

EverBrace® Wall Restoration System Technical Specifications

Steel Beam:

9' long W6x8.5 ASTM A572 Grade 50
Electrozinc plated per ASTM B633 or
Galvanized per ASTM A123

Section Properties:

$A = 2.52 \text{ in}^2$	$r_x = 2.43 \text{ in}$
$d = 5.83 \text{ in}$	$Z_x = 5.73 \text{ in}^3$
$t_w = 0.170 \text{ in}$	$I_y = 1.99 \text{ in}^4$
$b_f = 3.94 \text{ in}$	$S_y = 1.01 \text{ in}^3$
$t_f = 0.260 \text{ in}$	$r_y = 0.890 \text{ in}$
$I_x = 14.9 \text{ in}^4$	$Z_y = 1.56 \text{ in}^3$
$S_x = 5.10 \text{ in}^3$	

Wall Panels:

20 gauge 3' x 10' 1.5B deck with
nested side-lap, ASTM A653 Grade 50
Pre-galvanized with G60 zinc thickness

Section Properties:

$t = 0.0359 \text{ in}$
$I = 0.219 \text{ in}^4/\text{ft}$
$S = 0.23 \text{ in}^3/\text{ft}$

Top Track:

10 feet long 14 gauge ASTM A653
Grade 50 bent plate
Electrozinc plated per ASTM B633 or
Galvanized per ASTM A123

Section Properties:

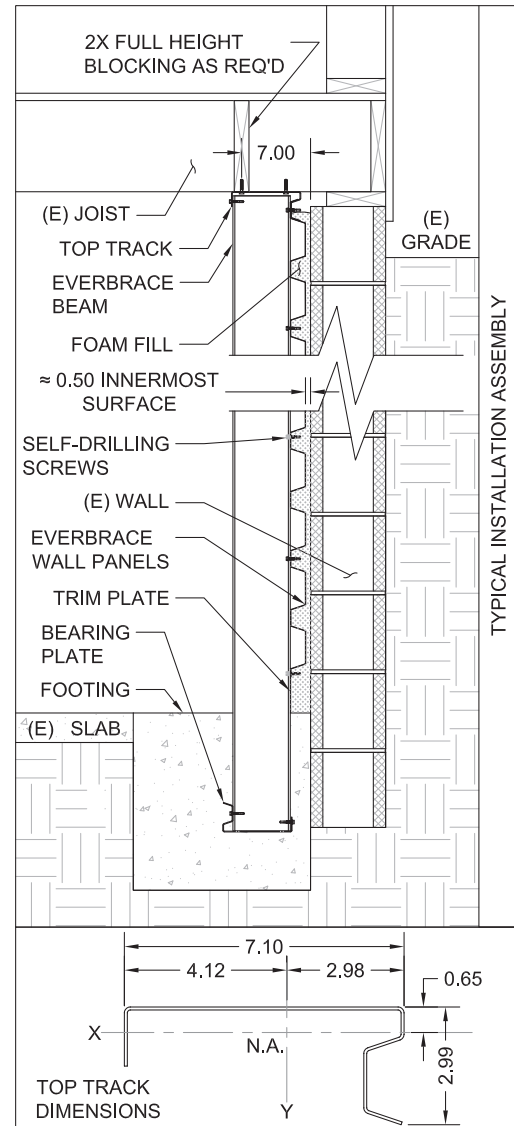
$A = 0.94 \text{ in}^2$	$Z_x = 0.580 \text{ in}^3$
$t = 0.0747 \text{ in}$	$I_y = 5.87 \text{ in}^4$
$I_x = 0.752 \text{ in}^4$	$S_y = 1.42 \text{ in}^3$
$S_x = 0.321 \text{ in}^3$	$Z_y = 2.06 \text{ in}^3$

Trim Pieces:

20 gauge ASTM A653 Grade 33 L2x2 and L3x3 angles
8 feet long and 8" plate 4 feet long
Electrozinc plated per ASTM B633

Optional Bottom Bracket Assembly:

3/8" ASTM A572 Grade 50 L-shaped bent plate
1.75" x 1.88" x 7.25" long with holes for concrete anchors
(2) $\varnothing 1/2"$ x 3" concrete screw anchors
Allowable horizontal shear load = 4.0 kips
(minimum slab thickness of 3.50" and a
minimum concrete strength of 2,500 psi)



Self-Drilling Screws:

#12 x 1-1/4" long zinc plated with 12-24 thread, 5/16" hex head, and #5 drill point

Polyurethane Foam Fill:

HandiFoam E84 HFO SPF
Density = 1.75 lb/ft³ (free-rise) and 2.11 lb/ft³ (in-place)
R-Value (1.0" thickness) = 6.1
Compressive Strength = 24.2 psi
VOC Content = 37 g/L when mixed as intended
ASTM E84 Fire Rating (2.0" thickness) = Class A
Flame Spread Index = 5
Smoke Developed Index = 450

Tested in combination with the EverBrace Wall Restoration System in accordance with NFPA 286.