EPSILON
Savvish Prefabricated Systems

Habitat Infrastructure Experts

EPSILON GROUP

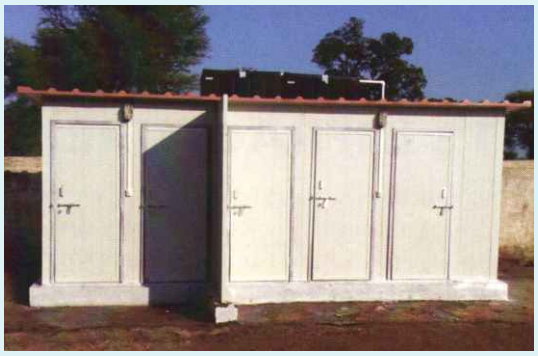
YOUR ONE STOP SHOP FOR ENGINEERING SOLUTION IN

PRE ENGINEERED STEEL BUILDING, PREFABRICATED STRUCTURES
WATER STORAGE, SANITATION, SEWAGE TREATMENT AND ENVIRONMENTAL SOLUTIONS

About us

We are Habitat Infrastructure Experts.
We, at Epsilon Group provide versatile and economical solutions in PEB & Prefabricated Structures, Smart Sanitations Solutions, Localised Sewage Systems & Water Storage Solutions for your project needs.

- PEB & Prefabricated Structures; precise, popular & practical
- Smart sanitation solutions
- Dependable & portable sanitation solutions at your convenience
- Bunk house ideal solution for all site work
- Leaders in water storage solutions
- Environment friendly and cost effective way of treating human waste-Bio digester
- Packaged domestic wastewater treatment plant-underground (FRP)
- FRP anaerobic septic tank for medium and large applications
- Water Storage Solutions
- Environment Solutions

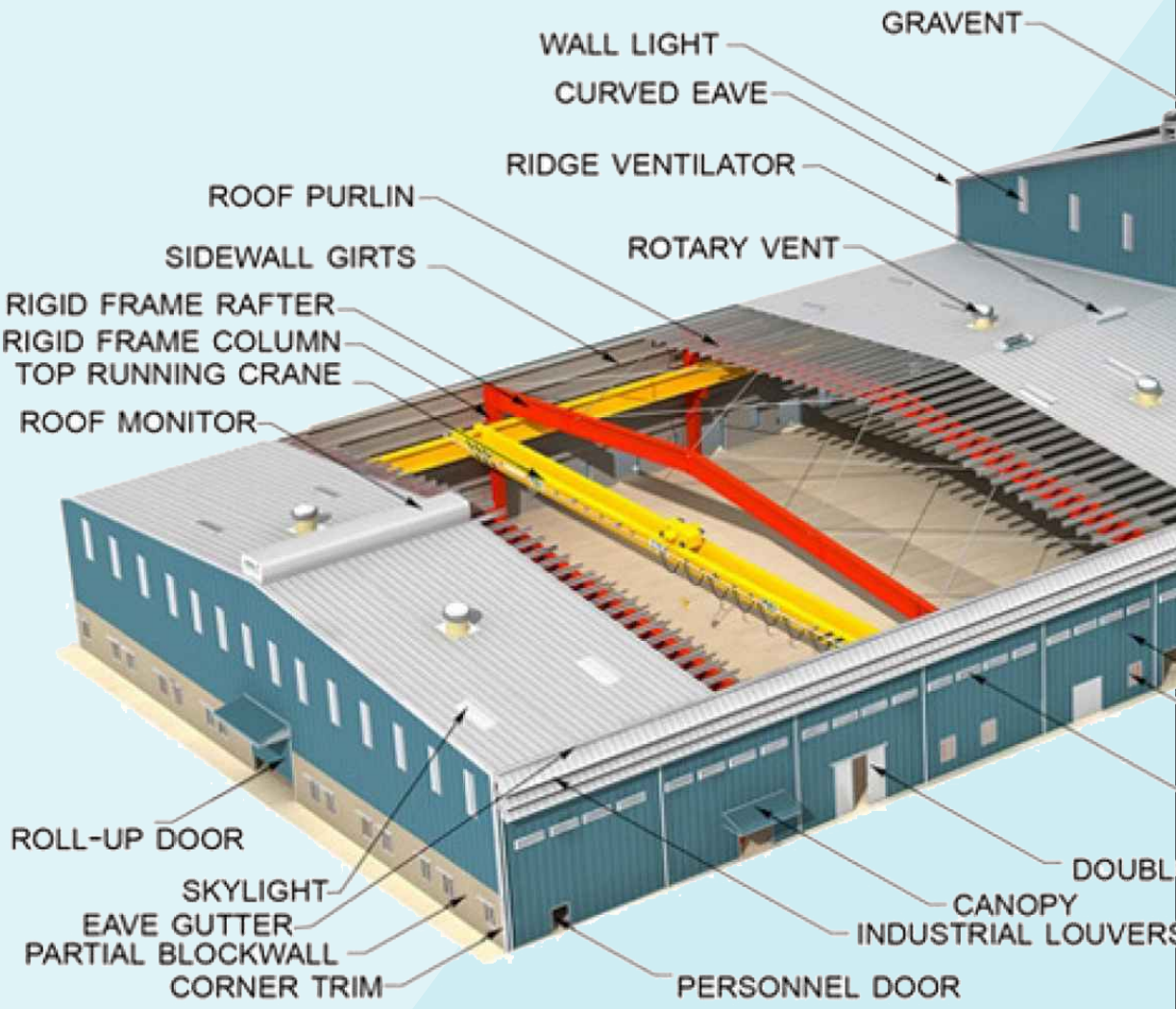


Project Gallery

Epsilon Pre-Engineered Buildings are Currently being used:

- Shopping Malls
- Factories
- Commercial Showrooms
- Hypermarkets
- Office Buildings
- Warehouse
- Convention Centers
- Sports Arenas
- Workshops
- Labor Camps
- Distribution Centers
- Aircraft Hangars
- Poultry Farmhouse

With Epsilon system, strength, value, and Flexibility-are custom-built into every project



Value

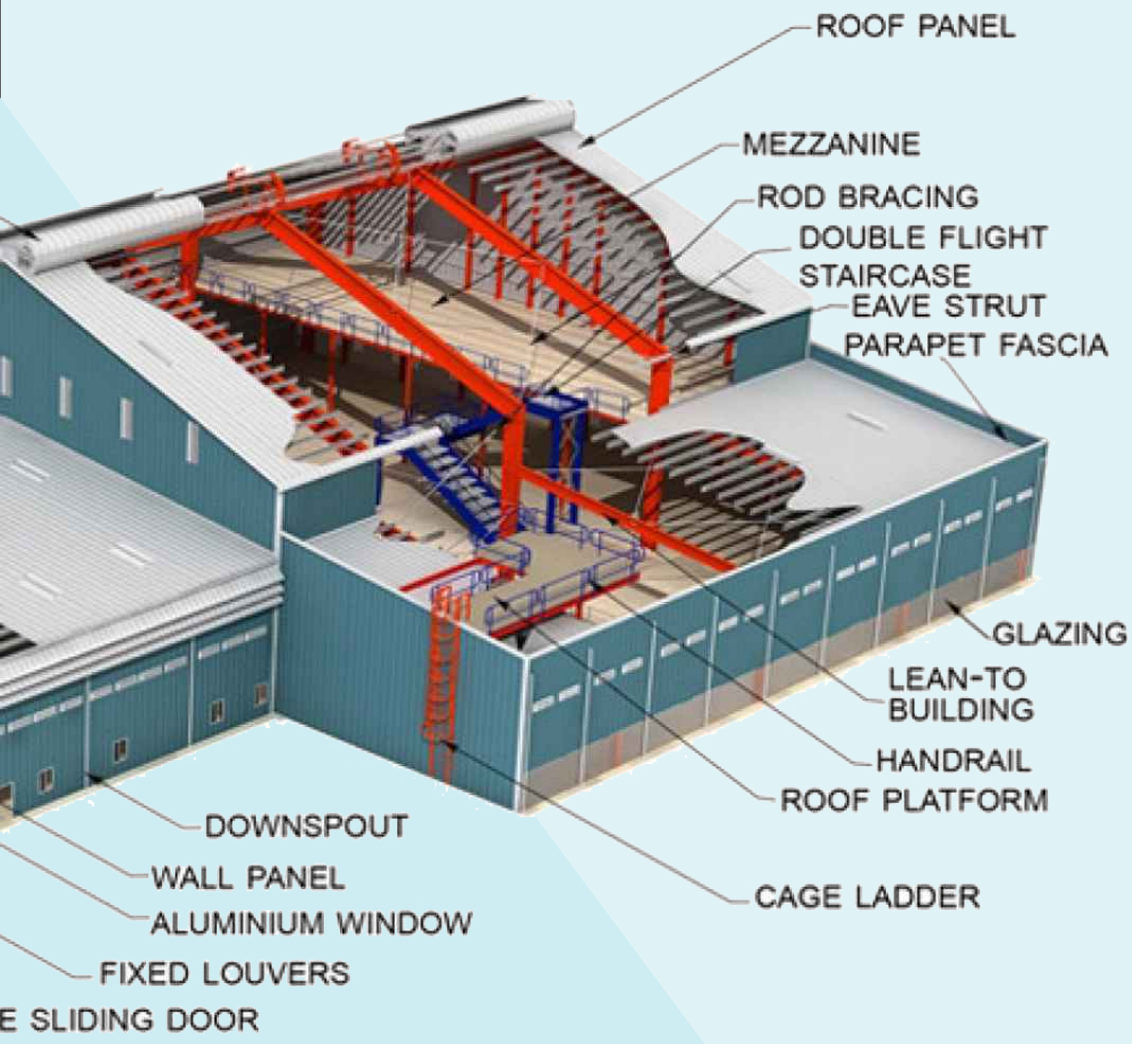
- Lower intial investment
- Lower maintanance cost
- Environmentally friendly as all materials can be recycled.

Strength

Our structures are designed and built to withstand severe weather conditions wind, snow, rainand earthquakes.

Flexibility

- Easy to expand
- Easy to modify
- Design flexibility



Standards we follow based on Specific Client Requirments

- Low Rise Building Systems Manual (MBMA-Metal Building Manufacture's Association Inc.)
- Manual of Steel Construction, Allowable Stress Design (AISC- American Institute of Steel Construction Inc.)
- Cold Formed Steel Design Manual (AISI- American Iron and Steel Institute)
- Structural Welding Code- Steel (AWS- American Welding Society)

Basic Building Parameters

Pre-engineered building are defined by the following basic parameters: Building Width, Length, Height, Roof Slope, End Bay L;ength, Interior Bay Length and Design Laods.

Building Length

Building Length is the distance between the outside flanges of endwall columns in opposite endwalls. It is a combination of several bay lengths.

Building Height

Building height is the eave height, eave height is the distance from the finished floor level to the top of the eave strut.

Building Width

The building width is defined as the distance from outside of eave strut of one sidewall to outside of eave of the opposite sidewall.

Roof Slope (x/10)

This is the angle of the roof with respect to the horizontal. The most common roof slopes are 0.5/10 and 1/10. Any practical roof slope is possible.

Interior Bay Length

This is the distance between the center lines of two adjacent interior main frame columns. The most common bay lengths are 6, 7.5 and 9 meters. Any bay length is possible up to 15 meters.

Design Loads

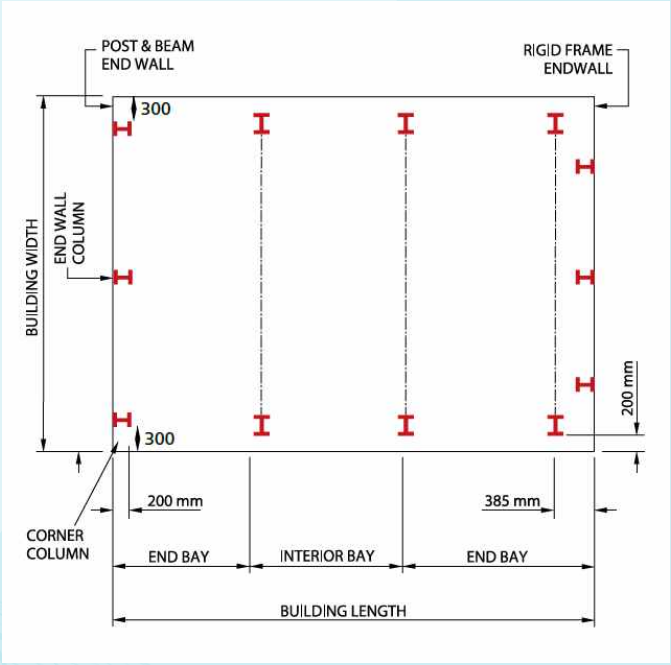
Unless otherwise specified, Epsilon's Pre-Engineered Buildings are designed for the following minimum loads:

Design parameters of snow loads, earthquake loads, collateral loads, crane loads or any other loading condition must be specified when requesting a quotation

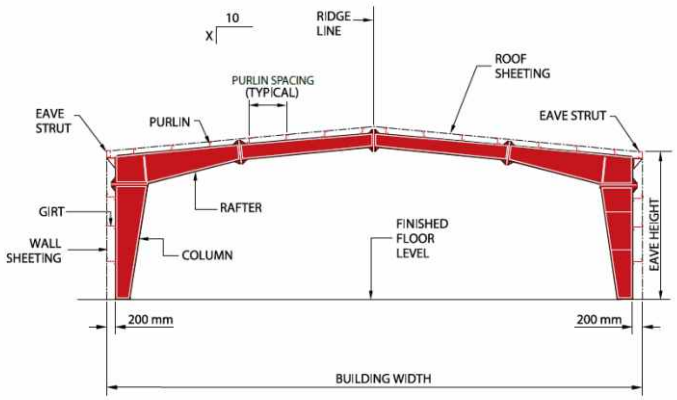
Loads are applied in accordance with American codes and standards applicable to pre-engineered buildings unless otherwise requested at the time of quotation.

Roof Live Load: 0.57 kN/m2

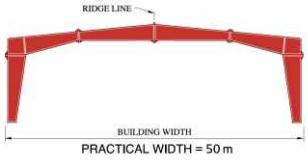
Design Wind Speed: 110 km/h



Primary Framing Systems

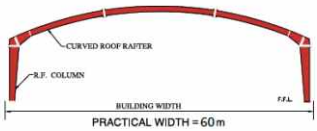


Clear Span (CS)



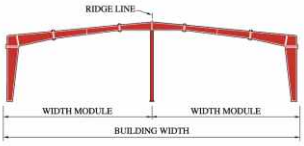
PRACTICAL WIDTH = 50 m

Arched Clear-Span(CS)



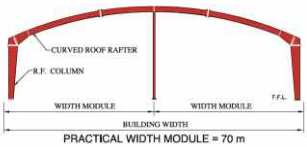
PRACTICAL WIDTH = 60 m

Multi-Span "1" (MS-1)



PRACTICAL WIDTH MODULE = 70 m

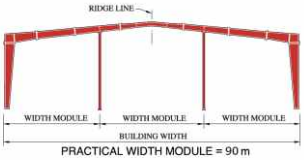
Arched Multi-Span (AMS-1)



PRACTICAL WIDTH MODULE = 70 m

More Multi-Spans are possible (AMS-2, AMS-3,...)

Multi_Span "2" (MS-2)

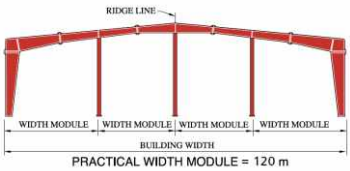


PRACTICAL WIDTH MODULE = 90 m

Single Slope (SS)

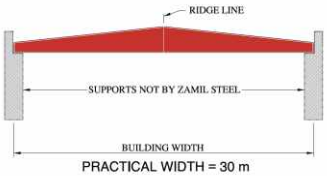
PRACTICAL WIDTH = 50 m

Multi-Span "3" (MS-3)



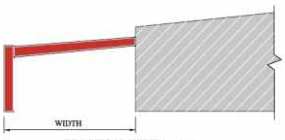
PRACTICAL WIDTH MODULE = 120 m

Roof System (RS)



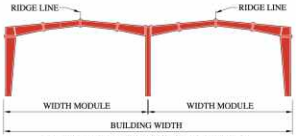
PRACTICAL WIDTH = 30 m

Lean-To (LT)



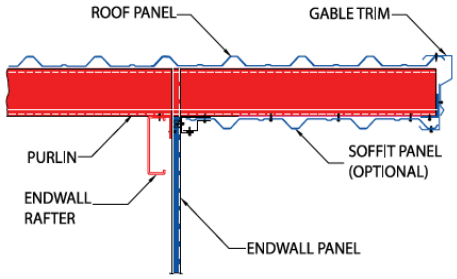
PRACTICAL WIDTH = 24 m

Multi-Gable (MG)

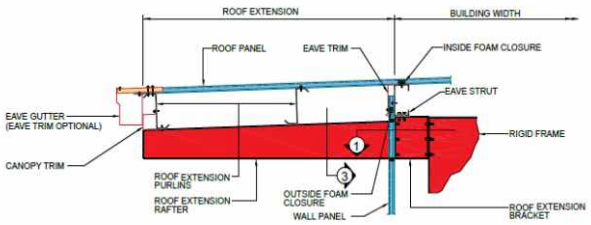


PRACTICAL WIDTH MODULE = 80 m

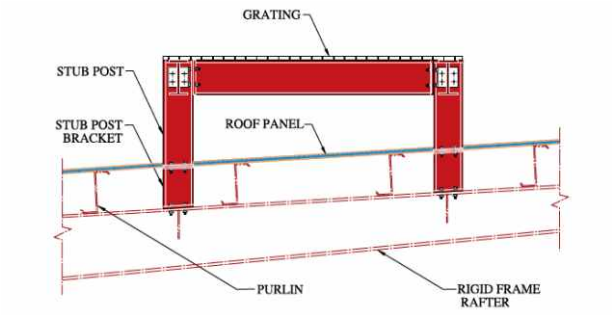
Endwall Roof Extension



Sidewall Roof Extension

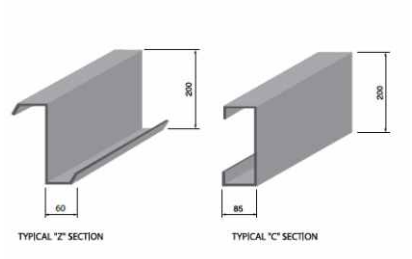


Roof Platform



Secondary Members

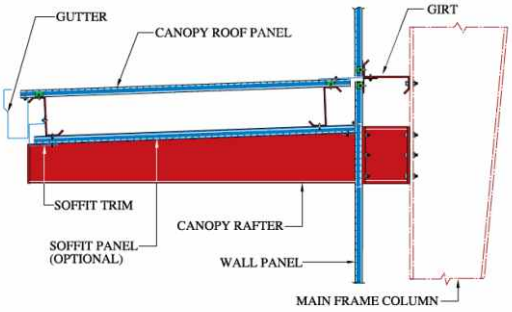
Minimum Yield Strength is 34.5 kN/cm2



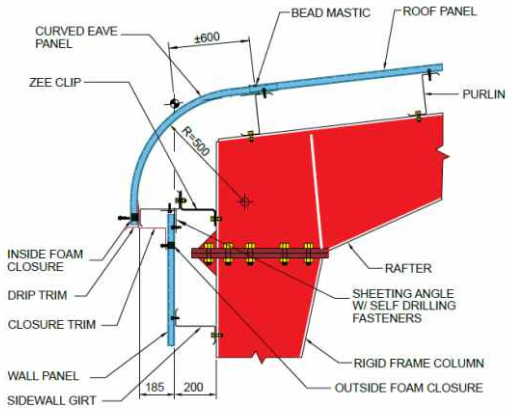
High grade steel conforming to ASTM A607 Grade 50 or equivalent, available in 1.5mm, 1.75 mm. 2.0 mm, 2.25 mm, 2.5 mm and 3.0 mm thickness. Factory painted with a minimum of 35 microns(DFT) of corrosion protection primer, or pre-galvanized finish.

Subsystems

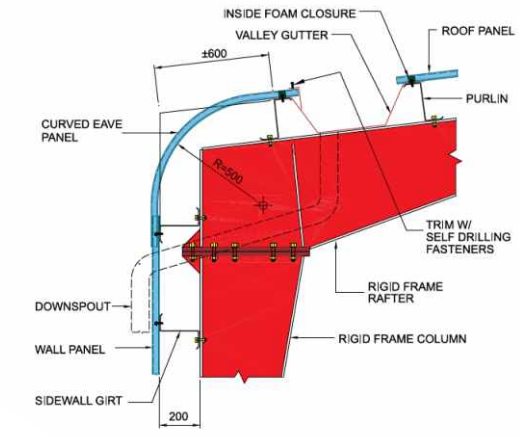
Canopy



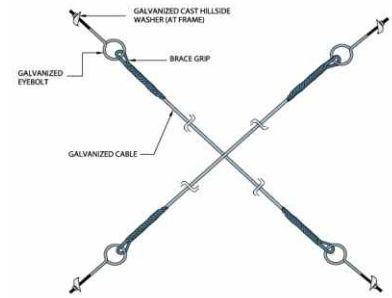
Curved Eave with Projection (without valley gutter)



Curved Eave without Projection (without valley gutter)



Bracing Systems

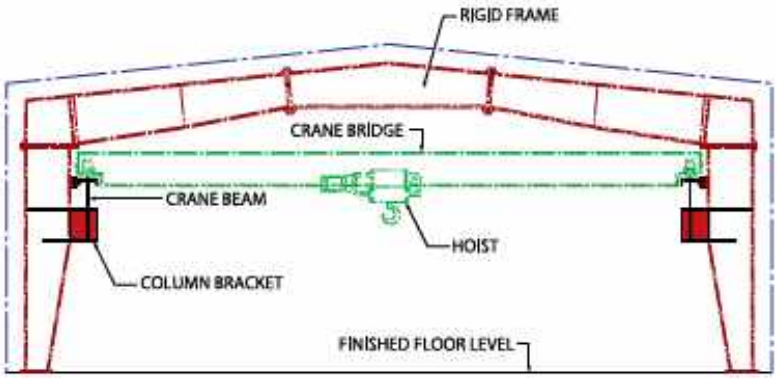


The system shown is cable bracing, manufactured fron ASTM A 475 extra high strength galvanized strands.

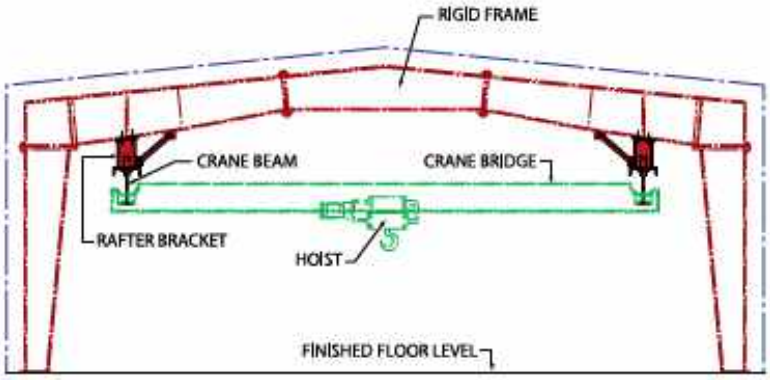
Crane Systems

For buildings that require a crane systems, Epsilon Supplies the column or rafter brackets. The crane runway beams for top-running and under-running crane systems will be supplied by Epsilon. For mono-rail crane systems the runway beam is supplied by the crane supplier. The customer needs to supply complete crane system detail, data and supplier name, for the accurate design and estimation of all crane supporting buildings.

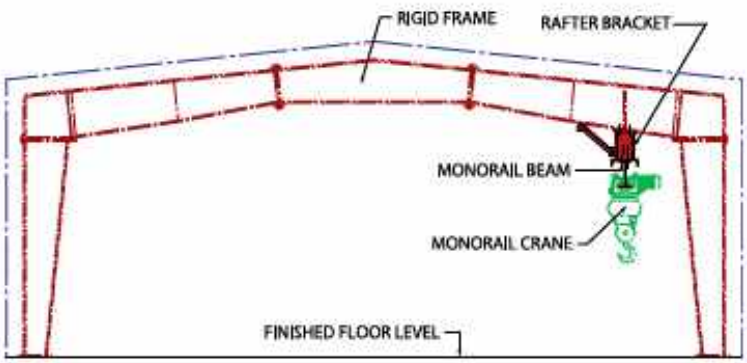
Top Running Crane



Underhung Crane

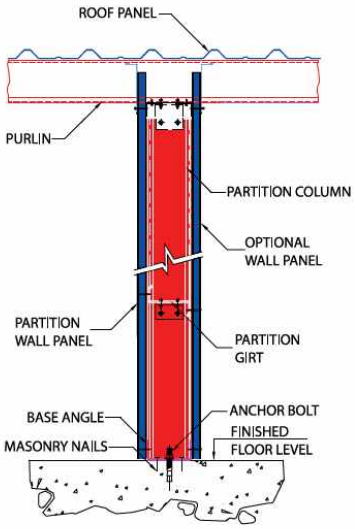


Monorail Crane

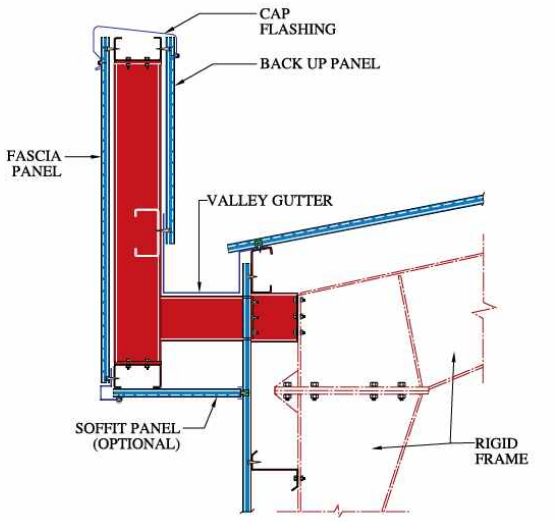


Structural Subsystems

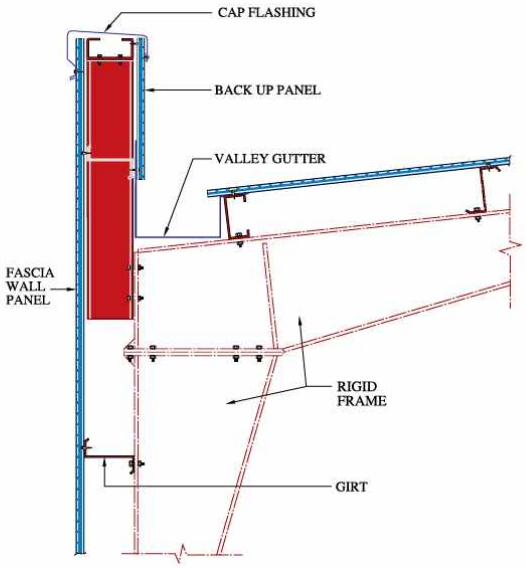
Transverse Partition



Vertical Fascia with Back Up panel and Valley Gutter

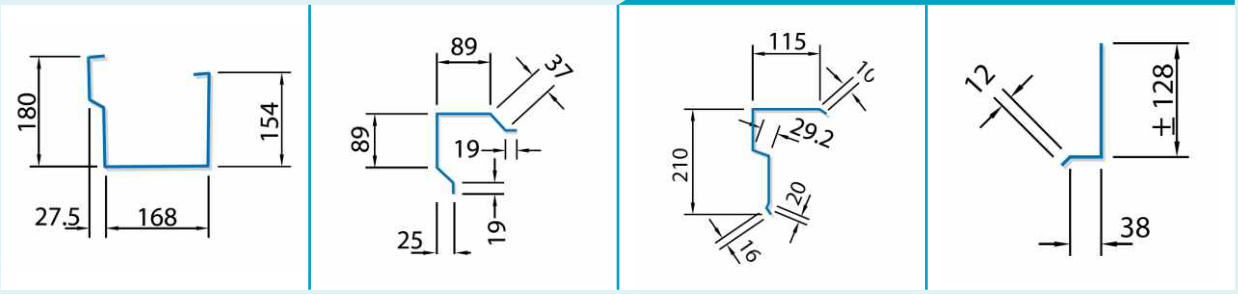


Parapet Fascia



Building Accessories

Flashing Trims



Fixed Louver

Roof Skylight

Insulation

Wall Light

Turbine Ventilator

Ridgevent

Mezzanine Systems

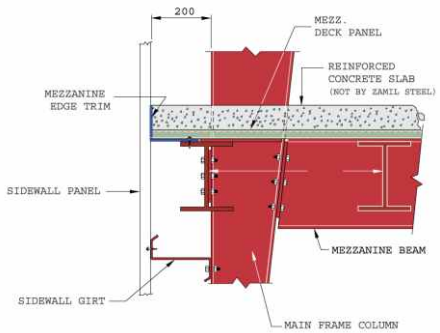
The Standard Epsilon mezzanine framing system consists of a steel deck supported by joista framed onto main mezzanine beams. The main beams may also be supported by intermediate columns if dictated by design loads. The top flange of the joists fits immediately below the top flange of the primary beams.

Applied floor loads, such as dead, live and collteral loads along with mezzanine column spacing, can affect the economy of a mezzanine system. Our Epsilon representative nearest to you can help you to' determine the most economical mezzanine design and column spacing for you project.

Unless otherwise specified, the primary mezzanine beams should run across the width of the building parallel to the main frame rafters. Joists should run parallel to the roof purlins along length of the building.

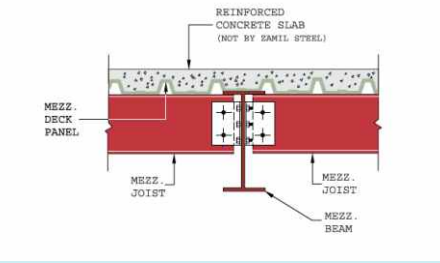
Multi-level mezzanine, including features such as interior equipment platforms, catwalks, floor openings and staircases are also available. It is impotant to make the data for these requirement available to our Epsilon representative nearest to you at the time of quotation.

Mezzanine Beam Connection to Main Frame Column

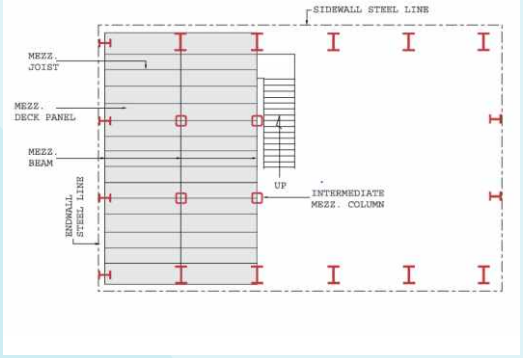


Mezzanine Floor View

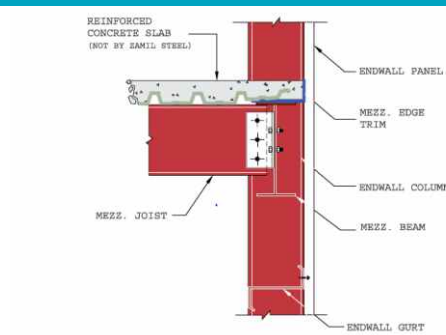
Mezzanine Joist Connection to Mezzanine Beam



Mezzanine Plan



Mezzanine Joist Connection to Mezzanine Beam



Panels

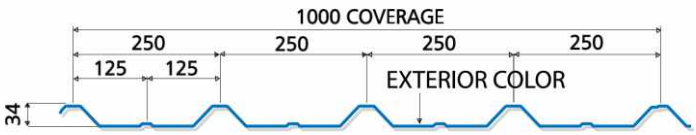
The panels used in the construction of Epsilon Pre-Engineered Buildings are composed of the following:

- Base metal of either Galvalume coated steel conforming too ASTM A 792M Grade 345B or aluminium conforming to ASTM B 209M Alloy 3003 Temper H26. Galvalume coating is 55% Aluminium and about 45% Zinc by weight.
- An exterior surface coating on painted panels of 25 microns of epoxy primer with a highly durable polyester finish.
- An interior surface coating on painted panels of 12 microns of epoxy primer and modified polyester or foam spec.

Single Skin Panels

Minimum Yield Strength is 34.5 kN/cm2

Roof Sheet

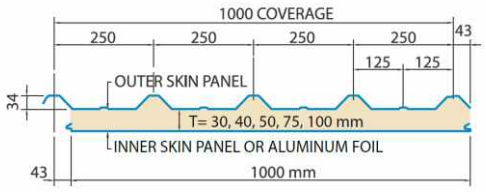


Insulated Panels

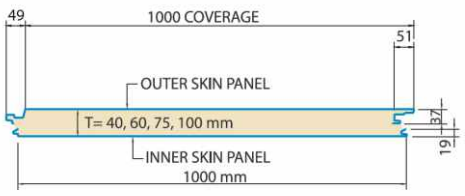
The outer and inner metal skins of insulated panels conform to the same specifications as the single skin painted panel describe above. In addition, Insulated panels have a factory injected polyurethane core. Thermal transmission data can be found in the Epsilon Technical manual on pre-engineered Buildings.

Liner panels have one metal skin surface with polystyrene foam board adhered to it for better insulation.

Roof & Wall Panel



Wall panel



Standard Panel Colors

Bare Galvalume = 0.47 mm
Color PPGL = 0.50 mm as per chart

Off White	Bare Galvalume	Beige
Torus Blue	Leaf Green	Flame Red

Sundry Items

Nuts & Bolts

Fasteners

Sealants & Closures

Self Drilling Screw

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Global Standards • End to End Services : Civil Works - Building Supply and Erection

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WAREHOUSES	CAR PARKS	COLD STORAGES / STORES
OFFICES	GAS STATIONS	EDUCATIONAL COMPLEXES
SHOWROOMS	SPORTS COMPLEXES	WORKSHOPS
	AIRCRAFT HANGARS	

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MANUFACTURING : AHMEDABAD AND PUNE (INDIA)
Offices and Representatives : India, Middle East and Africa

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