



HO Structure Kit
GREATLAND
SUGAR REFINING
933-3092

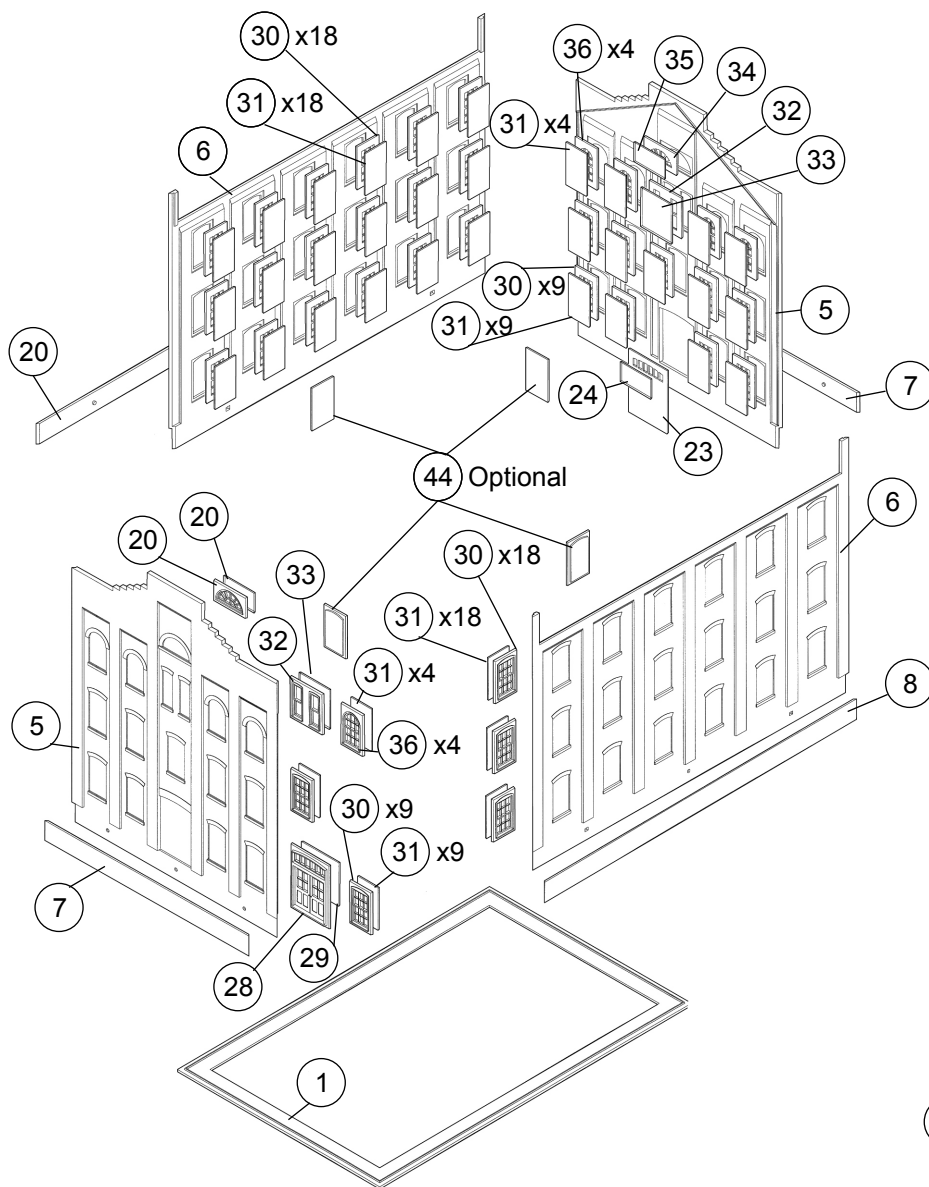
Thanks for purchasing this Walthers Cornerstone Series® kit. All parts are made of styrene plastic, so use compatible glue and paint to assemble your model. Please take a few minutes to read the instructions and study the drawings before starting construction.

From a first cup of coffee to the last bite of dessert, the average American will eat 64 pounds of sugar this year! Both sugar cane and sugar beets are used to produce refined sugar, and railroads still play a role in moving beets, which are time and temperature-sensitive. When farmers loaded directly into waiting cars, anything that rolled was used including ore jennies, boxcars, reefers and stock cars! To speed the work, trackside loading ramps, which limited the traffic to open hoppers and gondolas were later introduced. Once the factory started production, beets from hundreds of miles away arrived by the trainload and the factory ran nonstop.

While transportation has changed (trucks unload into mobile, mechanical pilers that create mountains of beets near conveyors.), the refining process is much the same. Beets are cut into French-fry sized strips to extract raw juice in a hot water wash. This is pumped into carbonation tanks where CO₂ bubbles through the mixture causing impurities to settle to the bottom. The juice is filtered in a clarifier then boiled under vacuum to remove the water. When complete, the juice resembles pancake syrup. The thickened juice is filtered to remove any remaining impurities, then boiled again before heading into a centrifuges and spun rapidly producing both molasses and sugar. After being washed in clean, hot water to produce pure white crystals, the granules are dried and sorted by size from fine powder to large crystals.

Finished sugar was sold in 100-pound (45kg) bags, and shipped to customers in boxcars until the 1950s when covered hoppers and pneumatic handling systems took over at both sugar refiners and consuming industries.

Running around the clock, your new model can be the busiest place on your railroad and makes an ideal theme for operations in a limited space. See your dealer, the current Walthers HO Scale Model Railroad Reference Book or walthers.com for additional details to complete your scene.



MAIN BUILDING

1) Glue Glass (24, 29) to backs of Doors (23, 28). Glue Doors to openings on End Walls (2x 5) as shown.

2) PLEASE NOTE: Brick Inserts (20x 44) may be used in place of Windows (30) on any wall if desired. On Side Walls (2x 6), glue Windows (30; 18 per wall) to all openings, and finish with Glass (31; 18 per wall). On End Walls (2x 5), glue Windows (30; 9 per wall) to first and second floor openings, and Glass (31; 9 per wall) to windows.

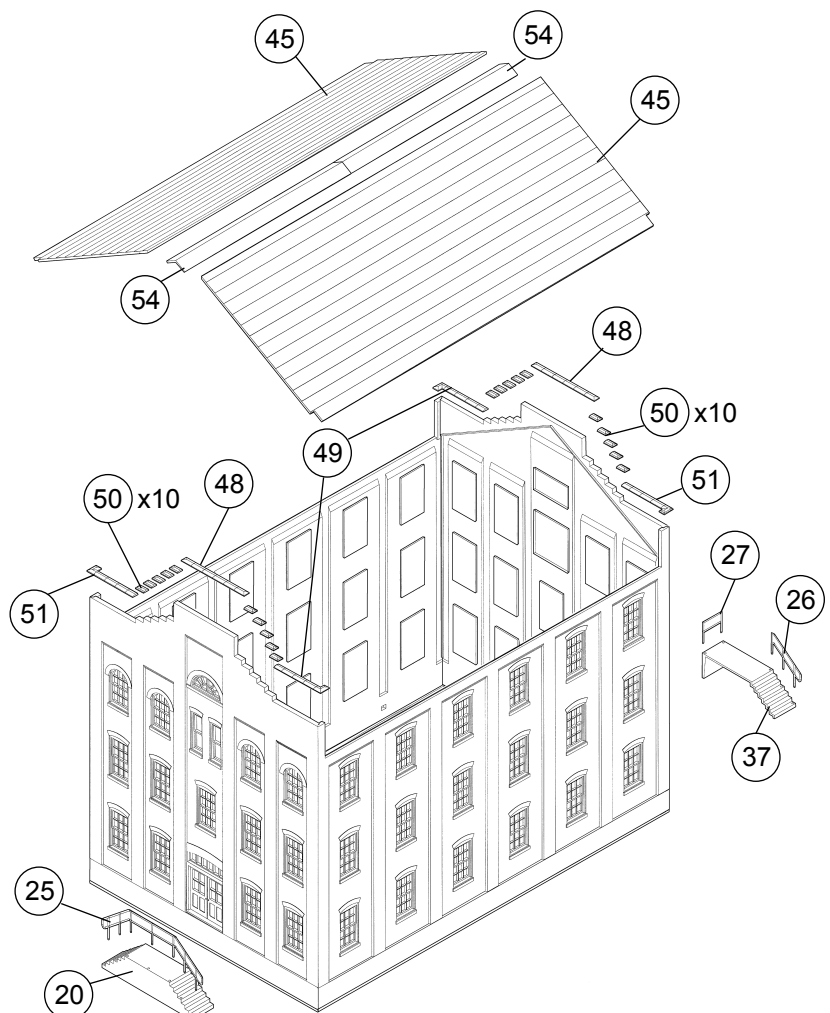
3) On third floor of End Walls, glue Small Windows (36; 4x per wall) in place and finish with Small Glass (31; 4x per wall). Glue Double Window (32; 1x per wall) to center opening, and finish with Double Glass (33; 1x per window). Glue Half-Round Window (34; 1 per wall) and Half-Round Glass (35; 1x per window) to top of End Walls.

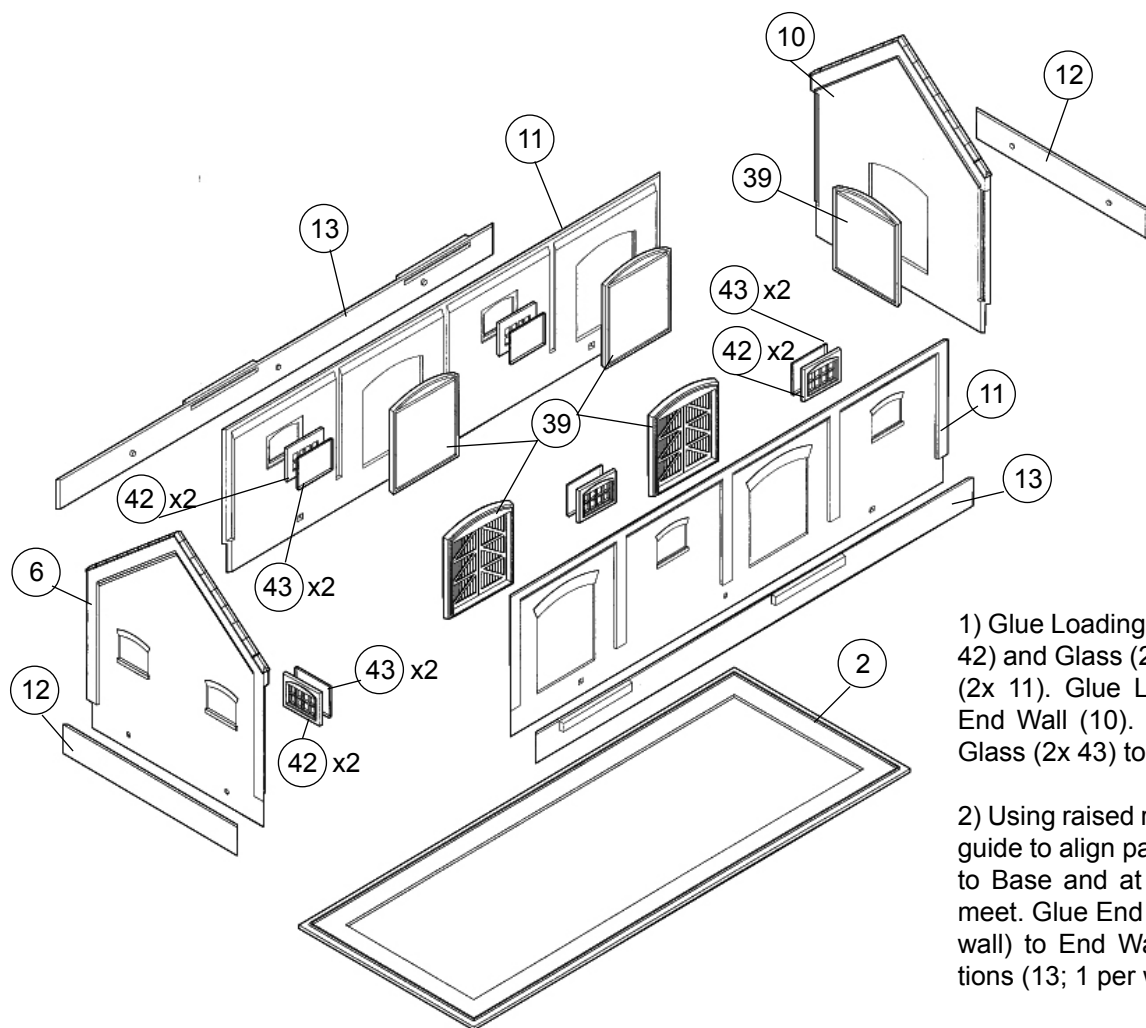
4) Using raised ridge on Base (1) as a guide to align parts, glue Walls (2x 5, 6) to Base and at inside corners where parts meet. Glue End Wall Foundations (7; 1 per wall) to End Walls, and Side Wall Foundations (8; 1 per wall) to Side Walls.

5) Noted raised ridges on the underside of Roof Halves (2x 45); use these to position Roof Joiners (2x 54) and glue Joiners in place. Glue Roof Halves to Joiners and in center where parts meet. Glue finished roof assembly to wall assembly.

6) Glue End Wall Caps (48, 49, 50, 51) to top of each End Wall as shown.

7) Glue Front Railing (25) to Front Steps (20) and Back Railings (26, 27) to Back Steps (37). Glue completed steps to foundation on each end wall, under doorways.





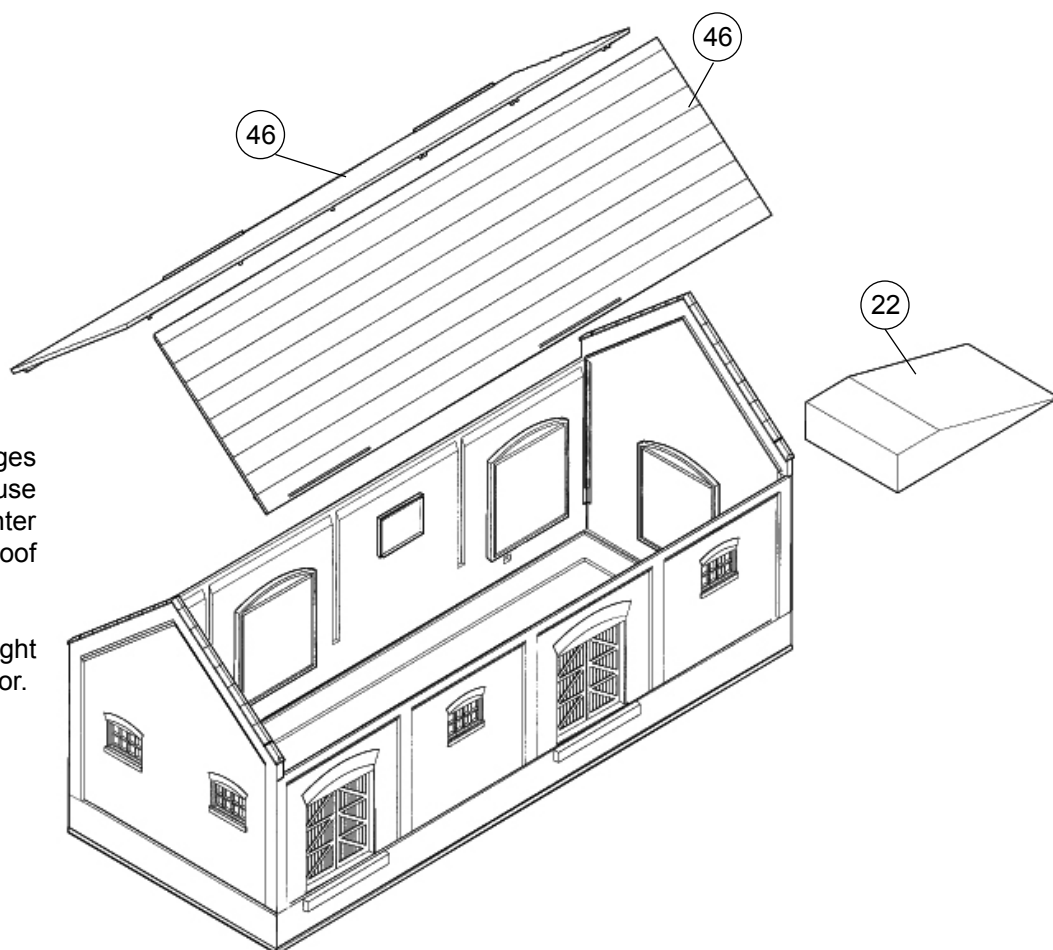
ANNEX

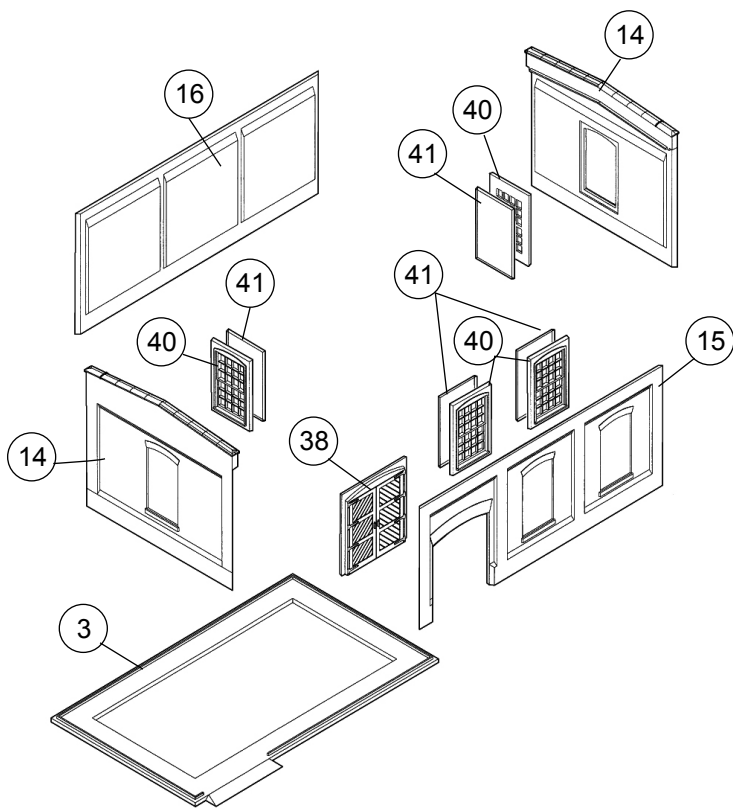
1) Glue Loading Doors (2x 39), Windows (2x 42) and Glass (2x 43) to backs of Side Walls (2x 11). Glue Loading Door (39), to Right End Wall (10). Glue Windows (2x 42) and Glass (2x 43) to back of Left End Wall (9).

2) Using raised ridge on Annex Base (2) as a guide to align parts, glue Walls (2x 11, 9, 10) to Base and at inside corners where parts meet. Glue End Wall Foundations (12; 1 per wall) to End Walls and Side Wall Foundations (13; 1 per wall) to Side Walls.

3) Note the locator tabs on the edges of Annex Roof Halves (2x 46); use these to align halves and glue in center where parts meet. Glue finished roof assembly to wall assembly.

4) Glue Loading Ramp (22) to Right End Wall (10) under the Loading Door.



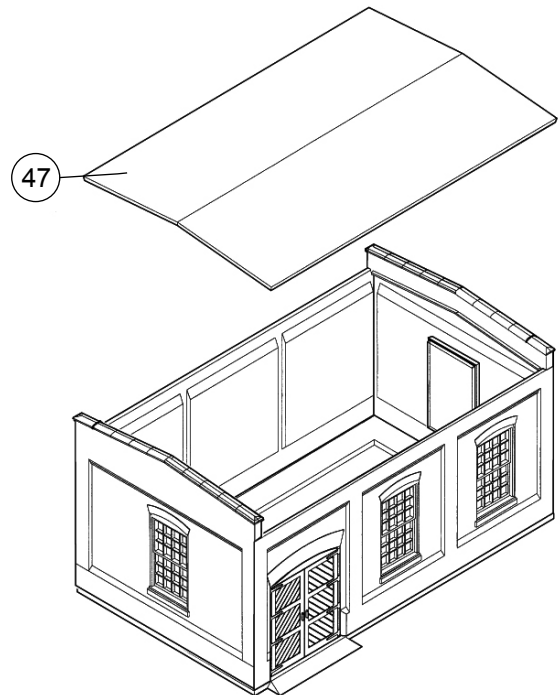


POWERHOUSE

1. Glue Door (38), Windows (2x 40) and Glass (2x 41) to back of Powerhouse Front Wall (15). Glue Window (40) and Glass (41) to back of each Powerhouse End Wall (2x 14)

2) Using raised ridge on Powerhouse Base (3) as a guide to align parts, glue Walls (2x 14, 15, 16) to Base and at inside corners where parts meet.

3) Glue Roof (47) to ridges on End Walls.



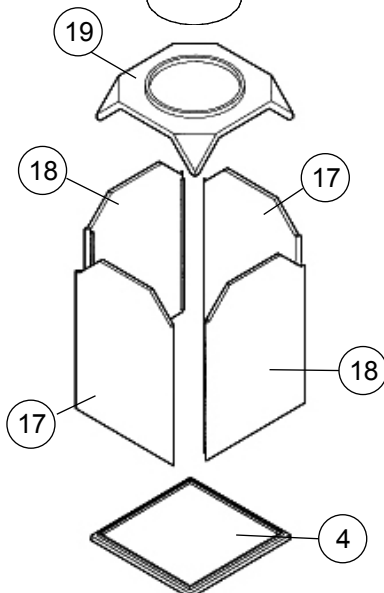
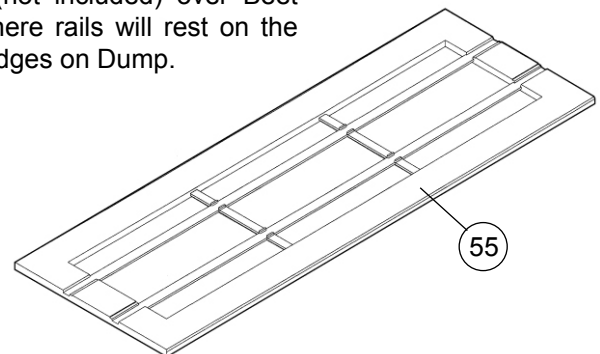
Smokestack

SMOKESTACK

1) Using raised ridge on Smokestack Base (4) as a guide to align parts, glue Smokestack Base Walls (2x 17, 2x 18) to Base and at inside corners where parts meet. Glue Smokestack Support (19) to top of base assembly. Glue Smokestack (21) to raised ring on top of Support.

BEET DUMP

1. Before mounting track (not included) over Beet Dump (55), remove ties where rails will rest on the dump. Glue rails to raised ridges on Dump.



DECALING

1. After cutting out the decal, dip in water for 10 seconds, remove and let stand for 1 minute. Slide decal onto surface, position and then blot off any excess water.
2. Lightly brush Micro Sol® on top. This will soften the decal allowing it to con-form to irregular surfaces. DO NOT TOUCH DECAL while wet!
3. When the decal is thoroughly dry, check for any trapped air bubbles. Prick them with the point of a small pin or hobby knife blade and apply more Micro Sol®.