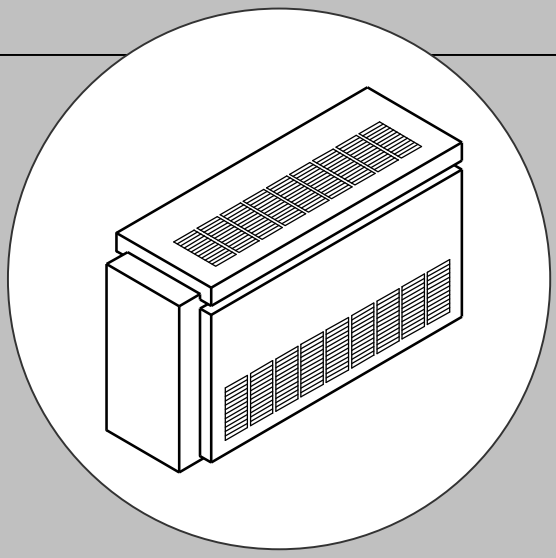
Mullion

Catalog

SIGMA CORPORATION



MANUFACTURERS

OF HYDRONIC

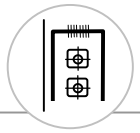
HEATING

PRODUCTS

www.sigmaproducts.com Tel: (905) 670-3200 Fax: (905) 670-3822

Rev 3

Table of Contents



MULLION ENCLOSURE OVERVIEW

Sigma mullion enclosure provides an exciting architectural alternative to standard wallfin radiation. With its modular design and inherent strength, mullion enclosure lends itself to commercial and institutional marketplace applications like office towers, universities, colleges, and hospitals.

The flexibility of Sigma mullion enclosure permits architects and mechanical design engineers to accommodate many of their design requirements. Sigma mullion enclosure is essentially a parametrically designed custom enclosure, allowing the customer to select various design features such as style, height, depth, finish, inlet and outlet configurations and material.

With this inherent flexibility, Sigma mullion enclosure has found many applications in addition to wallfin radiation. Today, Sigma mullion enclosure is often used to address architectural fancoil enclosures, induction unit enclosures, PTAC enclosures, and blower coil enclosures.

MULLION ENCLOSURE COMPONENTS

The basic components comprising typical mullion enclosure are illustrated in figure 1. This figure depicts a two piece, wall mounted, mullion enclosure with an open inlet and a stamped louver outlet. In this illustration, the front cover is removable by hand.

SOME OF THE COMPONENTS INCLUDE:

ELEMENT & BRACKETS. These components represent the conditioning source and could be replaced with a fancoil, an induction unit(s), or other equipment that needs to be covered.

ENCLOSURE MULLIONS. These parts include end, wall, center, and corner type mullions. These components provide the support structure for the enclosure panels. In curtain wall applications, the mullions typical line up with the curtain wall vertical mullions. The mullions can be manufactured such that they are recessed with respect to the panels (as shown in figure 1) or flush with the panels.

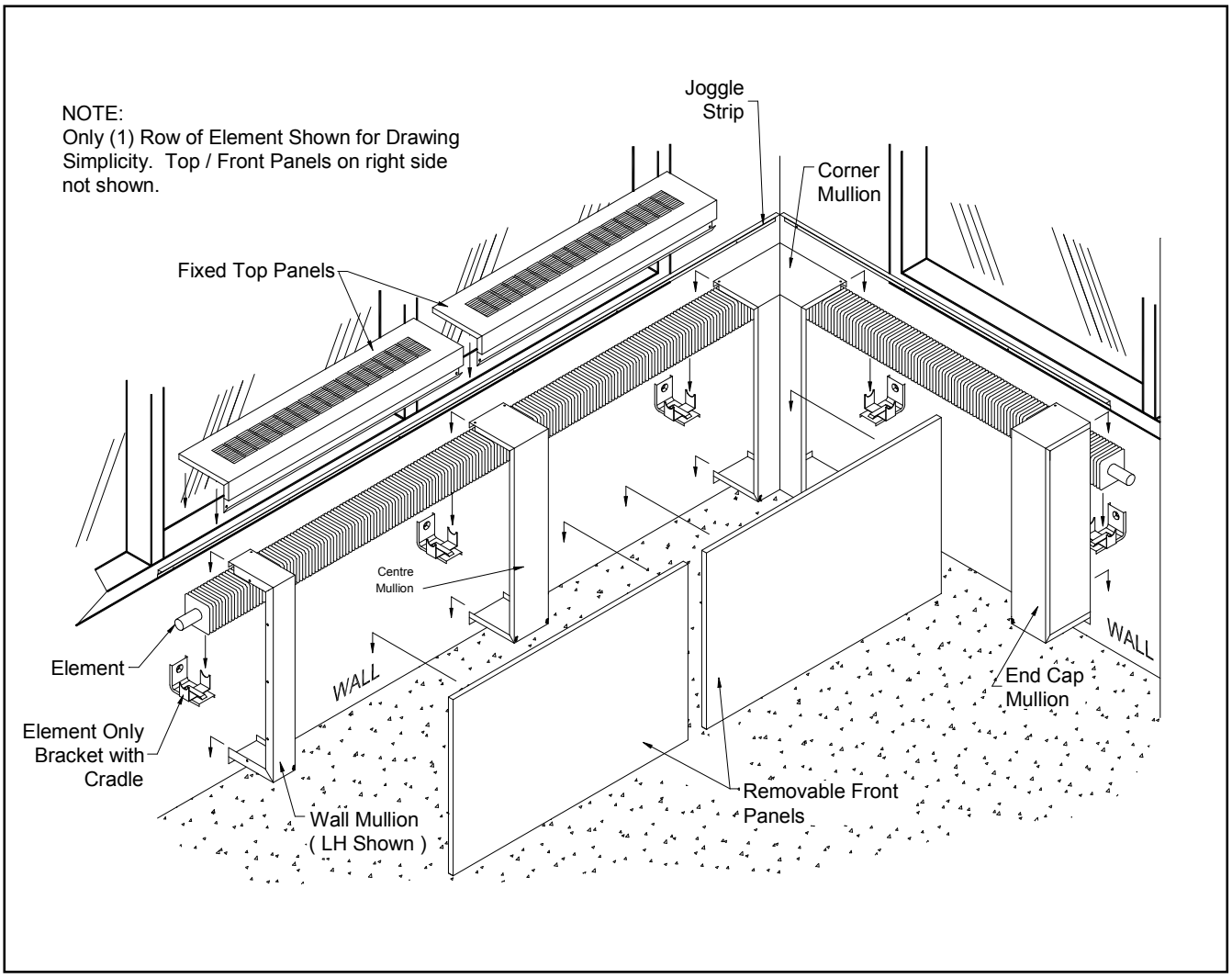
PANELS. The panels represent the most architecturally visible part of the enclosure assembly. Panels can be manufactured with a number of options including 1 or 2 part assembly, various types of inlet and outlet (bargrille, louvered, perforated, etc), optional factory mounted access doors, various types of materials and finishes, different types of fastening, etc.

YOUR APPLICATION

An assortment of mullion enclosure variations have been included in this document as basic references for enclosure illustration. Also included is a ‘starter-kit’ mullion enclosure specification.

At Sigma, we understand that your enclosure requirements may be unique. To discus your project in more detail, get more information about mullion enclosure, or simply find out more about the Sigma Corporation, please contact your local representative or talk to a Sigma customer service representative at (905) 670-3200.

FIGURE 1 WALL MOUNTED MULLION – EXPLODED VIEW



Furnish and install where shown on drawings, Sigma Corporation finned-tube assemblies as described in this specification. Manufacturer must be IBR approved.

ENCLOSURE

The mullion enclosure shall be provided as shown on drawings. Enclosure shall be ***XX*** inches [***YY*** mm] tall and ***XX*** inches [***YY*** mm] deep.

Enclosure shall be manufactured from ***{18Ga, 16 Ga, or 14Ga } {steel, embossed steel pattern ZZZZ, brushed aluminum, or stainless steel}*** and finished with a ***{powder coat baked enamel finish, or primer finish suitable for field painting}***. Color shall be ***{selected from manufacturer's standard color charts, or custom as selected by Architect}***.

The mullion enclosure shall be suitably reinforced to withstand a loading of 150 lbs per linear foot [223 kg/m]. The enclosure shall be continuous wall to wall or as shown on the drawings. Enclosure shall be fabricated typical to the window modules with a ***{recessed, or flush}*** joint at the window mullions. ***{<for recessed mullion only> Recessed joint shall have a reveal of XX in [YY mm] and shall align with the window mullions.} {<for flush type mullion only> Flush type mullions shall be XX in [YY mm] and shall align with the window mullions.}***

Enclosure panels and mullions shall be made in sections to match window modules. Panels and mullions shall have a 0.75 inch [19mm] return edge around the perimeter to provide rigidity.

The enclosure covers shall be manufactured in ***{1, or 2}*** pieces as depicted in drawings. ***{<pick one> (1) Cover shall be removable by hand without any tools (2) Covers shall be fastened with {standard fasteners, torx security fasteners, or ¼ turn captive fasteners}.***

The top outlet of the enclosures shall have ***{stamped louver grilles, or aluminum bargrill}*** that extends the entire length of panels.

The inlet of enclosure shall be ***{open, provided with stamped louver grilles, or provided with aluminum bargrill }***.

Manufacturer to provide all accessories (mullion endcaps, trims, corners, hangerstrip, brackets, etc.) to realize project.

In conditions where enclosure is fastened to curtain wall structure, it shall be manufacturer's responsibility to coordinate and obtain approval of method of attachment of enclosure to structure from curtain wall supplier. In multistory curtain wall configurations, special attention shall be given to situations where the enclosure bridges the expansion joint of the curtain wall.

{<optional> Mullion support brackets shall be designed to accommodate sound barrier partitions. Contractor shall provide and install sound barrier partition where shown on drawings.}

ELEMENT

All copper/aluminum-heating elements shall be manufactured with ***{1.25" [32mm], 1" [25mm], or 0.75" [19mm]}*** diameter, seamless copper tubing mechanically expanded into the diameter of the equally spaced ***{4" x 4" [102mm x 102mm], or 4" x 2.75" [102mm x 70mm]}*** aluminum fins spaced 48 fins/foot [160 fins per meter]. The element shall be swaged on one end. Provide support for elements on a minimum of 36" [900mm] centers.

PERFORMANCE

Enclosure-element combination shall provide a minimum capacity of ***XXXX*** BTU/Hr/Ft (***YYYY*** W/m) at ***XXX*** DegF [***YYY*** DegC] Average Water Temperature, ***XXX*** DegF [***YYY*** DegC] Entering Air Temperature.

FIGURE 2 WALL MOUNT– OPEN INLET WITH RECESSED MULLION REVEAL, 1 PIECE

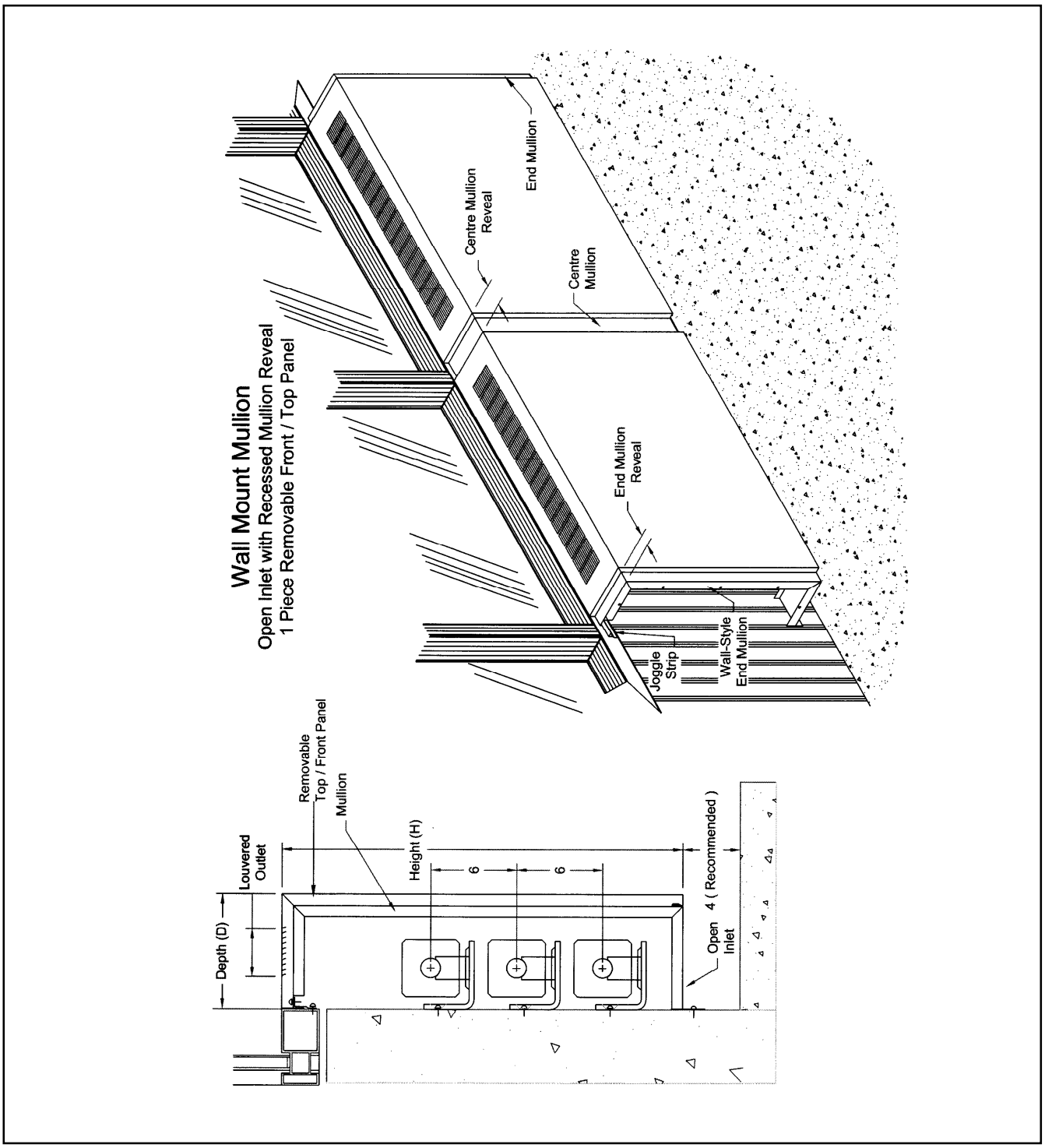


FIGURE 3 WALL MOUNT – OPEN INLET WITH FLUSH MULLION REVEAL, 1 PIECE

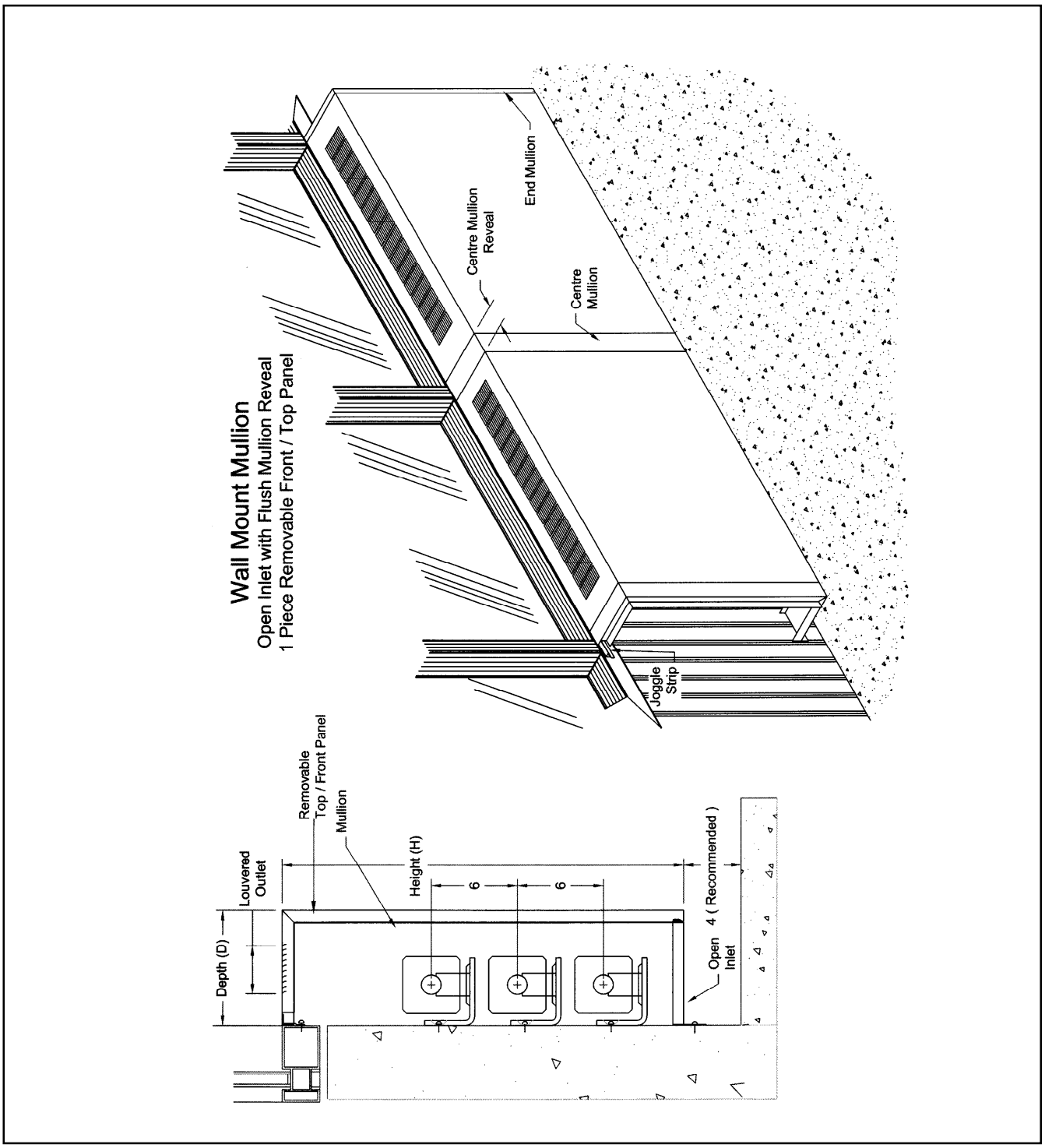


FIGURE 4 WALL MOUNT– OPEN INLET WITH RECESSED MULLION REVEAL, 2 PIECE

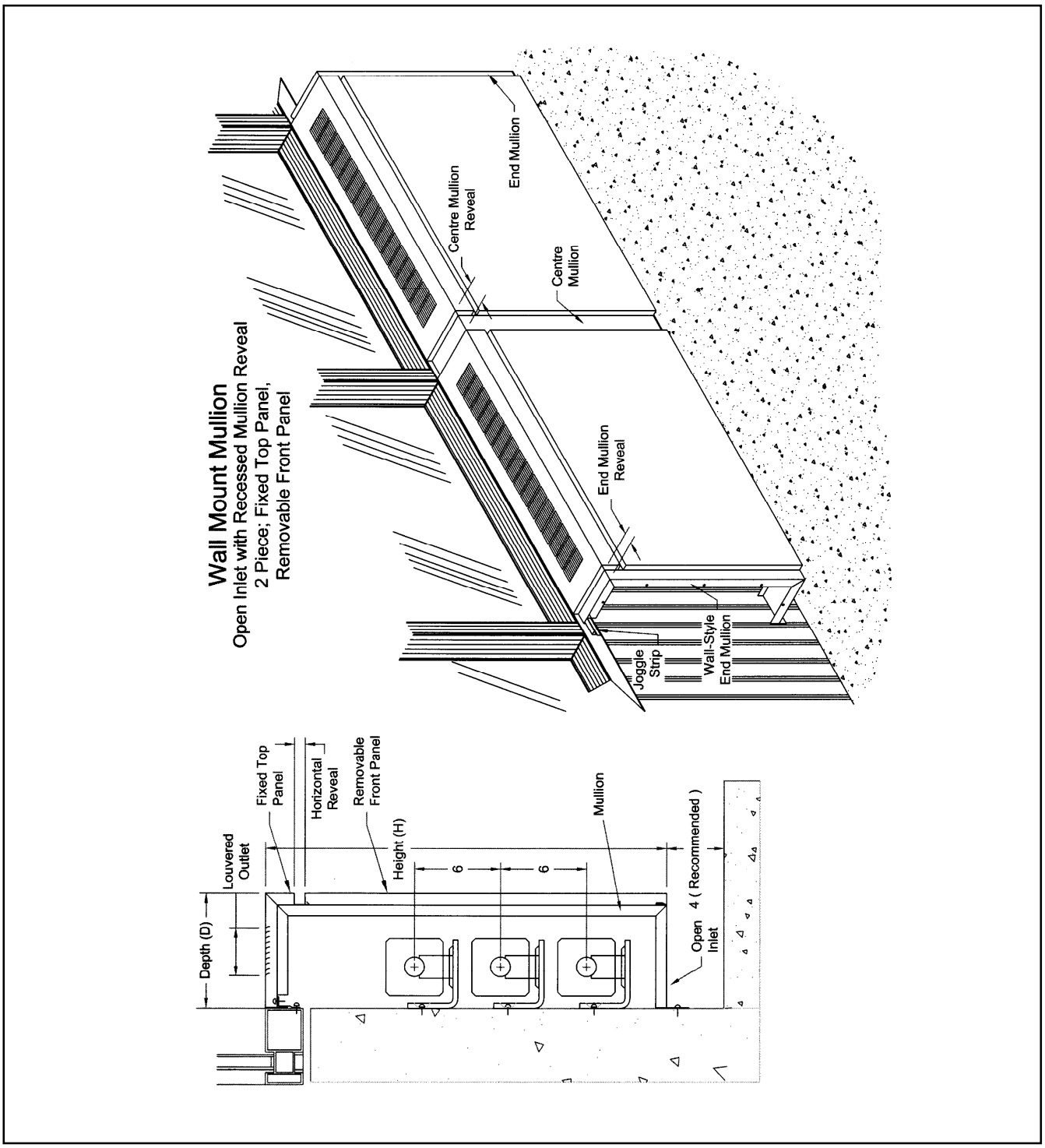


FIGURE 5 WALL MOUNT– OPEN INLET WITH FLUSH MULLION REVEAL, 2 PIECE

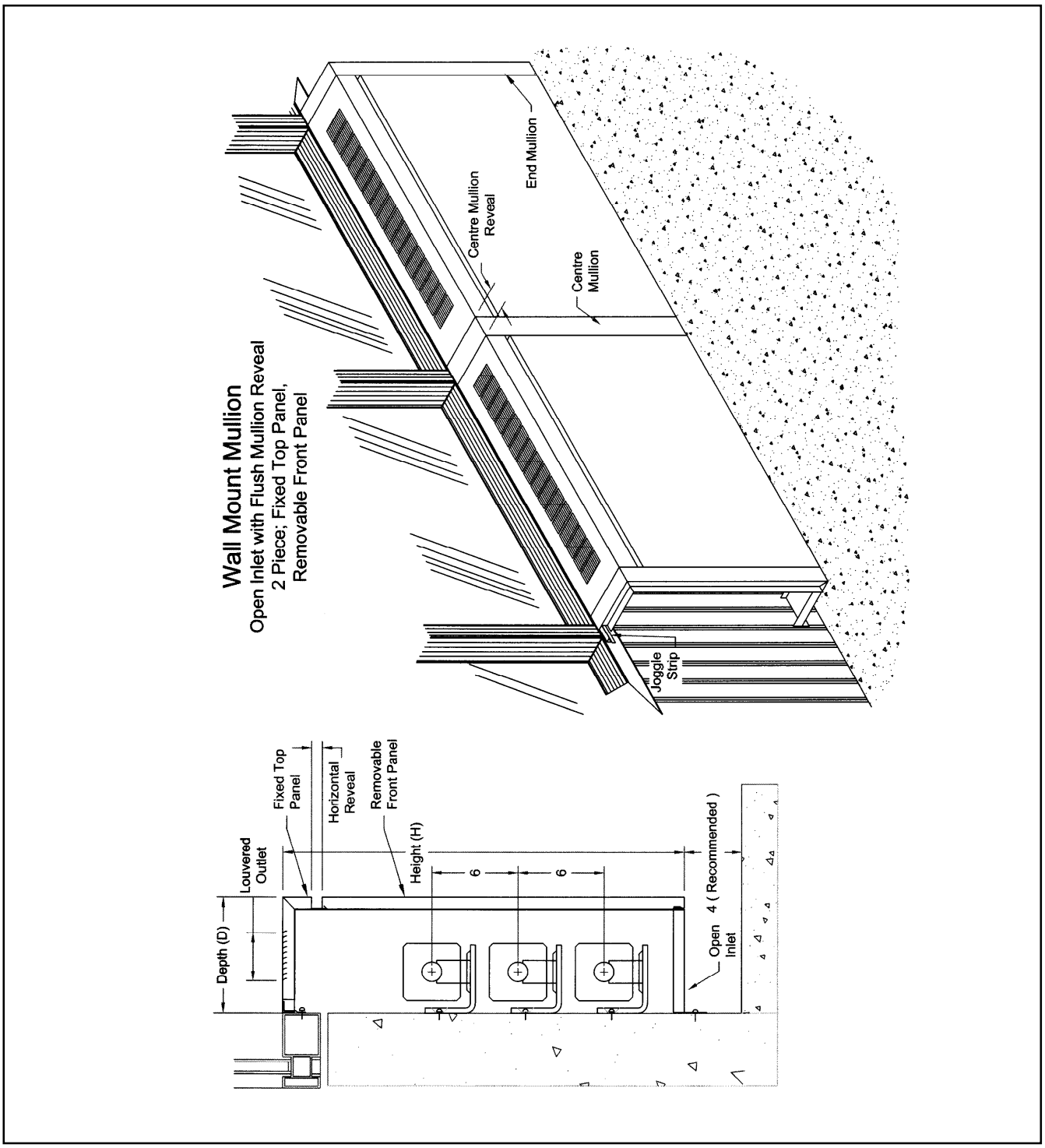


FIGURE 6 FLOOR MOUNTED – LOUVERED INLET WITH RECESSED MULLION REVEAL (1 PIECE)

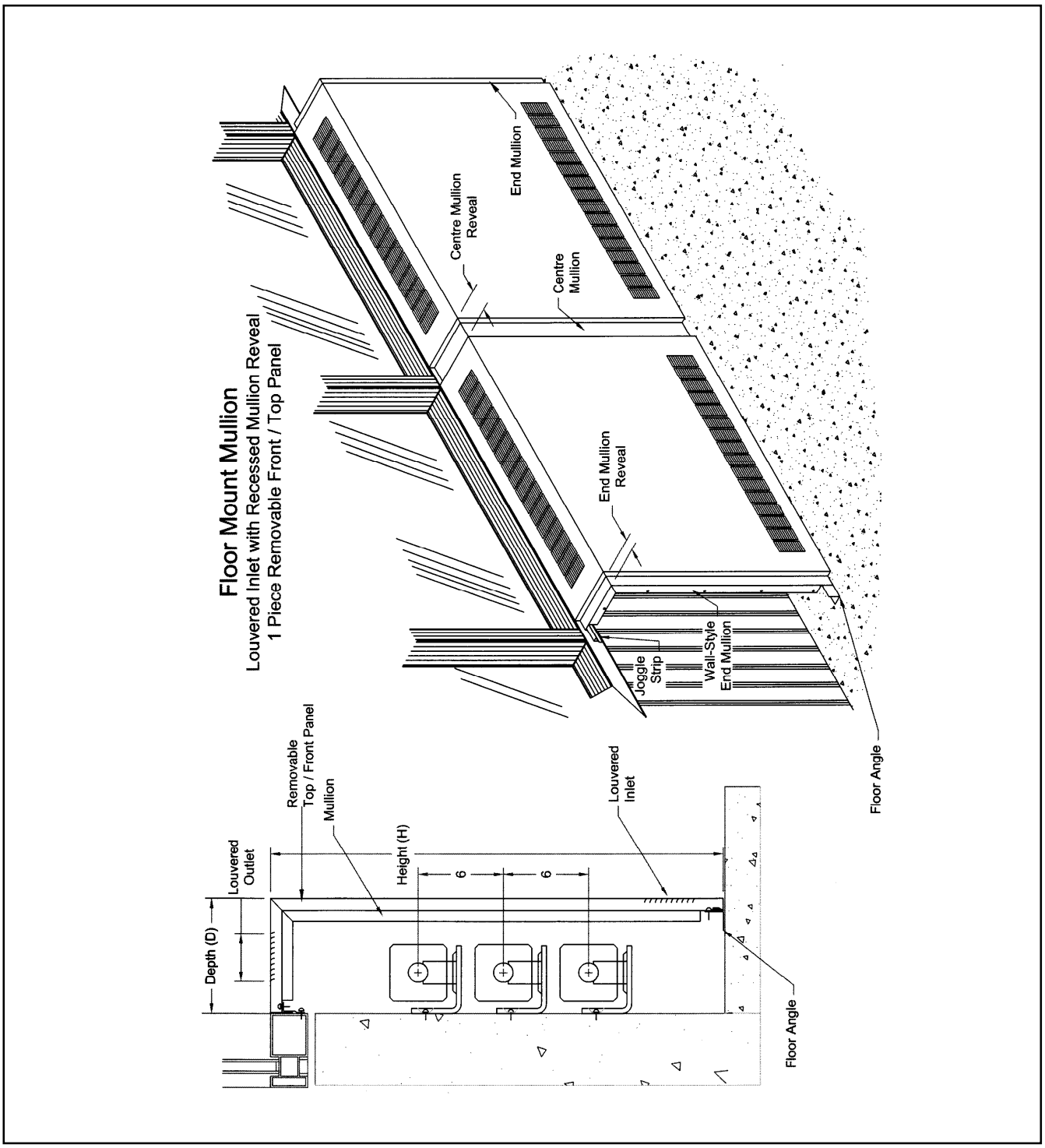


FIGURE 7 FLOOR MOUNTED – LOUVERED INLET WITH FLUSH MULLION REVEAL (1 PIECE)

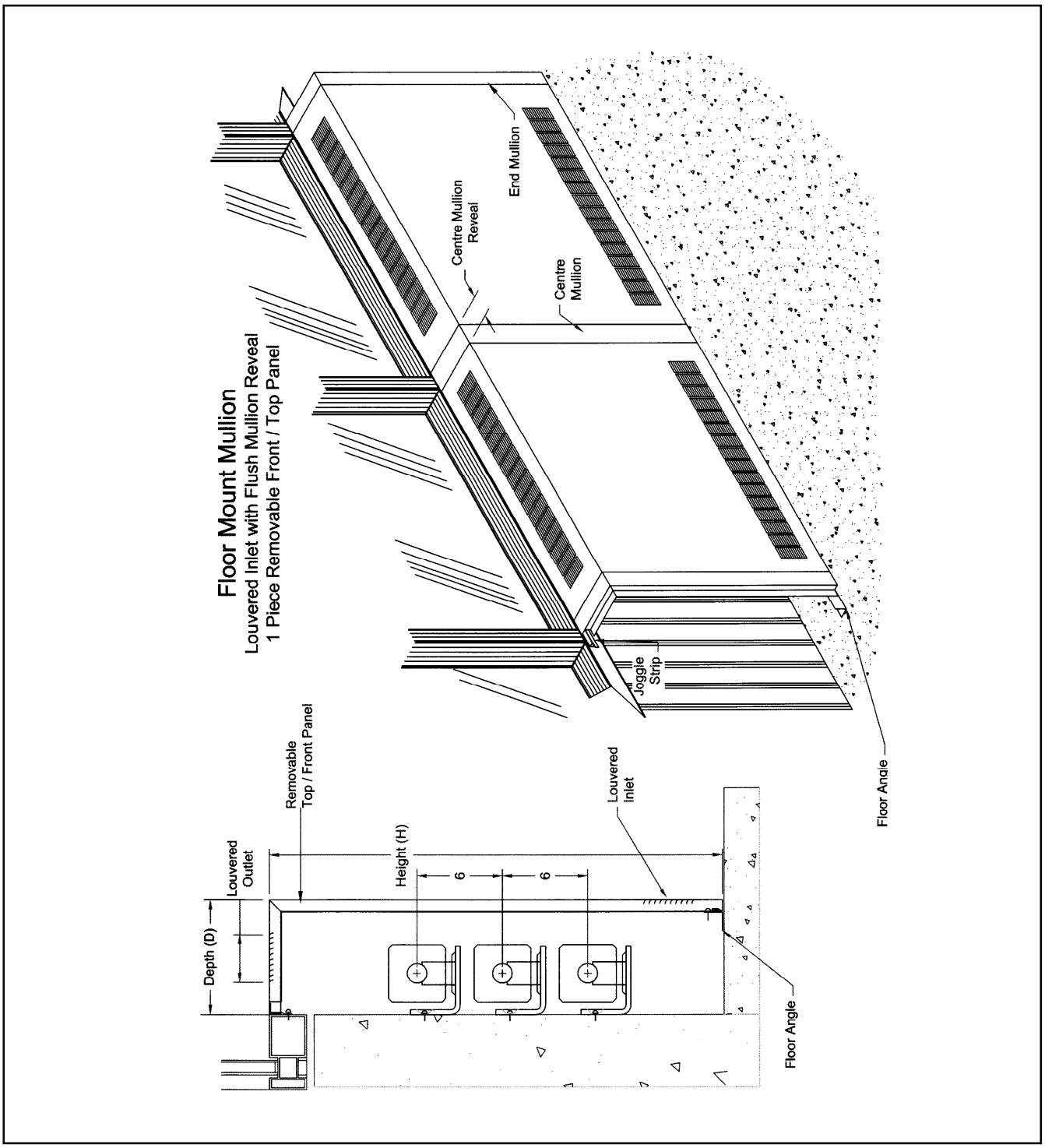


FIGURE 8 FLOOR MOUNTED – LOUVERED INLET WITH RECESSED MULLION REVEAL (2 PIECE)

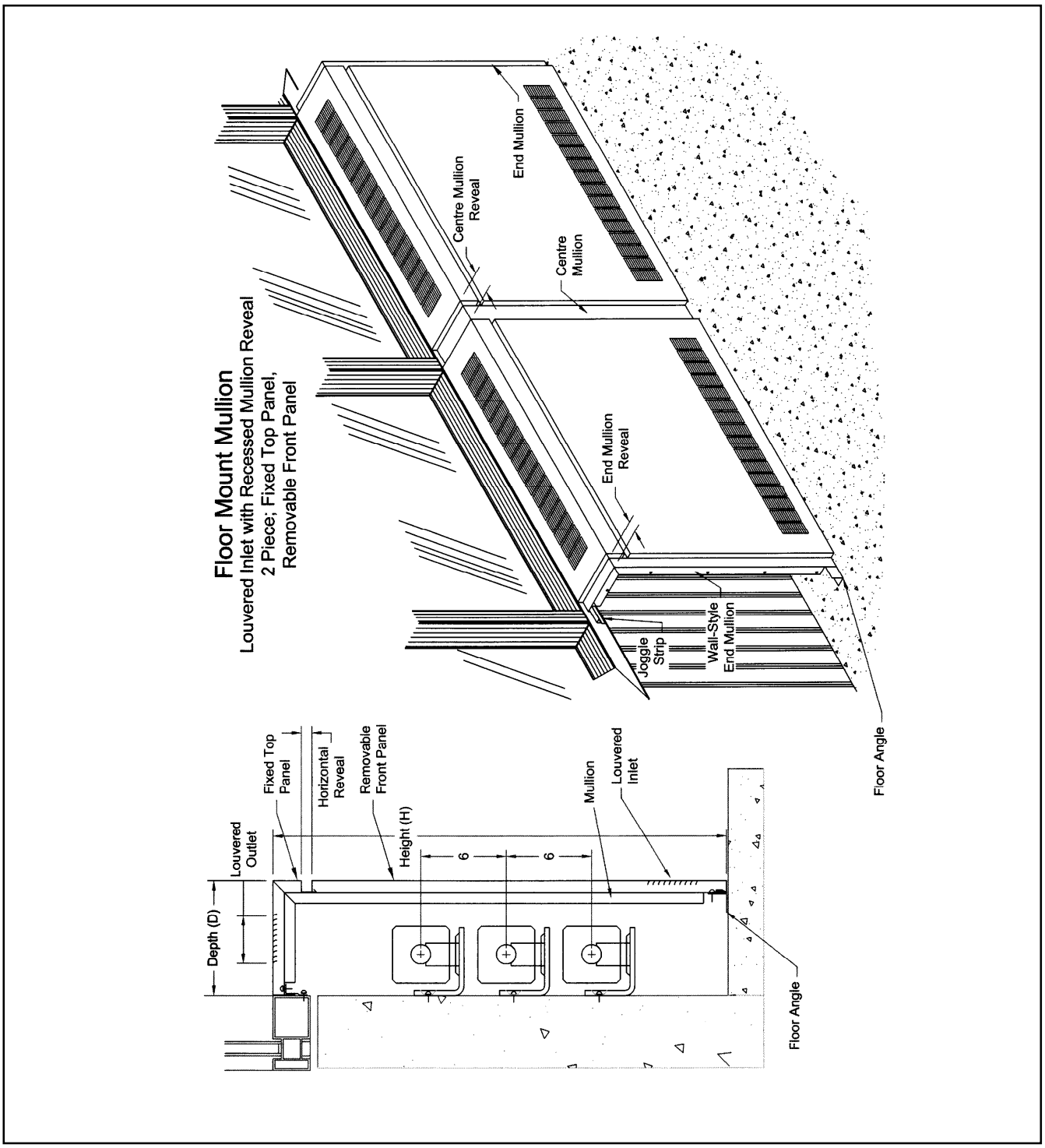


FIGURE 9 FLOOR MOUNTED – LOUVERED INLET WITH FLUSH MULLION REVEAL (2 PIECE)

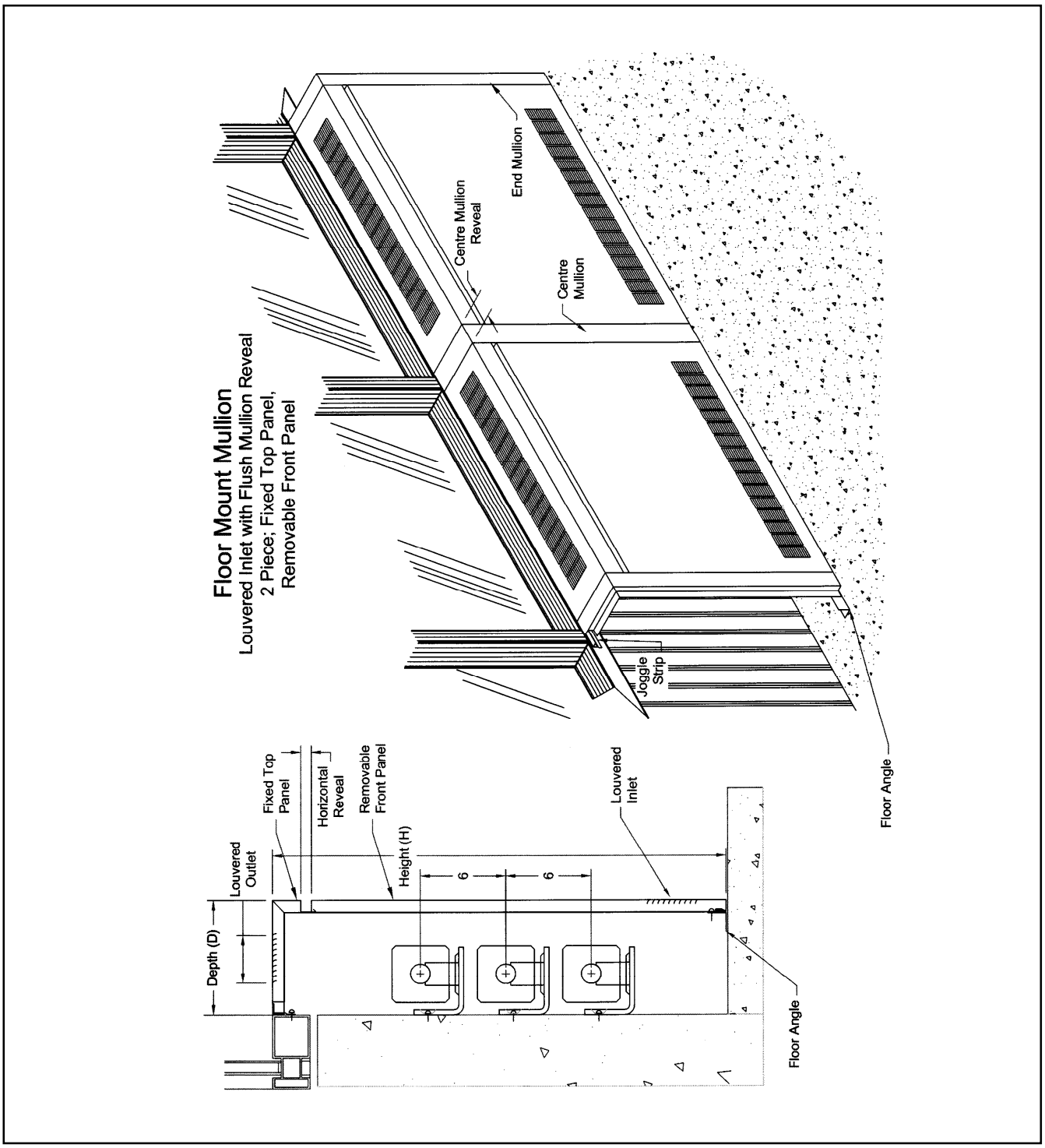


FIGURE 10 FREESTANDING – OPEN INLET, 1 PIECE, REMOVABLE PANEL

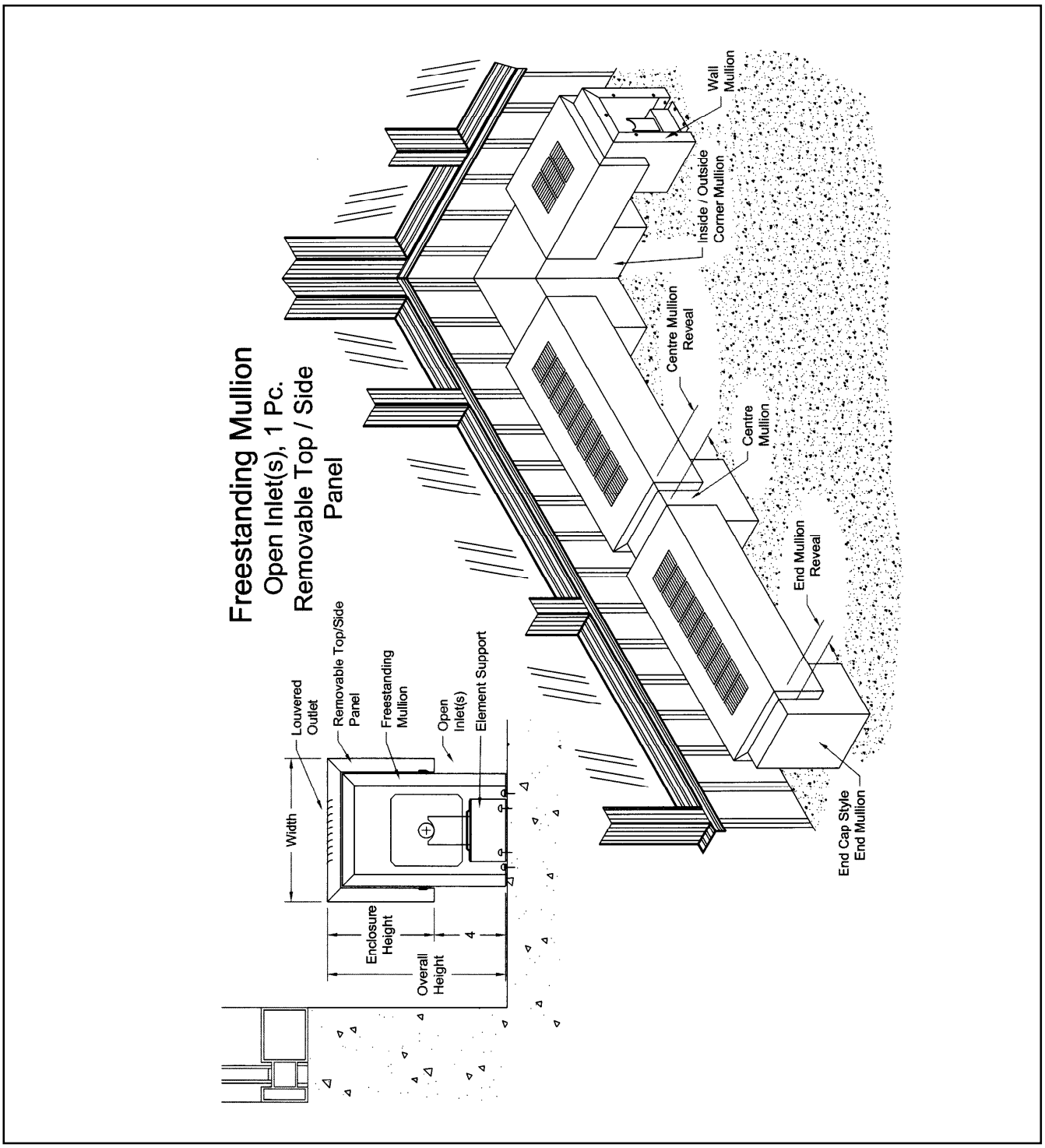


FIGURE 11 FREESTANDING – OPEN INLET, 3 PIECE, FIXED TOP, REMOVABLE SIDE PANELS

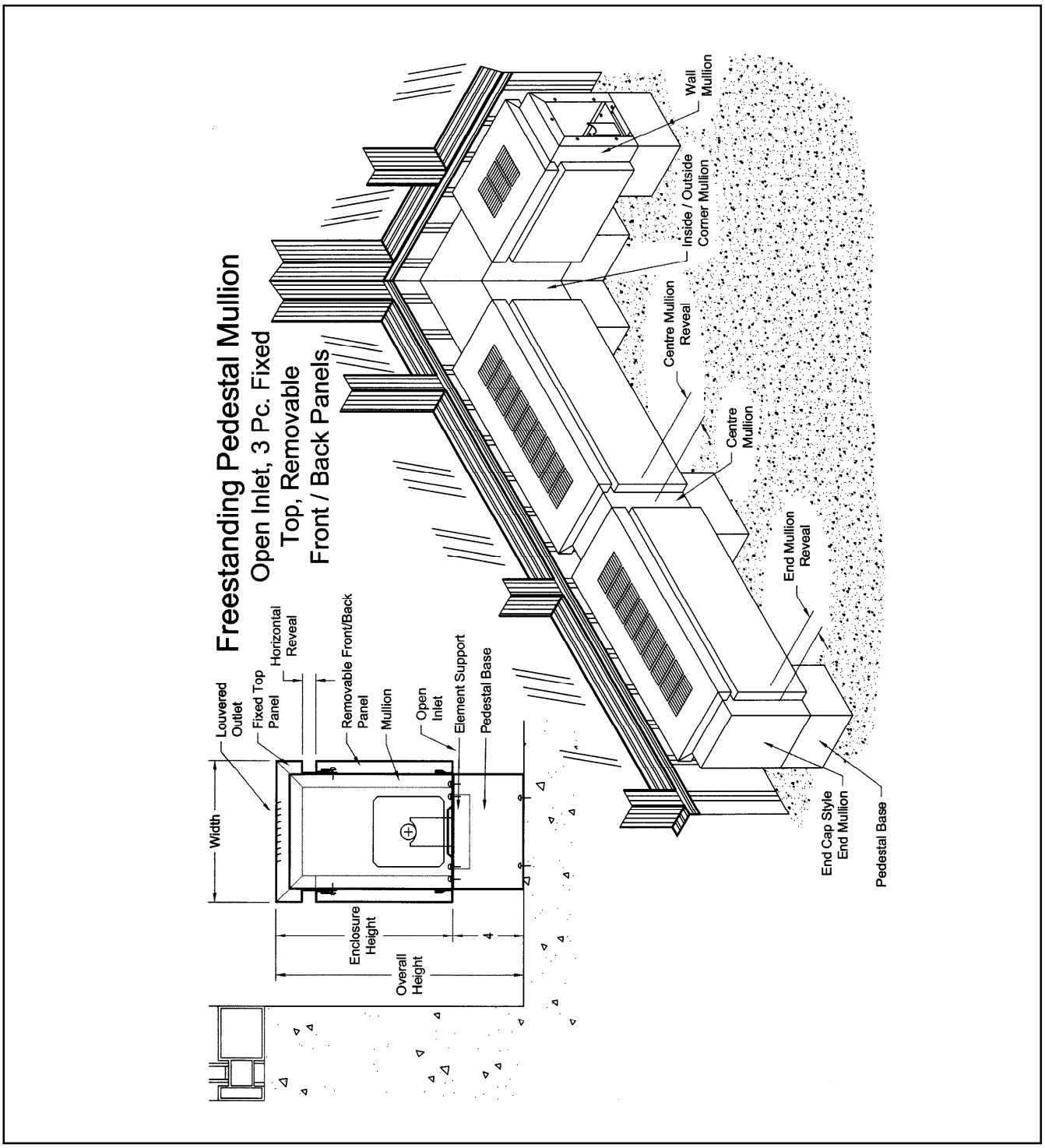


FIGURE 12 FREESTANDING – LOUVERED INLET, 3 PIECE, FIXED TOP, REMOVABLE SIDE PANELS