" apart. When used for wood shake shingle roofing, wire brush vertically for rough wood texture. Then carve joints between wood shake shingles.



Smooth Surface Precision Board:



Smooth surface material can be carved or fabricated with any tools that can be used on wood. The range of possibilities is only limited by your imagination. You can create random stone, flagstone, fieldstone, random wood pieces, etc., etc.

**There you have the basics. Now have fun with this exciting material.
More detailed instructions are included with any sheet or kit purchase.
Always feel free to email or call with any questions.**

Best of luck in your Garden Railway adventures!!