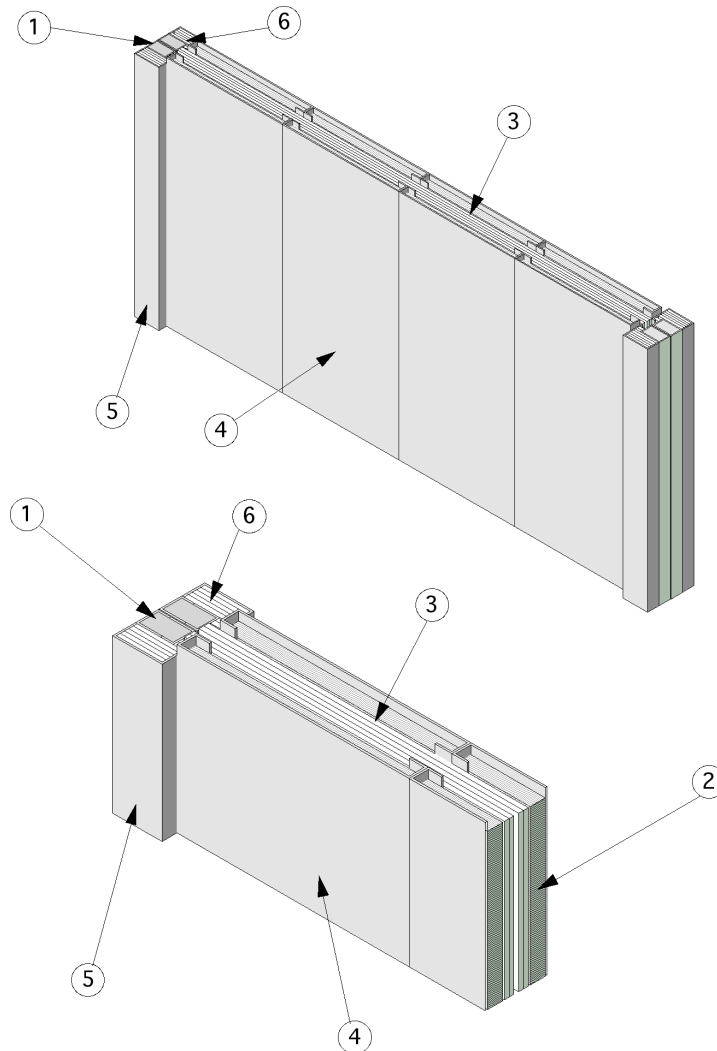

Design No. BW 301

BEARING WALL

Assembly Rating: 4 hr

Max. Load 5350 lbs/ft. – 100% of Design Load



1. STEEL COLUMNS: Min. 3 x 5 in. two, structural steel tubes with min. 1/4 in. wall thickness placed back-to-back at each end of the wall and filled with gypsum powder.
2. CAVITY INSULATION: Unfaced mineral fiber batt insulation having a nom. 2 in. thickness, 8 pcf density and friction fit between the metal stiffeners.
3. WALLBOARD, GYPSUM: On each interior face of the opposing insulated metal panels, two layers of 1/2 in. Type C gypsum wallboard is applied vertically to the panel

and secured at the panel junctions with 1/4 - 20 x 2 in. long self tapping hex head screws, max. 33 in. o.c. and max. 10.5 in. from ends. Where gypsum wallboard seams occur the butted seams of the gypsum wallboard panels are held together using a 3 in. x 5 in. plate of 20 GA steel on the insulation side of the wallboard, and 1/4 - 20 x 2 in. long self tapping hex head screws placed on each side of the seam, screwed through the wallboard and the steel plates on the back side. The top and bottom perimeter of the gypsum

Fire-Resistant Walls

wallboard is supported with a 16 GA steel J-Track (not shown).

4. STEEL PANELS: Panels are constructed of 11 GA steel and are welded to the perimeter framing (1). Panel sections are 30-3/4 in. wide and are formed with nominal 2 in. legs and flanges that the gypsum wallboard (3) is attached to. The 2 in. legs form a pan with a 2 in deep cavity that houses the mineral fiber cavity insulation (2).
5. CORNER PANELS: Corner panels are constructed of 11 GA steel and house the layered gypsum wallboard (6) that protects the metal columns (1).
6. WALLBOARD, GYPSUM: Min. 1/2 in. thick gypsum wallboard is layered over

metal columns at least 2 in. thick, confined by the steel corner panels.

7. STEEL CROSS MEMBERS: (Not Shown) Constructed of min. 2 x 5 in. structural steel tubes with min. 1/4 in. wall thickness placed back-to-back and horizontally at the top and bottom of the wall frame.

Listed Manufacturer:

Mark Correctional Systems

Division of Kullman Industries, Inc.

Building Modules

Prefabricated Units

Modular Steel Jail Cells