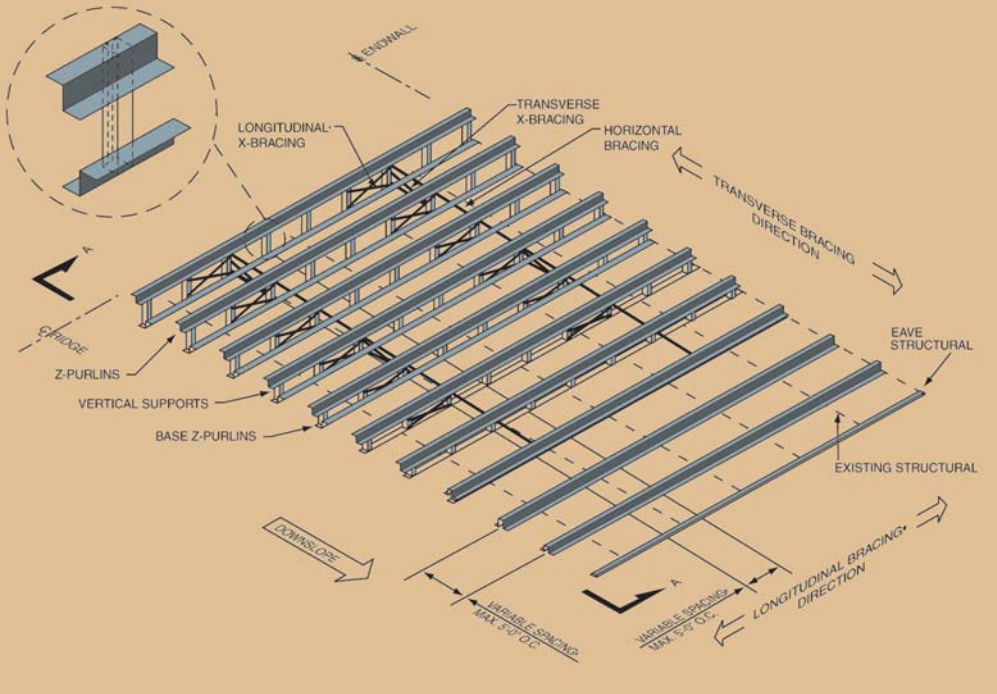


BUTLER® SLOPE BUILD-UP REROOF SYSTEM



A versatile reroof solution designed to be installed over any existing flat or sloped roof.

SLOPE BUILD-UP SYSTEM

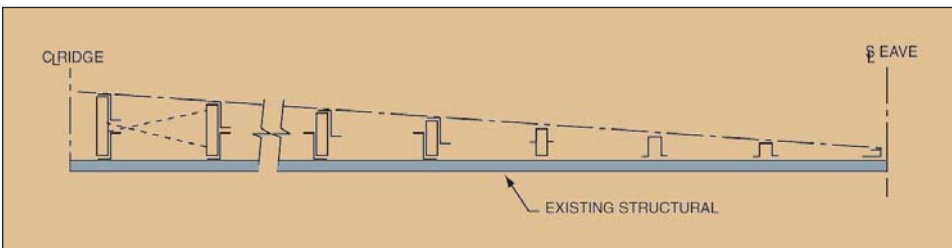
The Reroof Slope Build-Up System (SBU) is a versatile retrofit structural framing solution designed to enable the efficient installation of Butler exclusive standing seam roof systems over any existing flat roof or one with minimal slope.

DESIGNED FOR LOW-SLOPE APPLICATIONS

The MR-24® roof, a structural standing seam roof system designed for low-slope applications starting at 1/4":12", is installed on prepunched structurals to maintain proper panel alignment and insure long-term weathertightness.

HIGHER SLOPE APPLICATIONS

The SBU Framing system also accommodates the versatile VSR™ architectural roof system designed for higher slope applications where the roof plays a predominant role in the building's appearance.



SLOPE BUILD-UP REROOF SYSTEM SPECIFICATIONS

1. GENERAL

- 1.1 The Butler® Retrofit Slope Build-Up System, hereafter referred to as the "System", is designed to be installed over any flat built up or membrane roof having a substrate of steel or wood. The System is an assembly of quality components, assembled in the field to achieve the desired slope. Field cutting vertical components in the field allows the contractor to make adjustments for inconsistencies in the existing roof surface. All materials manufactured and purchased by Butler Manufacturing Company are of first quality. To insure quality, all materials and parts must meet rigid material and performance specifications established by Butler's Research and Development facility.

2. SYSTEM COMPONENTS

2.1 Base Members

The base members of the System shall be (1.) a base clip meeting or exceeding the requirements of ASTM A572. Or (2.) a prepainted base spanning purlin, 16 gage x 3", 4", 6", 8" or 9-1/2" in height meeting or exceeding the requirements of ASTM A570.

2.2 Vertical Members

The vertical members of the System shall be (1.) a 2-1/2" x 2-1/2" cee section with a G90 galvanized coating. The cee section shall be 16 gage (50 ksi), or 12 gage (50 ksi) thickness meeting or exceeding the requirements of ASTM A446. Or (2.) a 2" x 2" x .188 (36 ksi) prime painted structural tube meeting or exceeding the requirements of ASTM A501.

2.3 Upper Members

The upper members of the System shall be a 16 gage x 3", 4", 6", 8" or 9-1/2" purlins with both flanges broke parallel to the roof slope. The purlin shall be prepainted steel 55 ksi meeting or exceeding the requirements of ASTM A570. Roof panel design requires these members to be placed at a maximum spacing of 5' 0" O.C.

2.4 Bracing

2.4.1 Horizontal Bracing

The horizontal bracing shall be a 16 gage x 1-1/4" x 1-1/4" prepainted angle which meets or exceeds the requirements of ASTM A570.

2.4.2 Longitudinal and Transverse X-bracing

The longitudinal and transverse bracing shall be prepunched zinc (wax coated) strapping 1-1/4" width and 22 gage thickness. This strapping meets or exceeds the requirements of ASTM D3953 and Federal Specification 005781(1).

2.5 Connections

All structural connections of the System shall be made using a 5/16" x 1" self drilling screw. Due to variable site conditions Butler shall not be responsible for the connection of the Retrofit System to the existing structure. A Professional Structural Engineer should determine the size and population of fasteners to be used for this connection.

3. DESIGN INFORMATION

- 3.1 The recommended slope range of the System is 1/4":12" through 6-1/2":12".
- 3.2 Maximum height of the System above the existing roof plane shall be 15'.
- 3.3 The System has been designed in accordance with the 1996 American Iron and Steel Institute (AISI), the 9th Edition of the American Institute for Steel Construction (AISC), and in accordance with reliable engineering methods and practices.
- 3.4 The design loads (uniform and concentrated, gravity and wind) shall be applied to the Retrofit Slope Build-Up System. The System will transfer these loads to the existing structure. This load transfer will result in concentrated loads being applied to the existing structure. Butler will not be held responsible for the structural integrity of the existing structure due to the transfer of additional load of the System into the existing structure. A Professional Structural Engineer should review the existing structure to determine the structural integrity.
- 3.5 The Butler Retrofit Slope Build-Up System requires that a 3" minimum layer of blanket insulation be used between the roof panel and the retrofit purlin to control condensation and dampen roof vibration and noise. It is recommended that the newly created attic space be evaluated for any required venting and/or fire code requirements.

4. ROOF PANELS

The Retrofit Slope Build-Up System is designed to interface with either the MR-24® Standing Seam Roof System with the 360° (Pittsburgh Double Lock Seam) or the VSR™ Architectural Standing Seam Roof System. Both roof systems carry a UL-90 uplift, CEGS 07416, and ASTM E330 modified certification, as well as FM windstorm ratings.

5. FINISHES

Following is a listing of finish descriptions referred to in this document.

- 5.1 Prepainted - Primer applied to hot rolled coil structurals will be zinc coating per ASTM A653 G-30 specification then application of one coat of clear acrylic finish. The acrylic coated galvanized steel will equal or exceed the performance requirements of Federal Specification TT-P-664D and SSPC Paint-25 (purlins and girts).
- 5.2 Prime Painted - Single coat structural primer 1.0 to 2.0 mils thick applied to a surface meeting or exceeding SSPC-5P3.
- 5.3 G90 - A galvanized hot dip finish meeting or exceeding the requirements of ASTM A446 and A525.

QUALITY COMMITMENT - GUARANTEED

Every material, coating part and process that is used in your new building is tested to ensure strict compliance with exacting standards. Every supplier is rigorously tested on an ongoing basis. Butler is the only manufacturer in the industry with that kind of commitment to quality.

Butler® Building products are constantly being improved; therefore, the information contained herein is subject to change without notice. Before finalizing project details, contact your nearest Butler Builder® or Butler Manufacturing Company for the latest information.



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