

Pennar Engineered Building Systems Ltd.
Welcomes you at

PEPSCON
2013



Date: 8th March 2013

Venue: Taj Deccan, Hyderabad



IV RAMANA RAJU
General Manager – Sales & Marketing



The creation of a thousand forests is in one acorn.



- *Ralph Waldo Emerson*

PENNAR GROUP



Pennar Industries Ltd.



Pennar Enviro Ltd.



**Pennar Engineered
Building Systems Ltd.**

*Pennar
Group*

**Largest Cold Formed steel
profile manufacturer In India**

**Operation history of over 30
Years**

**Strong presence in Automotive,
Infrastructure, Railways and
Environmental Sector**

**Seven manufacturing facilities in
India**

**Sales Support and Marketing in
30 branches across India**

Products

Cold Roll Steel Strips and Tubes

Profiles for Automobiles

Road Safety Barriers

Railway Coach Components

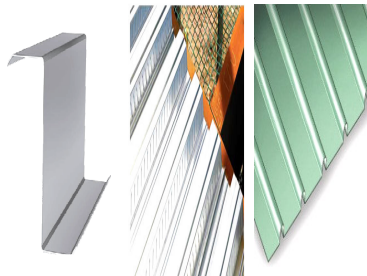
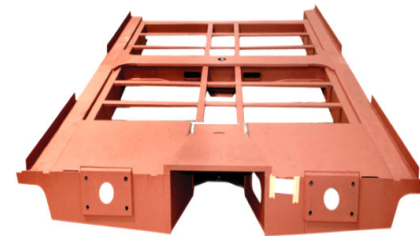
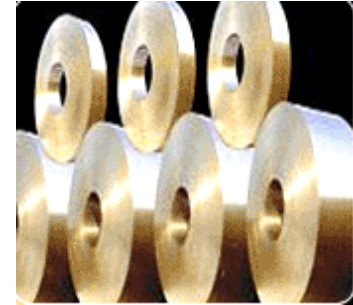
Engineering and Auto Components

Building Components

Pollution Control Equipment

PENNAR INDUSTRIES-PRODUCTS

pebs
pennar
SHAPING YOUR IMAGINATION



INTRODUCTION TO PEBS PENNAR



- A subsidiary of Pennar Industries Ltd., Hyderabad
- Incorporated in 2008 & commercial production in Jan 2010
- Involved in design, fabrication, supply & erection of:
 - Pre-engineered steel buildings
 - Solar structures
 - Cold formed buildings
 - Hi-rise buildings & structural steel
 - Industrial racking system
- Engineering Center & Manufacturing Plant at Hyderabad



TECHNICAL ASSOCIATE

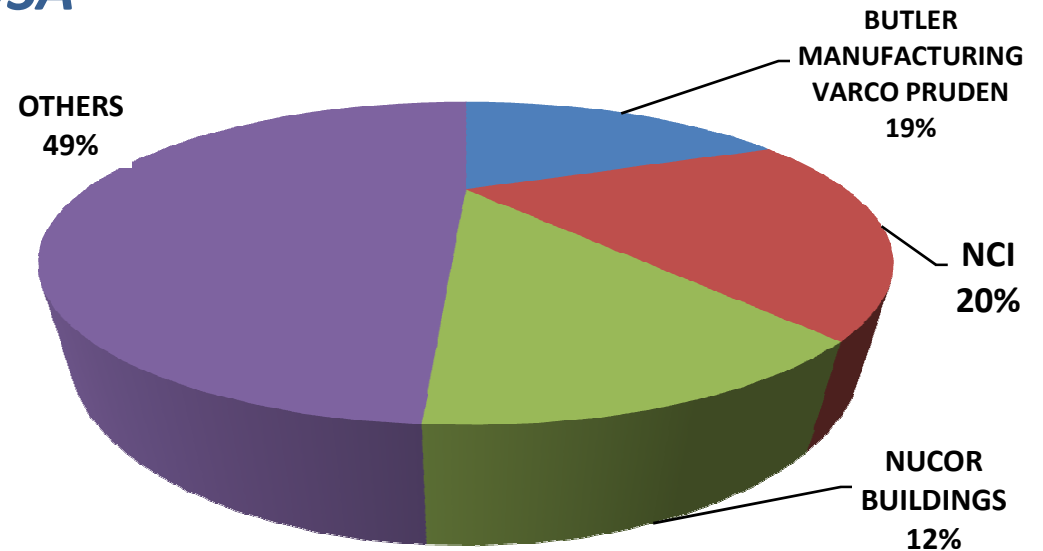
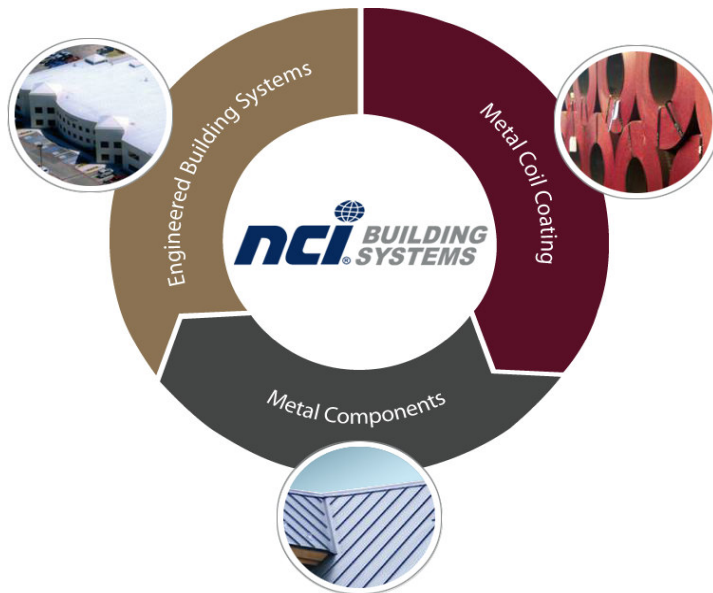


PEBS Pennar has Technical Association with NCI Group, USA for Double Lok® Standing Seam Roofing System, proven weather tight technology since 60 years in USA.



TECHNICAL ASSOCIATE

NCI BUILDING SYSTEMS, USA



Engineered Buildings System

- Produces main frames, Long Bay® Systems & light commercial systems for all brands and depots

Metal Coil Coating

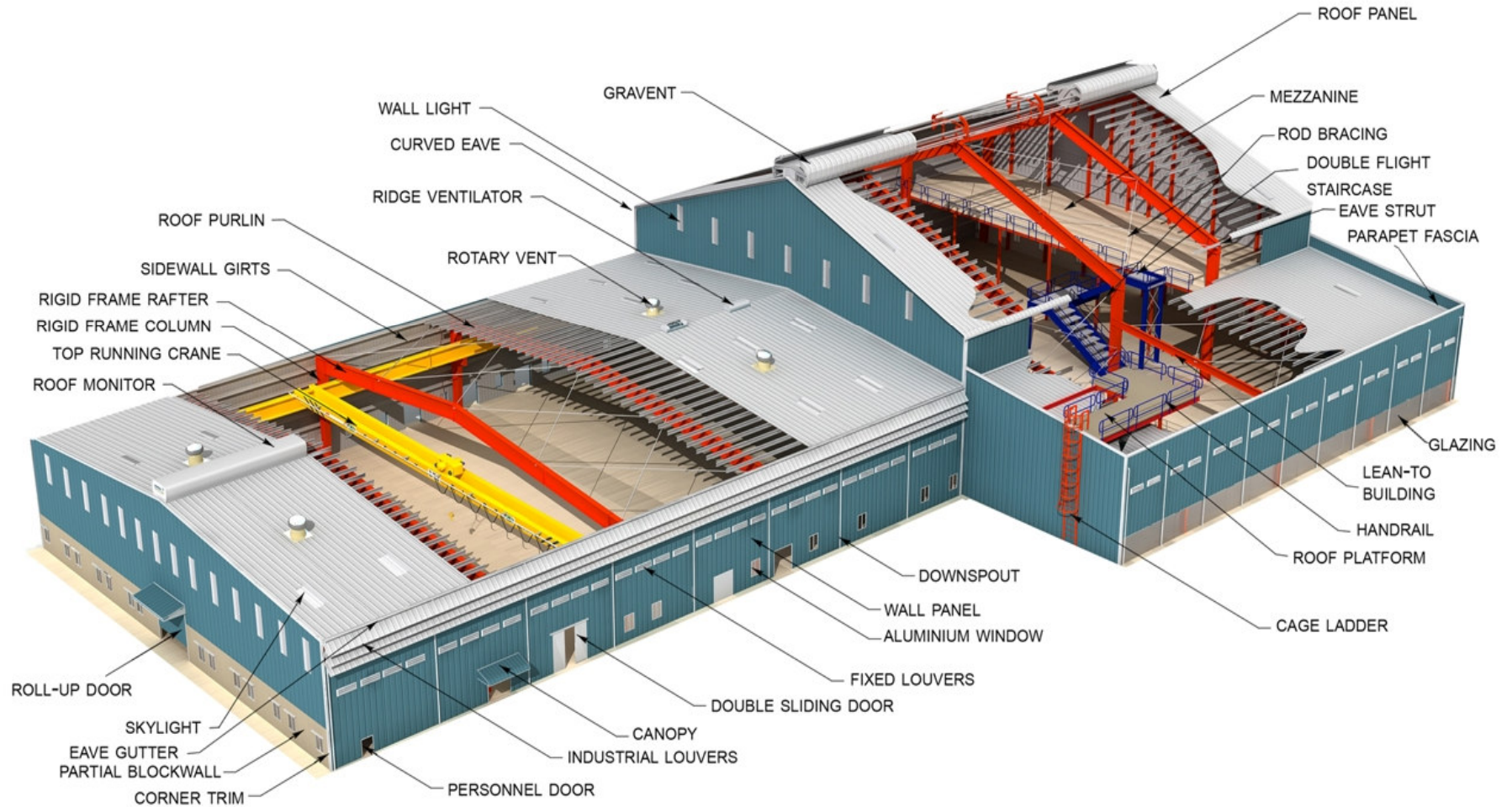
- Supplies painted light gauge coils for panels and flashings and heavy gauge coils for secondary structural products

Metal Components

- Produces metal components for the Engineered Building Systems segment including roll-up and sectional doors

INTRODUCTION TO PEB

TYPICAL PRE-ENGINEERED STEEL BUILDING



CUTTING-EDGE PRODUCTION TECHNOLOGY

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PRODUCTION UNIT



State-of-the-art
manufacturing
facility at
Hyderabad, India

Capacity of 90,000
MT per annum

Spread over an area
of 29,000 sq m



MAJOR EQUIPMENTS



600T AIDA PRESS



LASER CUTTER



TANDEM PRESS BRAKE



PURLIN ROLL
FORMER



MULTI TORCH



16mm X 6m SHEAR



GEKA IRON WORKER



RADIAL DRILLING



PLASMA CUTTER



MOBILE ROLL FORMER



SAW AUTOMATED WELDER



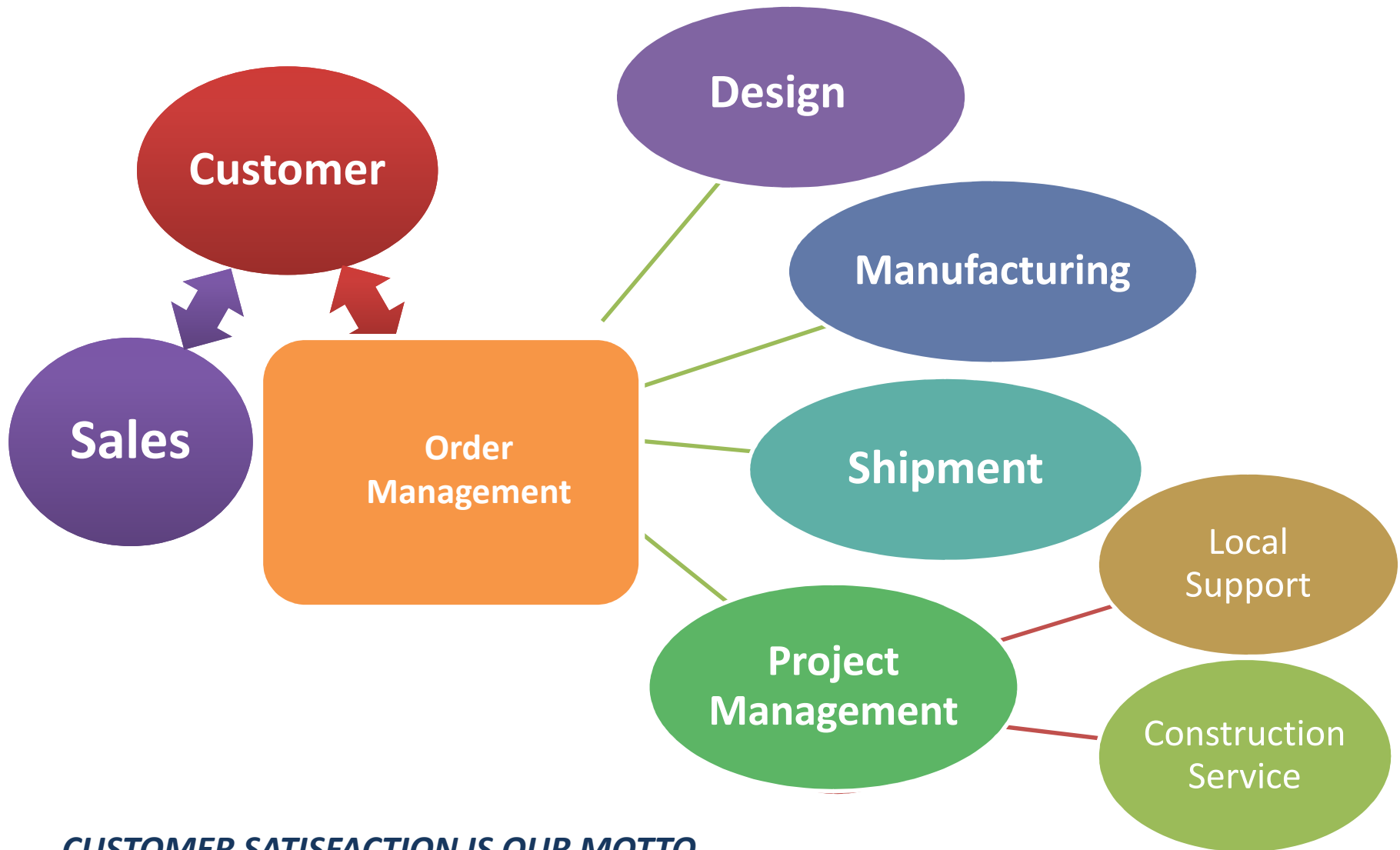
110T PRESS BRAKE

ENGINEERING EXPERTISE



- 70 experienced Engineers in Design & Detailing team
- Software assets include:
 - Auto CAD
 - STAAD Pro
 - MBS
 - Stru CAD
 - 3D Max
 - Tekla X-Steel
- Codes: American, Euro, British, Indian, Australian

JOB EXECUTION PROCESS FLOW



CUSTOMER SATISFACTION IS OUR MOTTO

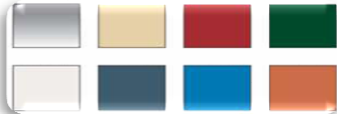
DIFFERENTIATORS



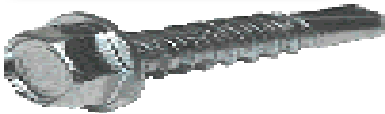
Double-Lok ® Standing Seam Roofing System with 10 years Leak Proof Warranty



Skylights with 10 years warranty



Variety of color range available



Class III Fasteners from reputed manufacturers



Roll Formed Sand & Water Trap Louvers



State of the Art Technology used in production



Order Management Department, to take special care of projects



"Safety first" culture during execution

APPLICATIONS



FACTORY



SHOW ROOM



STADIUM



WAREHOUSE



AIRCRAFT HANGAR

APPLICATIONS



MULTI-STOREY



COLD FORM STRUCTURE



RACKING SYSTEM



COLD STORAGE



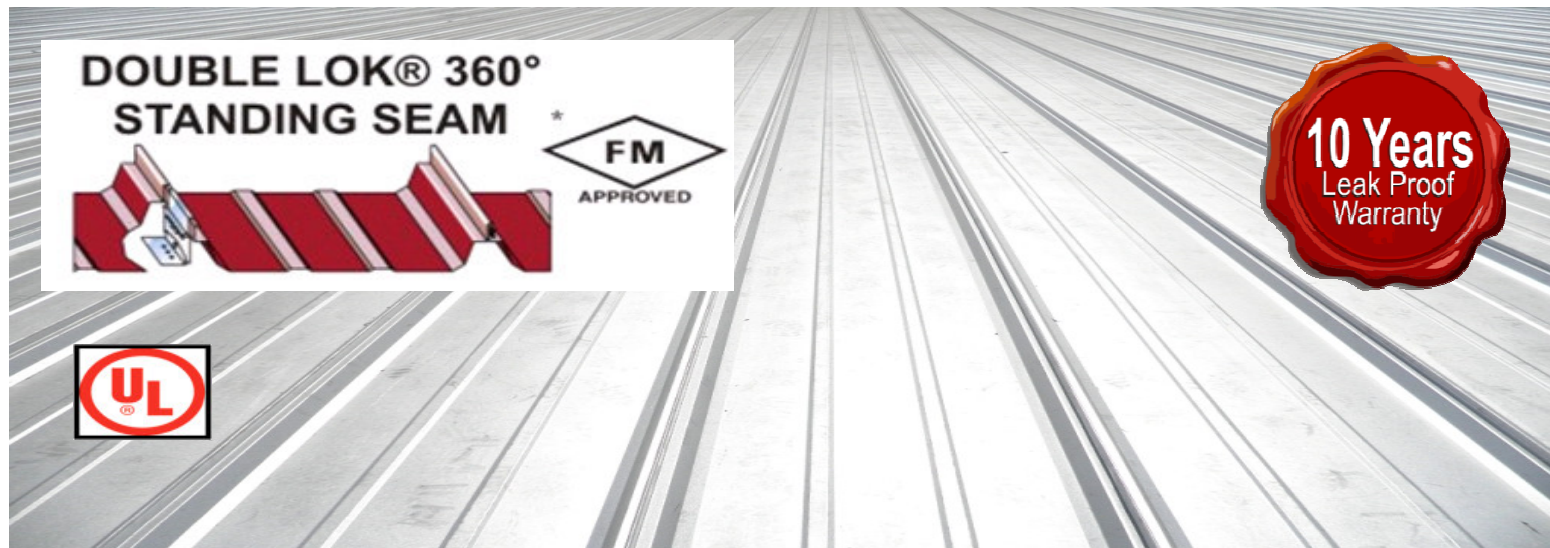
OFFICE BUILDING



SOLAR STRUCTURES

DOUBLE-LOK® STANDING SEAM ROOFING SYSTEM

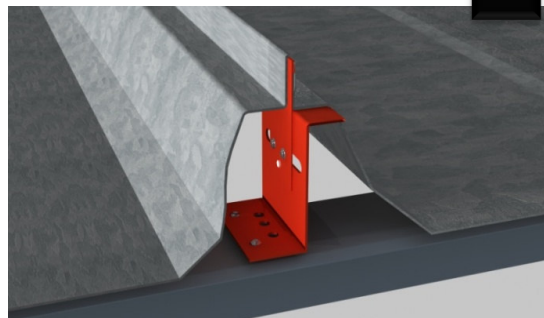
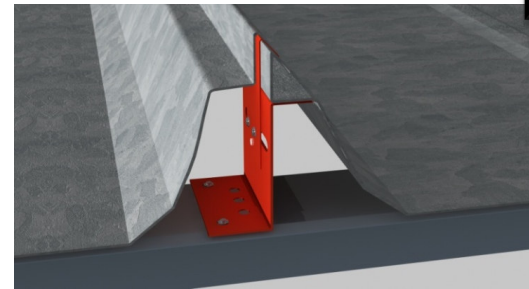
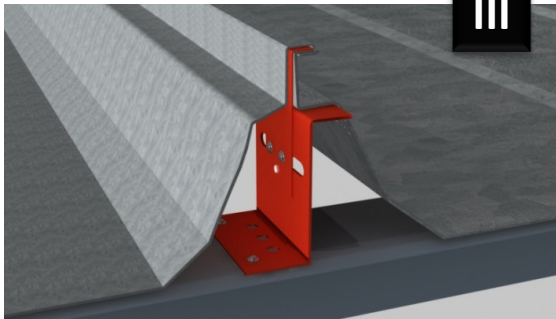
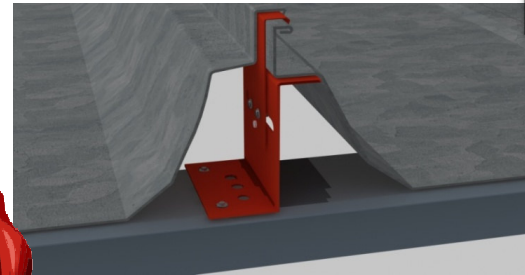
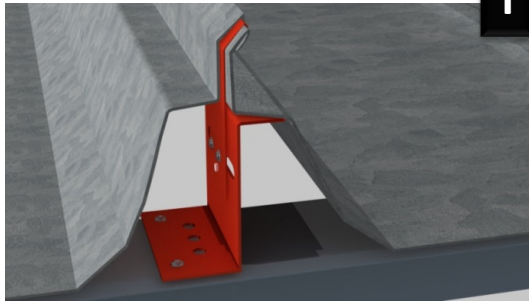
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DOUBLE-LOK® SEAMING MACHINE

DOUBLE- LOK® STANDING SEAM ROOFING SYSTEM

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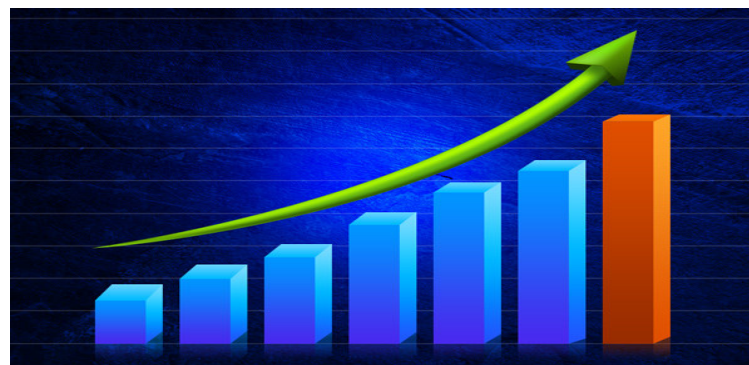
Features:

- *Motorized seaming machine runs over the lap to provide smooth seam by bending the sheet in phases to 360 degree.*
- *Thus provides Double Lok® seam and makes it 100% leak proof.*

THE GROWTH STORY

PEBS Pennar's revenue

YEAR	REVENUE (INR Cr.)
FY 10	34
FY 11	165
FY 12	278
FY 13 (PROJECTED)	350



OUR CREDENTIALS



CERTIFICATE

Management system as per
ISO 9001 : 2008

In accordance with TUV INDIA procedures, it is hereby certified that

PENNAR ENGINEERED BUILDING SYSTEMS LIMITED
CORPORATE OFFICE : 9th Floor (West Wing),
DHFLVC, Silicon Towers, Kondapur, Hyderabad - 500 084
WORKS : Survey No.144 & 145, Chandapur Village,
Sadasivpet Mandal, Medak District, Andhra Pradesh,
India

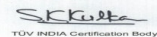


applies a quality system in line with the above standard for the following scope

**Design, Manufacture, Supply and Erection of Pre-Engineered
Building Systems**

Certificate Registration No. **QM 06 00151**
Audit Report No. **Q 3358/2010**

Valid until **21.12.2013**


TUV INDIA Certification Body

Mumbai, 22.12.2010

This certification was conducted in accordance with the TUV INDIA auditing and certification
procedures and is subject to regular surveillance audits.
TUV India Pvt. Ltd., 801, Raheja Plaza - 1, L.B.S. Marg, Ghatsopar (W), Mumbai - 400 086, India www.tuvindia.co.in



Indian Green Building Council (IGBC)


hereby certifies that


PEBS Pennar
Sadasivapet, Hyderabad

has successfully achieved the Green Building Standards required for
the following level of certification under the IGBC Green Factory Building Rating System

IGBC Green Factory Building Gold
October 2010


Pradeep Bhargava
Chairman, IGBC Green Factory
Building Rating System


Dr. Prem C. Jain
Chairman, IGBC


Jamshyd N. Godrej
Chairman, CII-Godrej GBC



Certificate of Compliance

This certificate is issued for the following:

**DOUBLE-LOK STANDING
SEAM ROOF SYSTEMS
AS CLASS 1 PANEL ROOFS**

Prepared for:

Pennar Engineered Building Systems Ltd.,
9th Floor, West Wing, DHFLVC Silicon Towers
Kondapur, Hyderabad - 500 084 India

FM Approvals Class: 4473

Approval Identification: 5036438 Approval Granted: April 18, 2011

Said Approval is subject to satisfactory field performance, continuing follow-up facilities and Procedures Audits, and strict
conformity to the construction as shown in the Approval Guide, an online resource of FM Approvals.

For more than 160 years FM Approvals has partnered with business and industry
to reduce property losses.




Richard P. Felton, P.E.
Asst. Vice President, Group Manager
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062



CERTIFICATE OF APPRECIATION



This is to certify that **MR. BABY SUBIN** of **M/S. PEBS PENNAR**
has been adjudged "**BEST SAFETY CONSCIOUS SUPERVISOR -
CONTRACTOR**" for the year 2011.

Management is looking forward for your total involvement and
further contribution in the field of Occupational Health & Safety in
making this unit a complete incident free unit at all times.

Date: 04.03.2012




Chairman - Apex Safety Committee

UltraTech Cement Ltd.

Unit: Kotputli Cement Works



PEBS PENNAR'S COMPLETED PROJECTS

PROJECT PHOTOGRAPHS



99m Clear Span

Stacker Reclaimer Building for UltraTech Cement Ltd., at Kotputhli, Rajasthan.

PROJECT PHOTOGRAPHS



UltraTech Cement Ltd, Hirmi, Chhattisgarh, India

PROJECT PHOTOGRAPHS



Length: 710m

My Home Industries Ltd. Visakhapatnam, Andhra Pradesh, India
700m length building

PROJECT PHOTOGRAPHS

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My Home Industries, Kodada, India

PROJECT PHOTOGRAPHS

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Core Green Sugars –Yadgir, Karnataka, India

PROJECT PHOTOGRAPHS

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Pennar Industries Limited, Hyderabad, AP, India

PROJECT PHOTOGRAPHS



Double-Lok[®] Roofing System

Dr. Reddy's Laboratories Ltd., Baddi, HP , India

PROJECT PHOTOGRAPHS

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Samyu Glass Pvt Ltd-Kadapa , AP , India

PROJECT PHOTOGRAPHS



Annex Glass, Hyderabad , AP , India

PROJECT PHOTOGRAPHS



E-Polymers (Inside View), Hyderabad, AP , India

PROJECT PHOTOGRAPHS



U I Pipe Fittings, Andhra Pradesh, India

PROJECT PHOTOGRAPHS



Triton Valves, Mysore, Karnataka, India

PROJECT PHOTOGRAPHS

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United Steels Ltd., Andhra Pradesh, India

PROJECT PHOTOGRAPHS

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Andhra Byrate Corporation Ltd , AP, India

PROJECT PHOTOGRAPHS

Double-Lok[®] Roofing System



***Schneider Electric Ltd. Bangalore, Karnataka , India
Main Circuit Breakers manufacturing facility***

PROJECT PHOTOGRAPHS

100MT crane- 2 No.s
25MT crane- 2 No.s



LVN TECHNOLOGIES LTD. - Manufacturers of Cement plant equipments, Trichy, Tamil Nadu, India

PROJECT PHOTOGRAPHS



Proctor & Gamble (L&T), Bhopal , India



**2400 sqm area of mezzanine of the 21,000 sqm built up area, Double – Lok®
100% leak proof standing seam roofing system**

PROJECT PHOTOGRAPHS



Schwing Stetter - Manufacturing and assembly plant of ready mix concrete trucks at Chennai covering an area of 13817m²

PROJECT PHOTOGRAPHS



Mungi Engineering Pvt Ltd., Mahindra Campus, Pune, India.

PROJECT PHOTOGRAPHS



Safexpress – Indore, Madhya Pradesh

PROJECT PHOTOGRAPHS

Area: 36,500 sqm



Asian color coated (i) Ltd., Khopoli, Maharashtra , India

PROJECT PHOTOGRAPHS



Double-Lok[®] Roofing System

Area: 4 lakh sft



***Reliance Retail – National Distribution Center
Pune , India***



PROJECTS IN THE VERGE OF COMPLETION

BHARAT BIOTECH INTERNATIONAL LTD. HYDERABAD, ANDHRA PRADESH , INDIA



Double-Lok[®] Roofing System



Multi-storey G+7, (85,000sft) R&D center

TOYOTSU RARE EARTHS INDIA PVT. LTD.



The building is installed with 2 coats of Epoxy High Build Finish paint (100 microns each) & one coat of Acrylic Polyurethane (40 microns) above the Inorganic Zinc Silicate primary coat.

JAYABHERI ORANGE COUNTY - G + 10 HYDERABAD



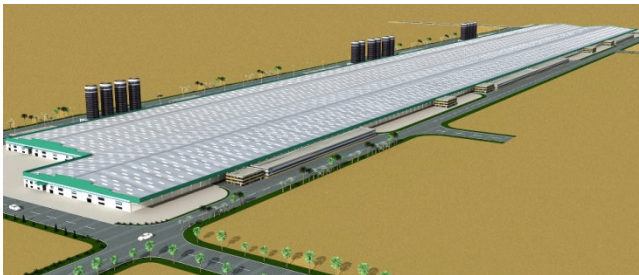
Multi-storied building, G + 10





IOT INFRA PROJECT




IOT INFRA PROJECT



***IOT Infrastructure & Energy Services Ltd. building for ONGC OPAL,
the length of the building is approx. 1 km***






HIGHLIGHTS OF SOME OF OUR PRESTIGIOUS PROJECTS



Customer	Project Site	Buildings Specifications
 DR. REDDY'S	Baddi, HP	10000 sq m multi storey formulation building with 100% leak proof standing seam Double - Lok [®] Roofing
	Jaipur, Rajasthan Hirmi, Chattisghar Ginigera, Karnataka Neemuch, MP Gulbarga, Karnataka Gotan, Rajastan	99 M Clear Span building with 32m peak height covering an area of 28800 Sq.m 65 M Clear Span Building with 30m peak height covering an area of 13050 Sq.m 50 M Clear Span building with 16 m clear height 52 M Clear Span building covering an area of 17324 Sq.m 2 buildings of limestone and additive storage sheds of more than 410m long 75m clear span lime storage shed with a length of 192m
 P&G	Bhopal, M.P	22000 sqm building with multiple cranes and 100% leak proof standing seam Double -Lok [®] Roofing






HIGHLIGHTS OF SOME OF OUR PRESTIGIOUS PROJECTS



Customer	Project Site	Buildings Specifications
	Yadgir, Karnataka	1st sugar factory in PEB, 35MT crane at 28M clear height covering an area of 10746 Sq.m
 LNV Technology	Chennai	Manufacturing facility covering an area of 4525 Sq.m with 2 cranes of 100MT each running in tandem
	Bangalore	8100 sq m manufacturing facility with 100% leak proof standing seam Double -Lok ® Roofing
	Khopoli, Maharastra	37000 sq m steel plant
	Tarapur, Maharastra	Curved roof with 100% leak proof standing seam Double -Lok ® Roofing






HIGHLIGHTS OF SOME OF OUR PRESTIGIOUS PROJECTS



Customer	Project Site	Buildings Specifications
	Kishenganga, J & K	Part of India's Highest Value Project workshops with multiple cranes covering an area of 5907 sq.m
 TOYOTA	Bangalore	Orders received from SMCC for Toyota Auto components manufacturing facility covering an area of 18000 Sq.m
 BOSCH	Goa	Auto components manufacturing facility covering an area of 3240 Sq.m with 100% leak proof standing seam Double-Lok [®] roofing and sub purlin liner arrangement
 Reliance Retail	Pune	Orders received from L&T for Reliance's first distribution center in PEB consisting of 13 buildings covering an area of 7 Lakh S.ft 100% leak proof standing seam Double-Lok [®] roofing
 ITC Limited	Nepal	Cigarette factory covering an area of 8800 sq.m with curved roof equipped with 100% leak proof standing seam Double-Lok [®] roofing system. The project is an India-Nepal-UK Joint venture

HIGHLIGHTS OF SOME OF OUR PRESTIGIOUS PROJECTS

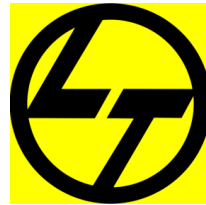


Customer	Project Site	Buildings Specifications
	Chennai	Orders received from CCCL for Schwing Stetter for its Manufacturing and assembly plant of ready mix concrete trucks covering an area of 13817 Sq.m
	Visakhapatnam, AP	710 M long building covering an area of 9346 Sq.m with conveyors suspended from the roof
	Shirwal, Maharashtra	100% leak proof standing seam Double-Lok ®, G+1 mezzanine system, having load of 7.5 KNT per sq.m, with liner panel covering an area of 4035 sq.m
	Nashik, Maharashtra	1680 Sq.m building equipped with our unique 100% leak proof standing seam Double-Lok ® roofing
	Hyderabad, Andra Pradesh	R&D center for Bharath Biotech, Multi-storied building (G+5), of 85,000sft

OUR ELITE CUSTOMERS/END USERS



HCC



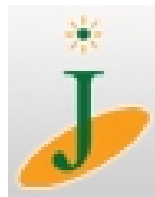
P&G



ABB



OUR ELITE CUSTOMERS/END USERS



OUR ELITE CUSTOMERS/END USERS



PEBS PENNAR PLANT



**INDIA'S 1ST IGBC GOLD RATED GREEN
FACTORY**



ENTRANCE CANOPY



FABRICATION BAY



HEADER BAY



CANTEEN



PEB Employability in Commercial, Residential, Office Buildings and Shopping Malls



***PEBS PENNAR...
RISING HIGHER...***





COMMERCIAL SECTOR

PEB for Commercial Sector



Why PEB for Commercial Buildings?

- Less dead weight for longer spans
- Average delivery period will be reduced by 20% to 30%
- Effective cost saving by virtue of early occupancy
- Minimization in cost of erection
- Sustainability for much longer duration
- Steel is fully recyclable – more lead points for achieving green certification
- Withstands higher seismic load

PEB for Commercial Sector



Why PEB for Commercial Buildings?

- Better solution to address the issue of shortage of skilled construction workers, which is currently being faced by the Indian construction industry
- Better strength-weight ratio compared to concrete
- Architecturally appealing
- Versatile in design
- Low maintenance cost and high salvage value
- Less store space required for construction materials during the installation, this will be highly advantageous especially at busy commercial centers where storage space is a constraint for sand , cement and aggregate.

PEB for High-Rise Buildings

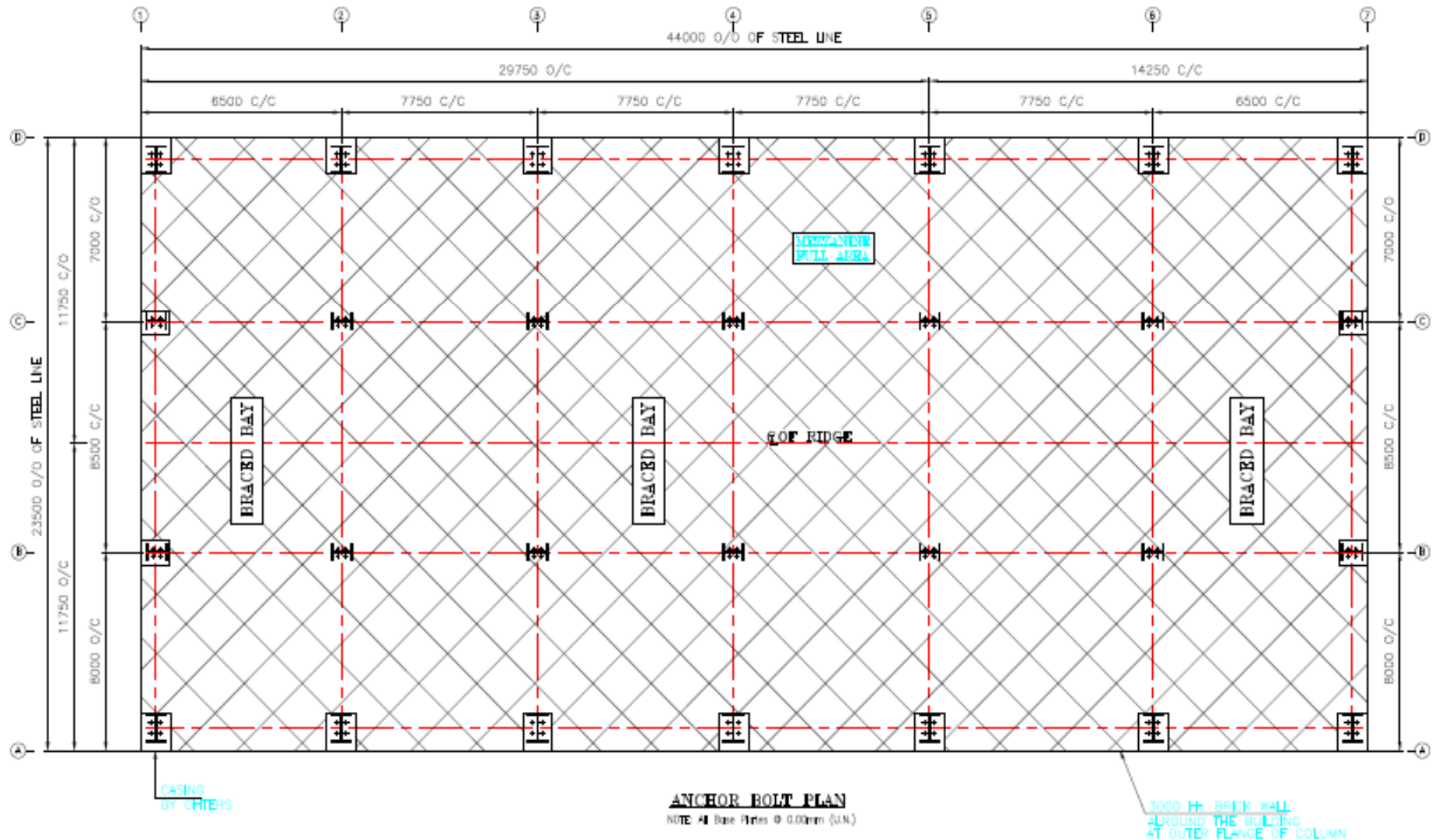
Bharat Biotech Ltd., Hyderabad, AP

- Laboratory & Formulation building
- Multi-storey G+7 floors
- Total height of 33m
- Total width of 23.5m



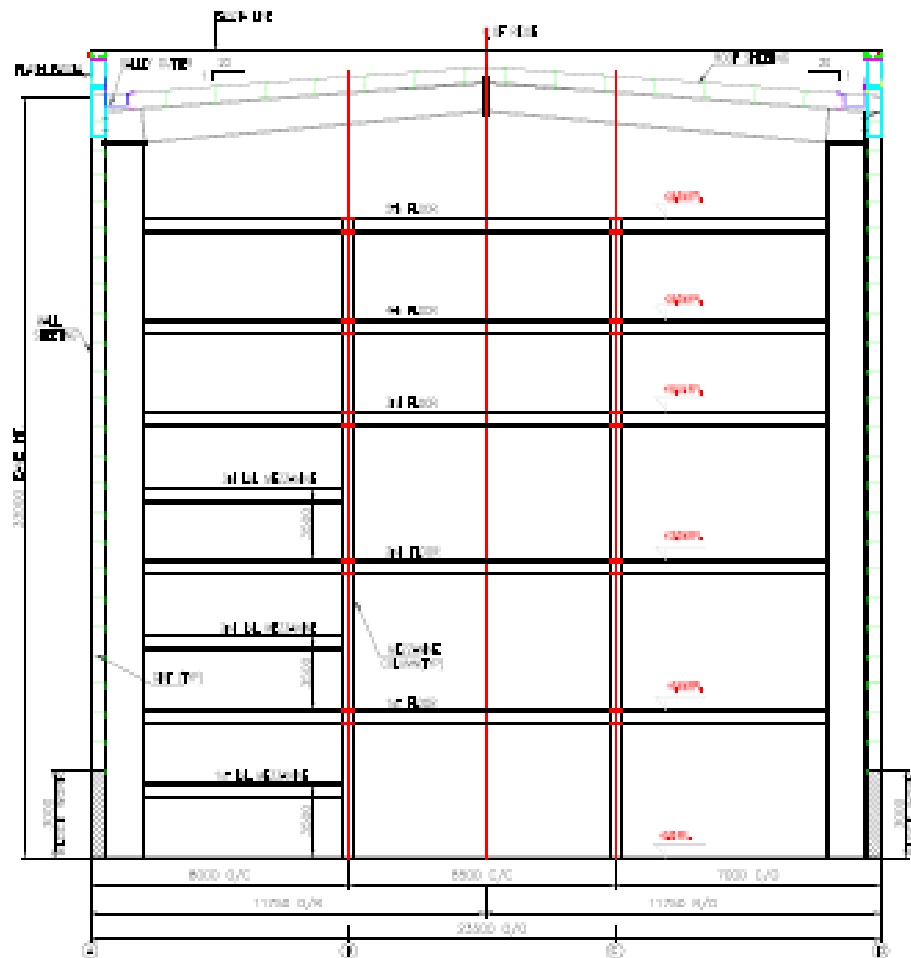


G+7 Formulation Lab for Bharat Biotech, Hyderabad

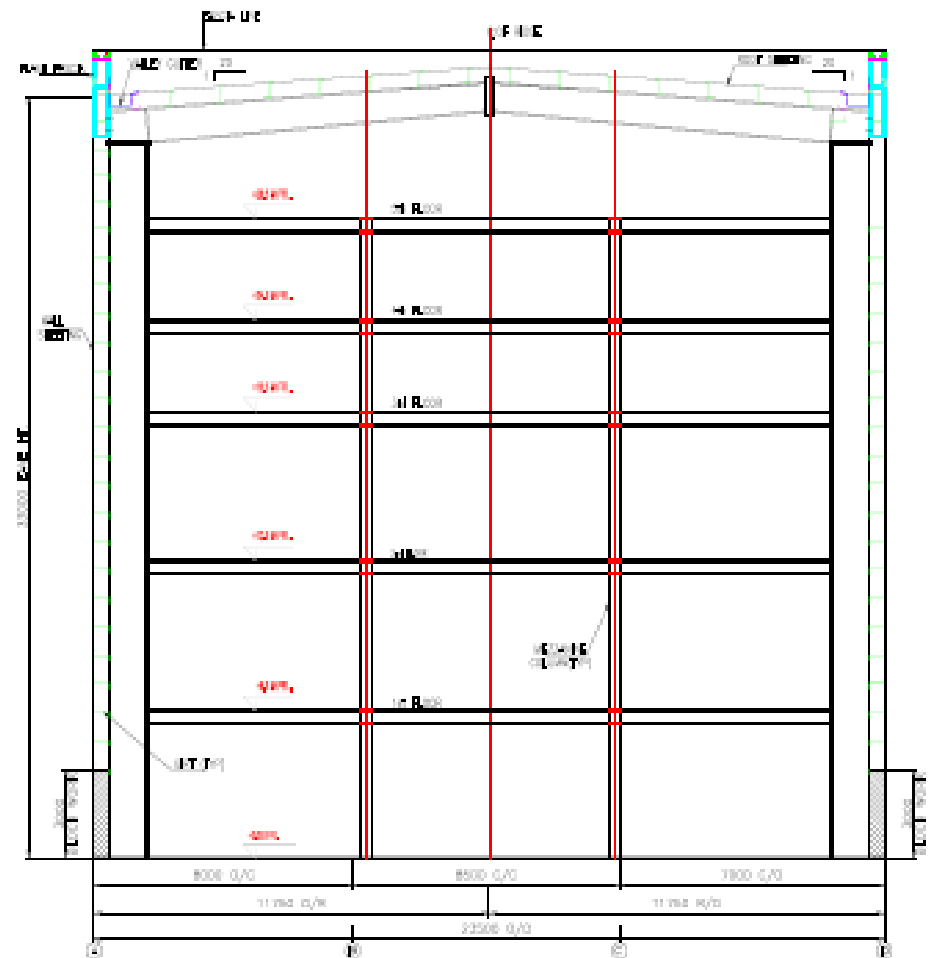




G+7 Formulation Lab for Bharat Biotech, Hyderabad



**TYPICAL CROSS SECTION
AT G1-1 TO 5**



**TYPICAL CROSS SECTION
AT G1-6 & 7**

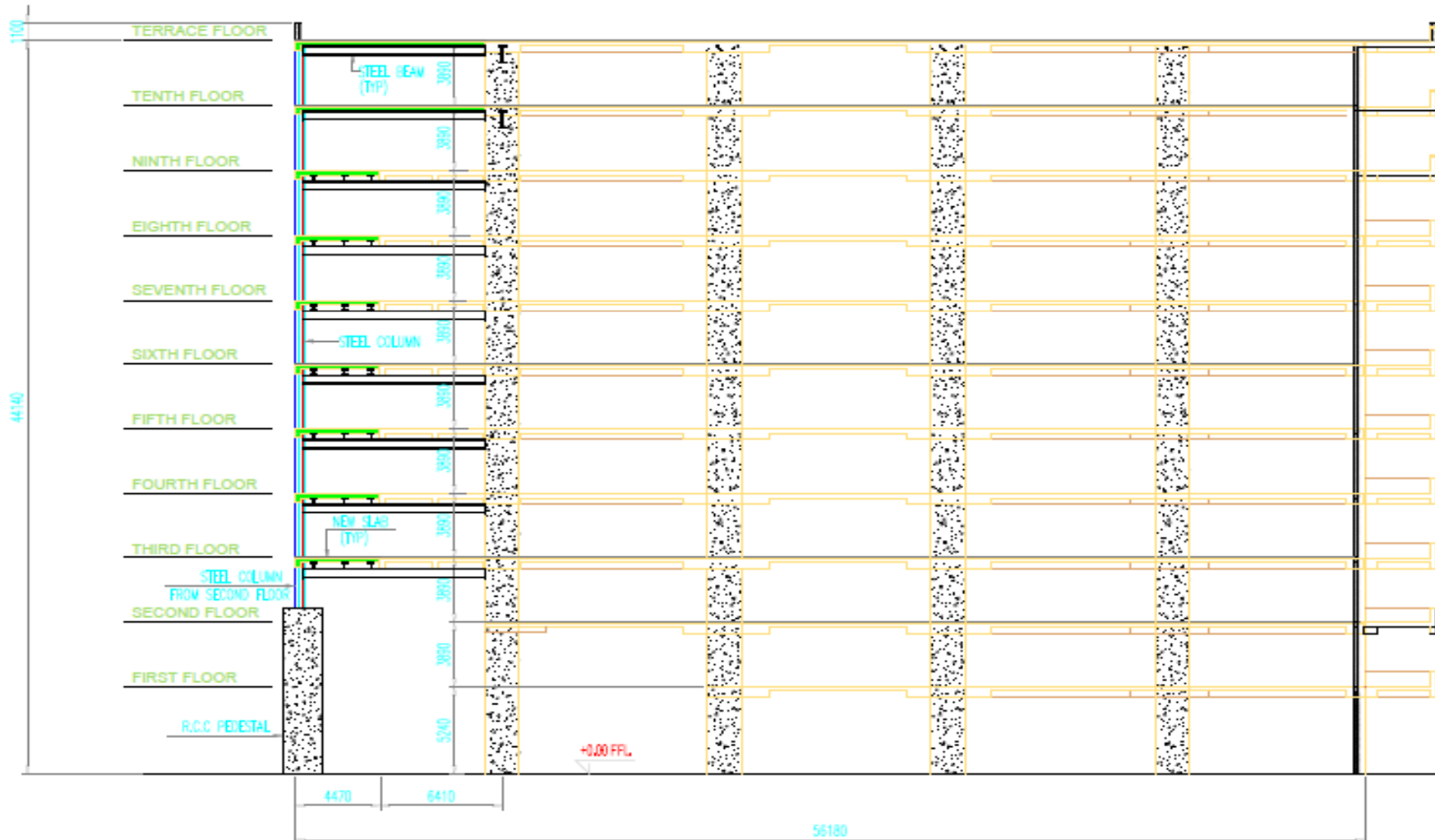
PEB for High-Rise Buildings

Jayabheri Orange County, Hyderabad, AP

- Commercial Building
- G+10 floors
- Total height of 44m



G+9 Extension Building for Jayabheri, Hyderabad





RESIDENTIAL SECTOR

PEB for Residential Sector

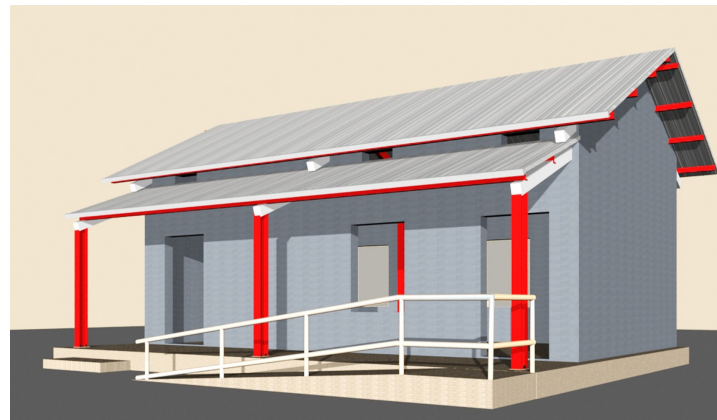


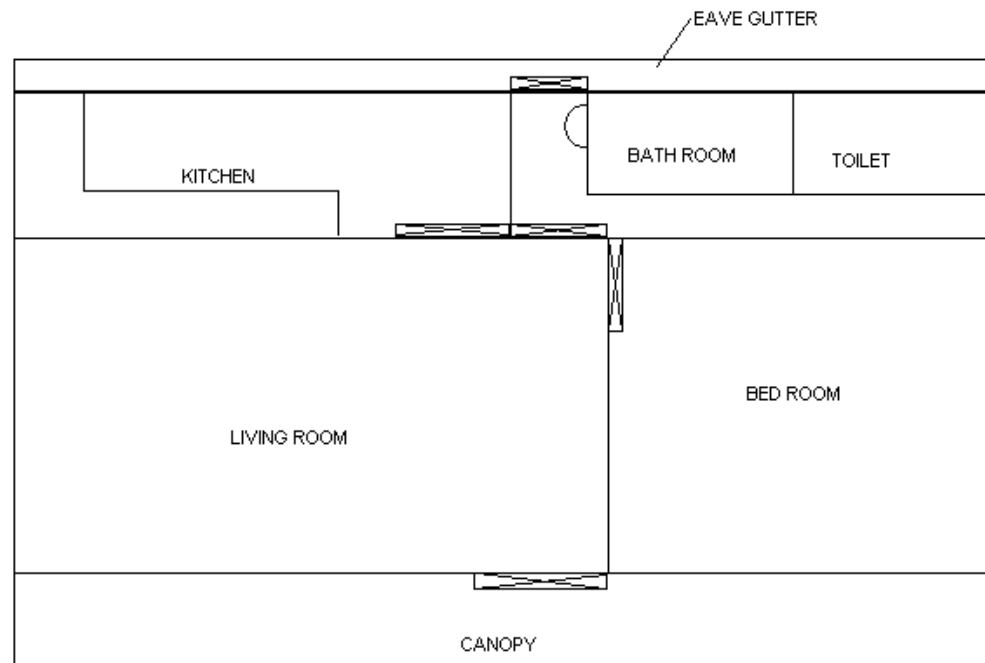
Why PEB for Residential Buildings?

- Single point solution throughout the construction procedure
- Less storage space required at site
- Better earthquake resistance
- Faster construction
- Lighter sections reduce the foundation cost
- Better solution to address the issue of shortage of skilled construction workers, which is currently being faced by the Indian construction industry
- Since steel is recyclable, it will address the issue of Green Buildings

PEB for low cost housing

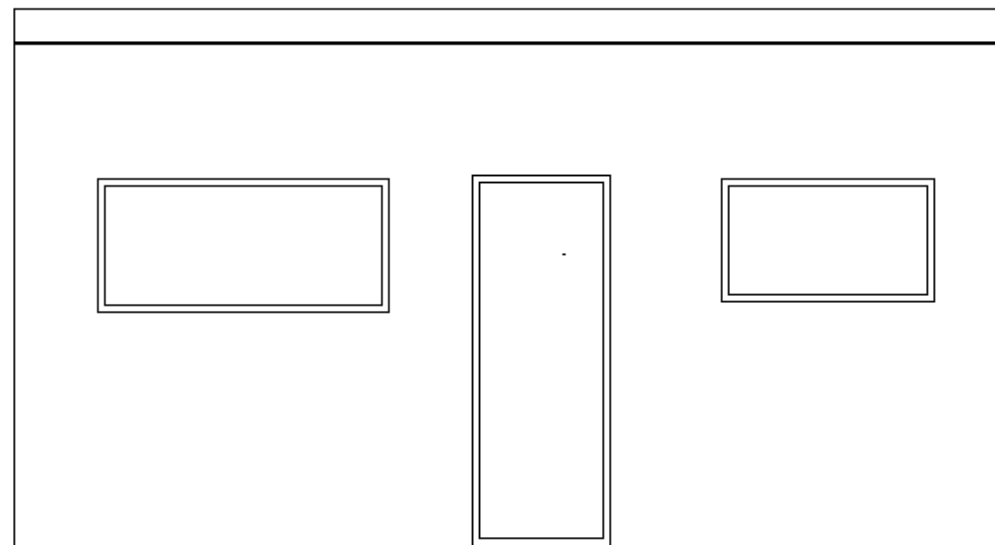
Construction of low cost houses, school buildings using cold form steel structures.



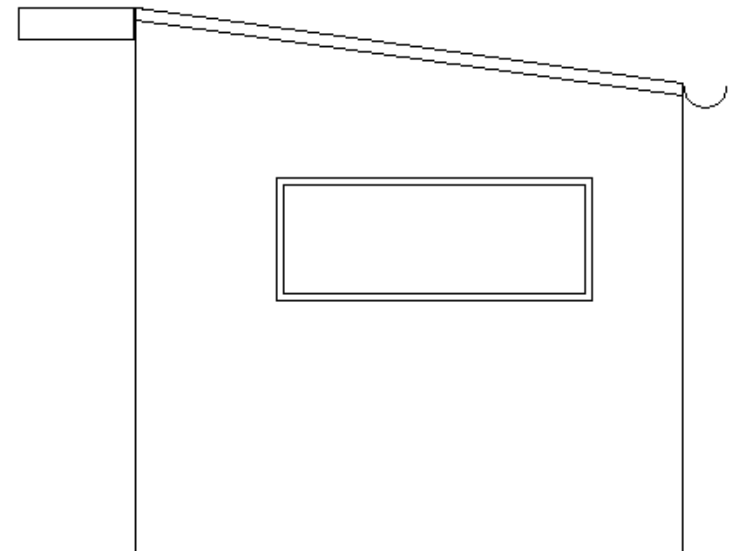


PLAN

Plan and Elevation



FRONT VIEW



SIDE VIEW



Material Specification

Portion	Area	Material
Living room, bed room, kitchen	500-600 Sq Ft: Ht 12 Feet	Columns and Rafters: Grade 50, ASTM A572, yield strength of 345 Mpa Roof: Galvalume sheet of 0.5mm thick, Purlin: 275 gsm cold rolled sections, Insulation: 12 kg/m3 density
		Wall: Mortar Brick Pre cast/ Ready made concrete panels (by others)
Wash room	Bath, Toilet	Roof, Walls
Rain water harvesting		Gutter and pipes: Metal down take pipe
Doors (2 Nos) and Windows	7x2= 14 Sq Ft 4 Nosx2x2= 8 Sq Ft	



OFFICE BUILDINGS

PEB for Office Buildings

Multi-storied Building for Gland Pharma, Hyderabad



PEB for Office Buildings

Dr. Reddy's Laboratories Ltd., Himachal Pradesh

- Lab & Formulation building
- Two storied - G+1 floors



PEB for Show Rooms

Kapil Honda

- Mezzanine at a height of 3.5m
- Height – 7.7m



Green Honda

- Total width 12.84m



PEB for Commercial Building

Vishweshwara Rao, Vijayawada, AP

- Commercial complex/ Conventional center



PEB for Shopping Malls

Why PEB for Shopping Malls?

- They are faster, easier and almost require half installation/erection cost as compared for conventional buildings
- The building components used in its construction are recyclable
- Pre-engineered buildings can be adapted to suit a wide variety of structural applications





Looking at the advantages, PEB can effectively fill up the critical shortages in the Indian Infrastructure domain in areas of housing, education health care and multistory commercial buildings.



Q & A



Thank You