

Styrene as a Modeling Material

Stan Seeds MMR

Scratch Building Scale Models

Using Styrene

Advantages of Styrene

- Dimensionally Stable
- Easy to Cut
- Can be Drilled, Sanded, Painted
- Welds easily (Methyl Ethyl Keotane) MEK
- Wide Variety of Sources
- Blends Well with other Materials
- Low Cost

Applications

- Buildings
- Streets
- Bridges
- Signals
- Fences
- Masters for Molds (to cast multiple parts)

A Building



A Bridge



A Signal Bridge



Victorville Bridge



Making Masters for Molds



Types of Construction

Structures

- Single Ply
- Laminated
- Spaced or Filled

Structural Steel

- Strip Stock
- Angle Iron Stock
- Make your own

Streets and Lots

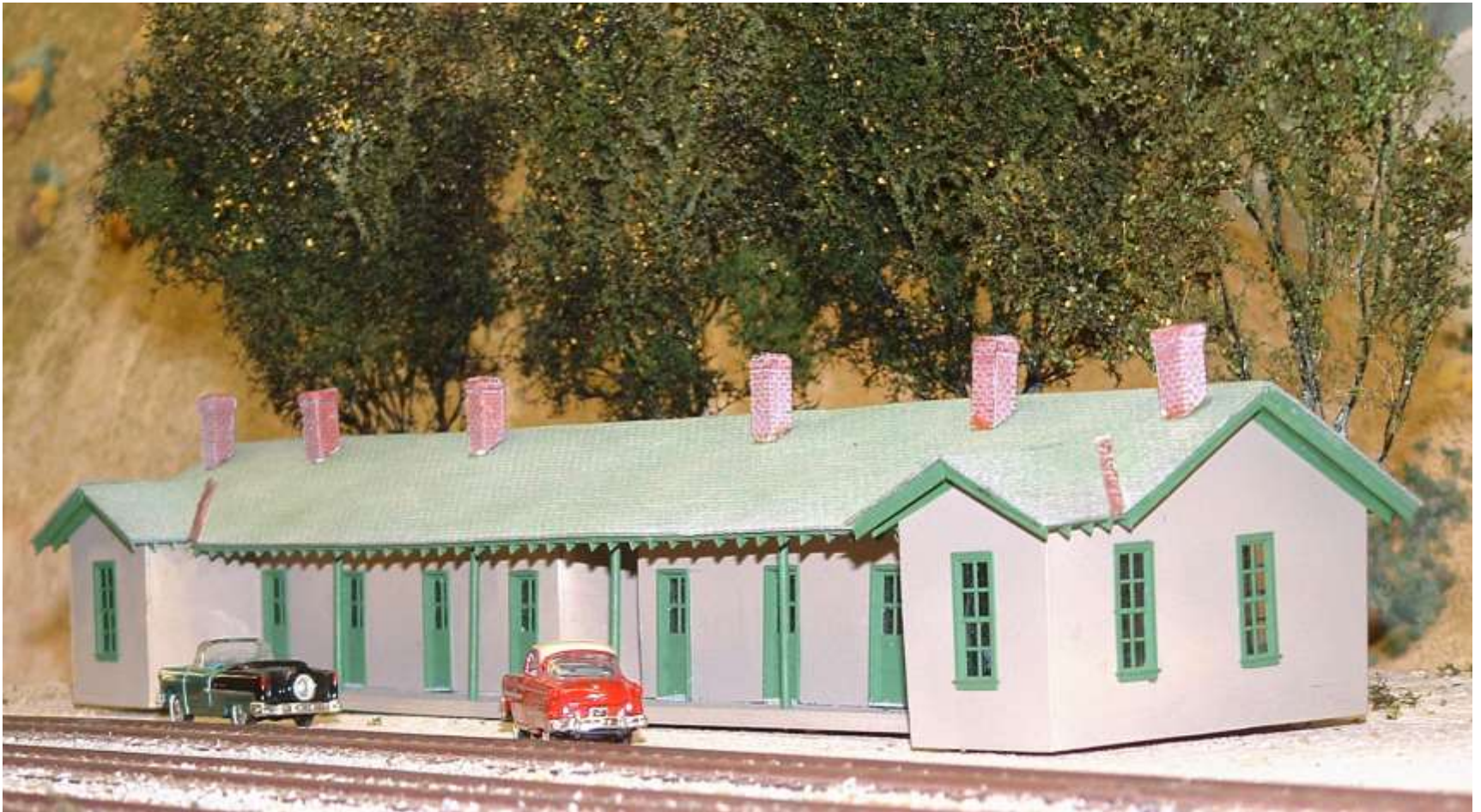
- Sheet

Masters

- Some from Styrene
- Some from castings
- Combinations

Use your imagination!

Single Ply



Laminated Construction



Spaced or Filled



To Start

- You will need Reference Materials
 - Pictures
 - Plans
 - Make your own plans
- Consider Other Parts of Model
 - Windows and Doors (Tichy , Grandt Line)
 - Central Valley Beams, Steps and Ladders
 - Plastruct or Evergreen roofing and wall material
 - Home Made Castings
 - Finish

Standard Tools

Cutting Tools

- #5 Exacto Knife
- Utility Knife
- Single Razor Blades
- Nail Clipper
- Pinking shears
- Emery Boards

Measuring Tools

- Scale Rule
- Steel Straight Edge
- Try Square
- Right Angle Blocks

Other Tools

- Work Board
- Chopper
- Stripper
- Pin Vise and Drills
- Pounce Wheel
(rivets)
- Micrometer
- ACC
- MEK (with holder)
- Canopy Glue
- Acrylic Paint

Sources of Material

- Evergreen (Strip and sheets with various surfaces – clapboard, board and batten, concrete block, clear, etc.)
- Plastruct (same selection as Evergreen)
- Laird (sheet in 4ft. X 8ft.)

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Dimensions

- .010 thru .125 in sheet (.015,.020,.030, .040, .060, .080)
- .010 x .010 thru .125 x .125 in strips
- Shapes (I Beam – C Beam – Girders)

Note:

1 HO Ft. = .125

6 HO inches = .060

3 HO inches = .030

1 HO inch = .010

Tips and Techniques

Score and Break, don't try to cut through

- First cut is a clean groove
- Follow up with repeated cuts using a heavier tool (utility knife)
- About 1 pass for each 10 thousands
- Snap apart – smooth edges

Tips and Techniques (cont'd)

- Use Overhead Slides for window walls
 - Paint inside and outside of building
 - Sandwich slide between laminations
 - Prepaint major mullions
 - glue to slide after walls are assembled
- Bevel corners 45 degrees

Tips and Techniques (cont'd)

- Use “clips” to assemble walls
- Make thick walls spaced and filled with plaster of paris
- Cut arches with a fostner bit (both sides at once)
- Assemble window walls rather than trying to cut out windows
- Make diamond shingles – pinking shears

Window Wall Building



Tips and Techniques (cont'd)

- Form beams and structural shapes on edge of work board
- Silk screen makes great HO window screen
- Overhead slides for big windows
- Stucco can be simulated with fine sand and Dull Coat
- **Keep everything square!!!**

The World is yours
from the ridiculous



To the sublime

