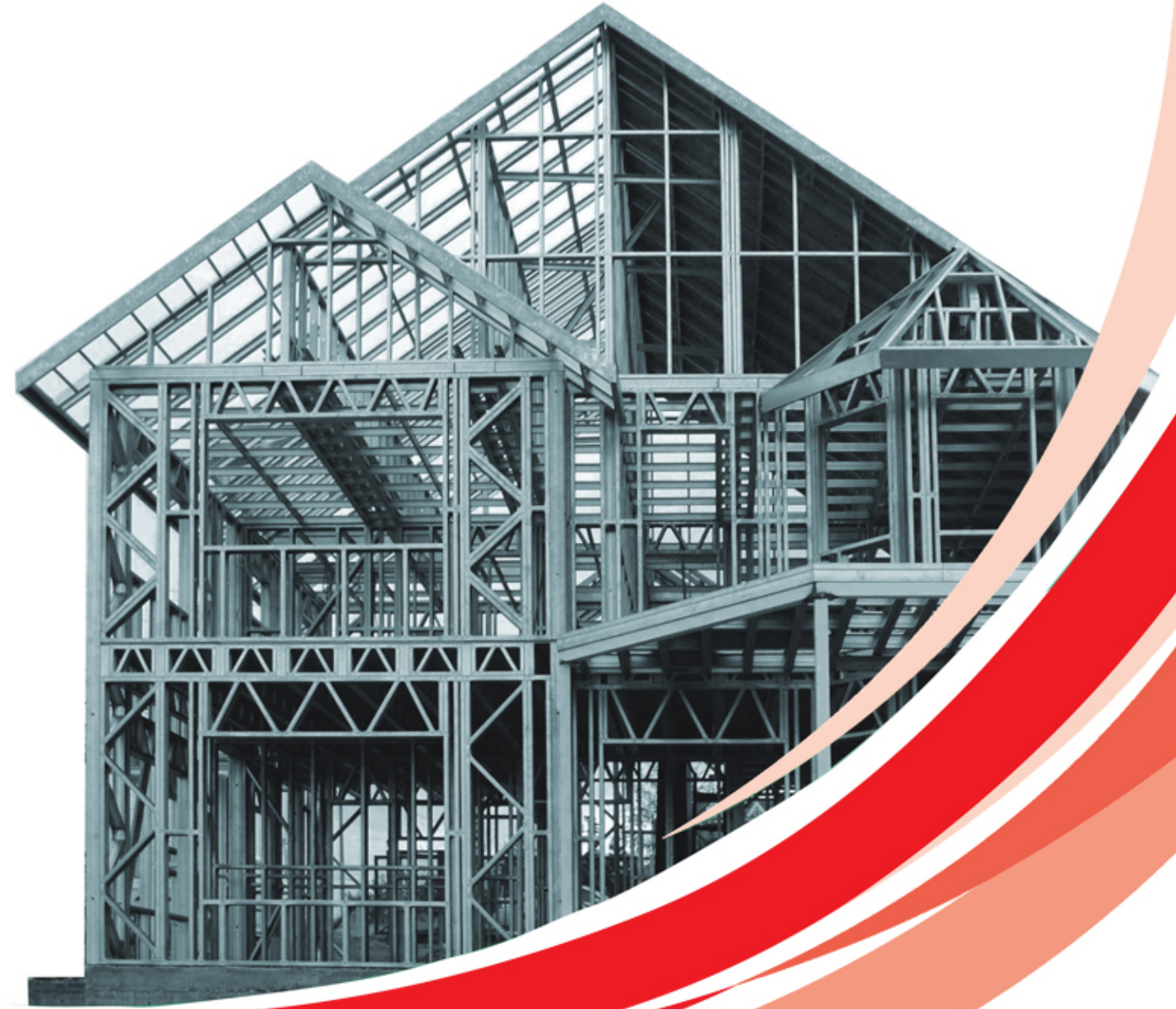




# *Light Steel Framing System*



**ADVANCE** Group

P.O BOX 3985, 1079 MANILA  
[www.advancegroup.net.ph](http://www.advancegroup.net.ph)

Advance Group reserves the right to change performance and specification described in this brochure from time to time.

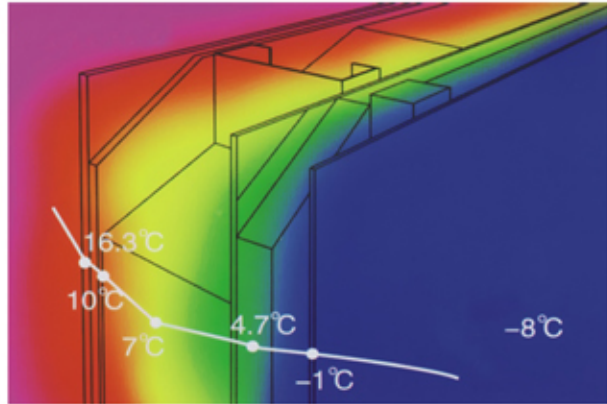


Light Steel Framing System's main load-bearing structure uses 0.75 - 1.60 mm cold -formed steel, which is prefabricated and built by high-tensioned steel sheets and with anti-eroding characters. Therefore, we call it cold-formed steel house, also known as (super-) light steel residential building.

**ADVANCE** Group



### Energy-saving Environmental Protection



Advance roof and wall cladding material guarantee excellent acoustic and insulation performance . Less 65% energy consumption than the concrete structure .

Dry construction condition; no pollution; no waste;90% materials can be recycled



### Safe and Durable

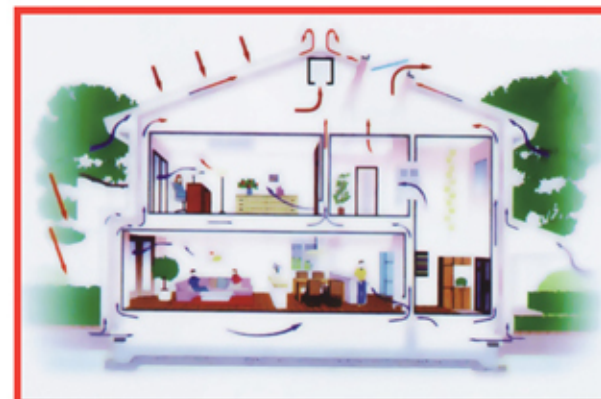
Tests prove that the cold-formed steel house can withstand even 8° rare-occurrence earthquake.

High anticorrosive coating, service life over 70 years.

### Comfortable and Aesthetic

Additional 10%-15% net area to the traditional building ; air cavity between the cladding and main structure guarantees the comfortable indoor space.

Plasticity provides the steel structure more complex building shape



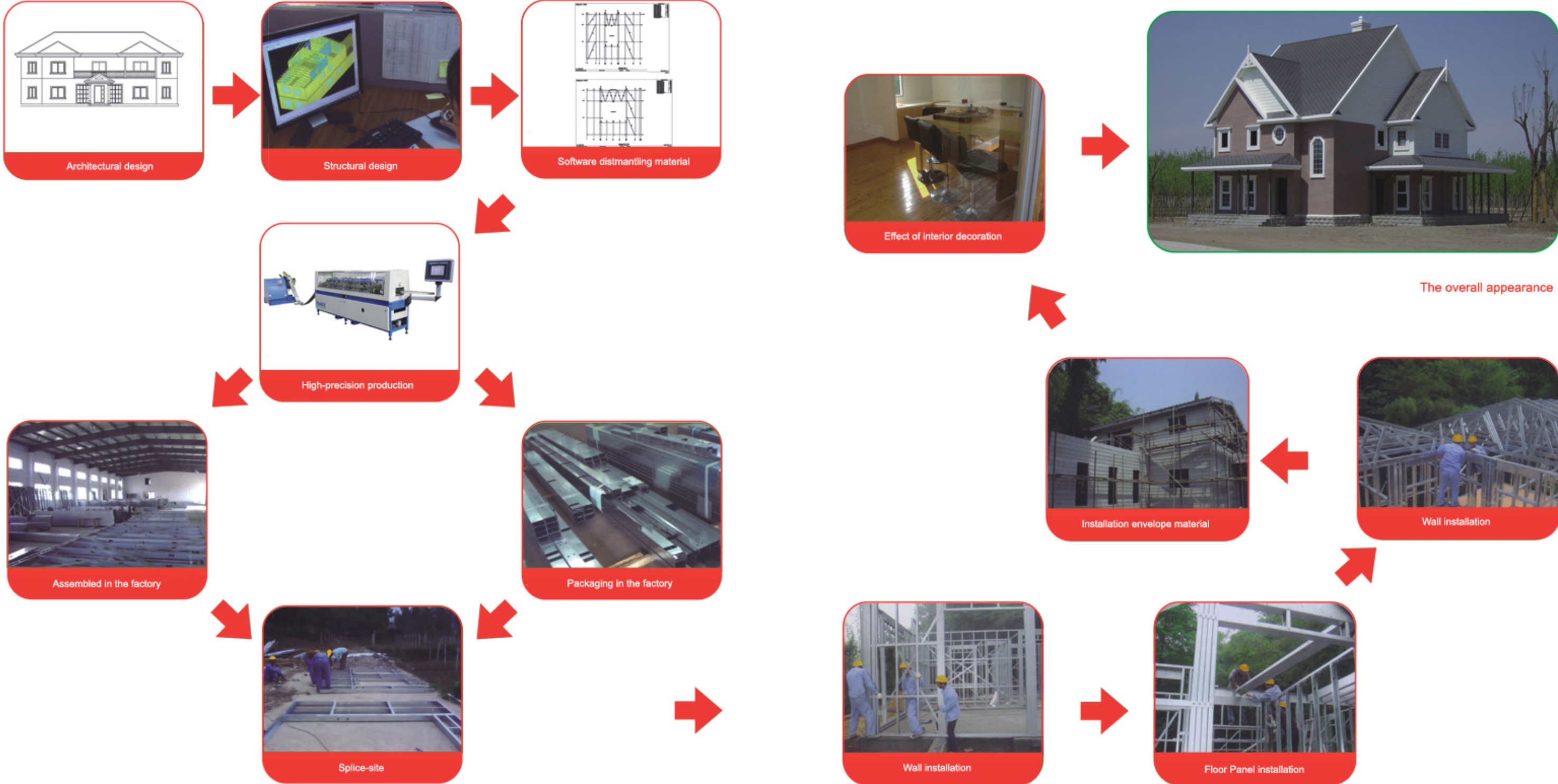
### Low cost

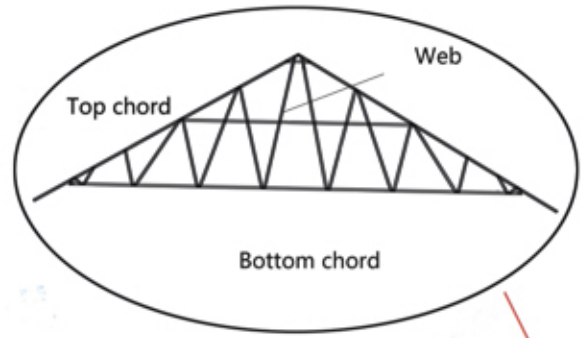
Professional software design to control the steel quantity under 30kg/m<sup>2</sup>;The building self-weight is only 1/4 of brick-concrete structure .

Standardized design and modularized concept leads to a shorter period and more convenient construction.



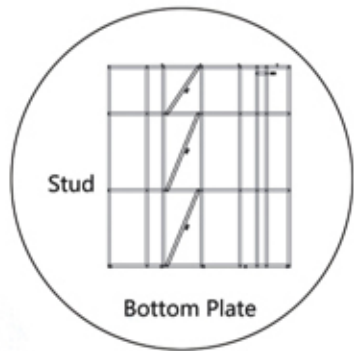
Comfortable and Aesthetic



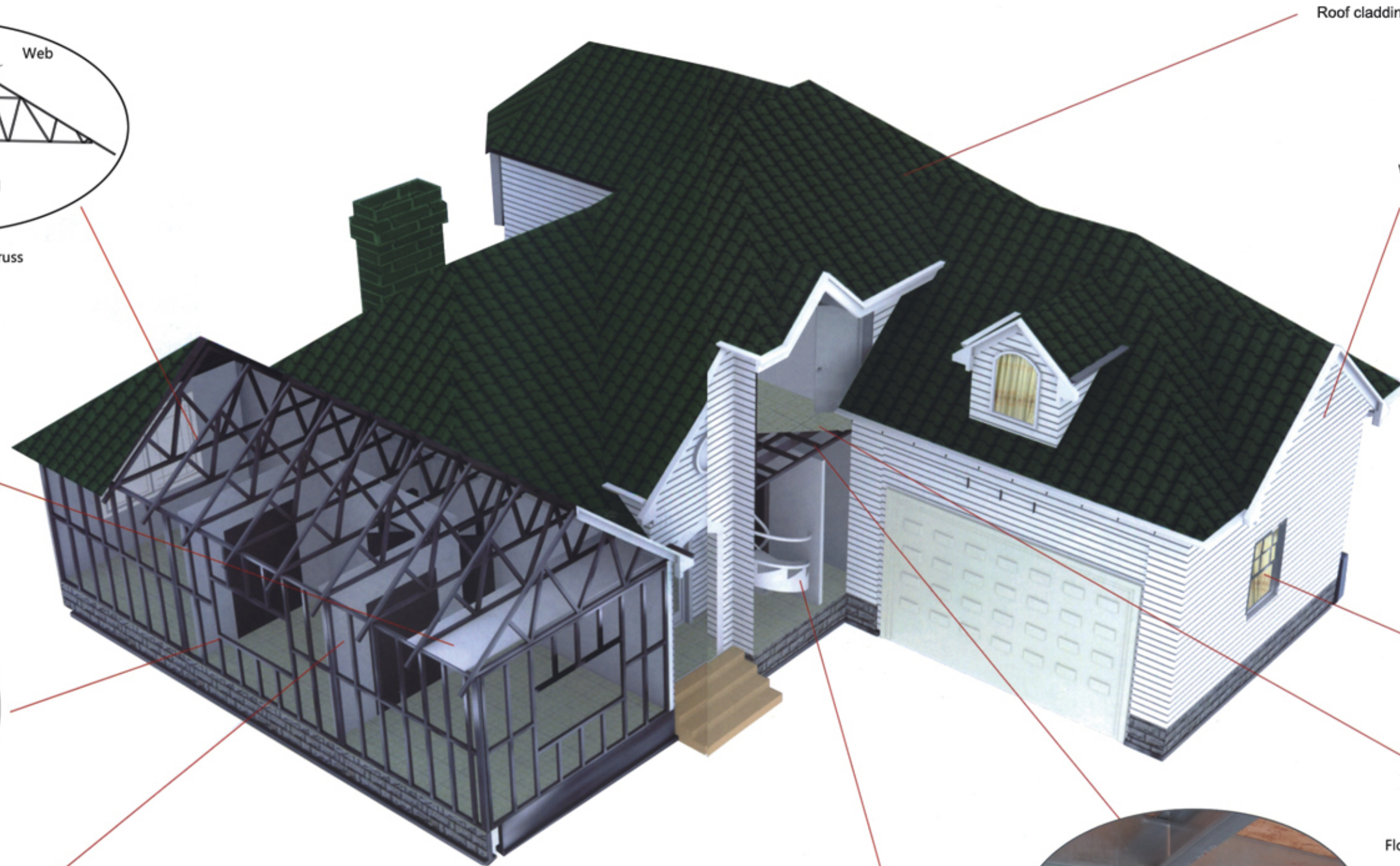


roof truss

Ceiling uses plasterboard



Partition Wall uses plasterbord



Roof cladding can use metal tile.

Wall cladding options: culture stone  
fiber cement board  
color steel

Perfect to use hollow glass

Floor can choose wood floor, floor tile, carpet

Steel Stair, Wood Stair



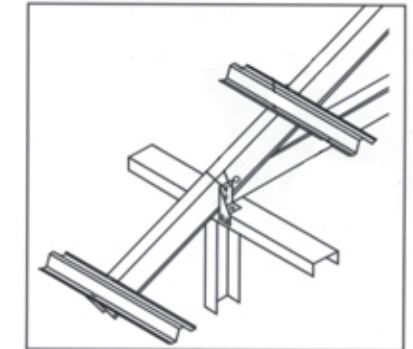
Stud Floor

Roof Profile

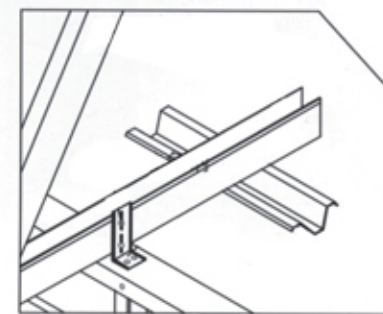
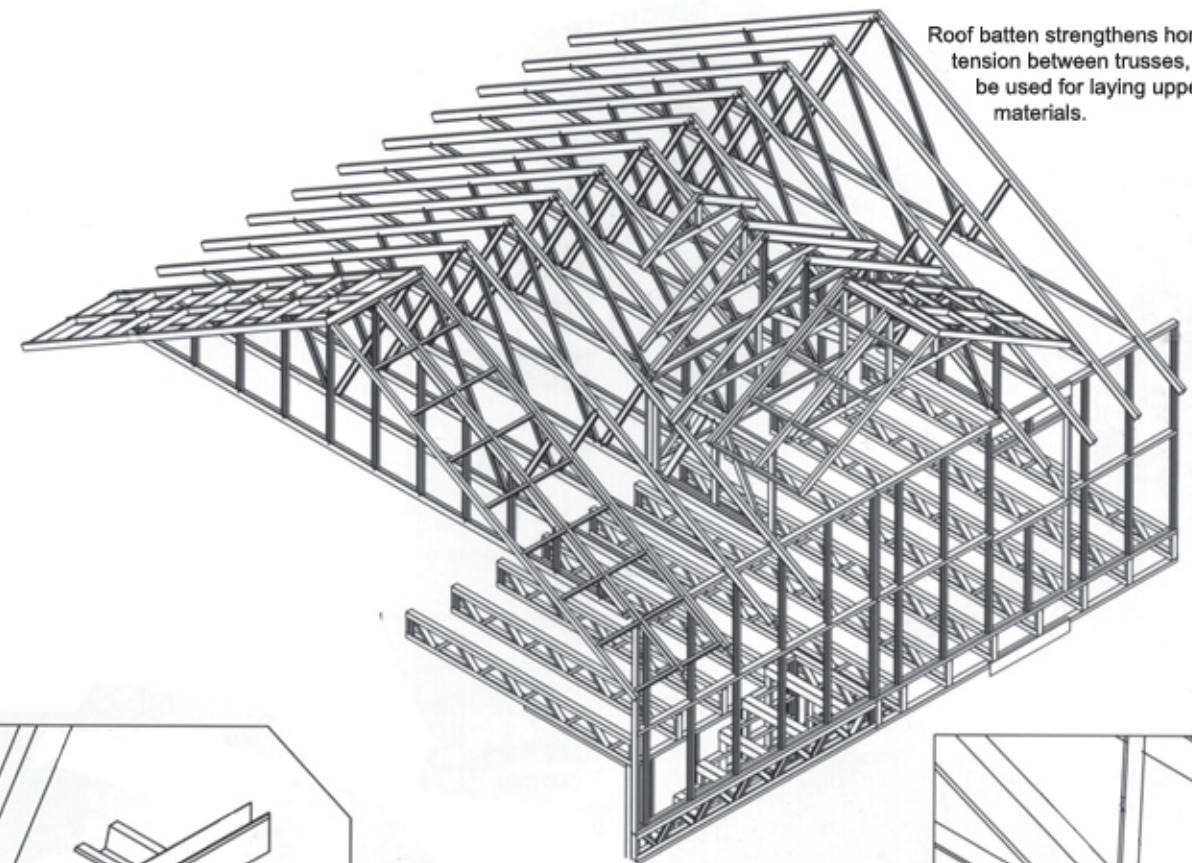
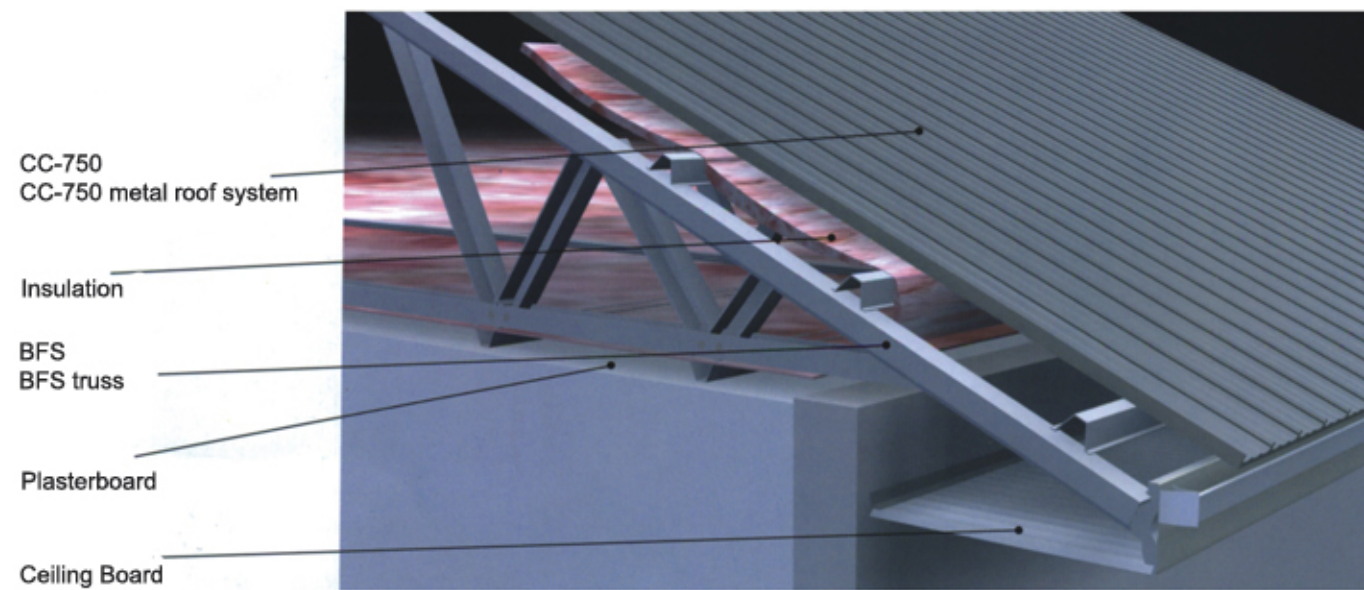


We offer complete metal tile roof system. Our metal tile comes in many aesthetic design with superior insulation performance.

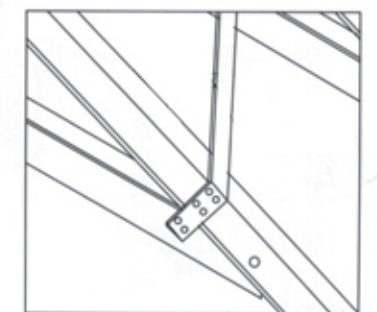
Roof Details



Roof batten strengthens horizontal tension between trusses, and can be used for laying upper roof materials.



Easy to fix plasterboard to use ceiling batten.



X-bracing guarantees more stable structure.



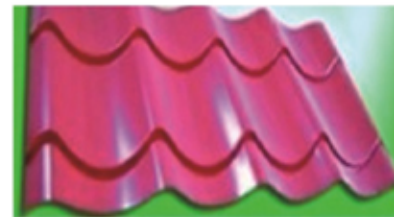
OSB Board



XPS Board



Vapor Barrier

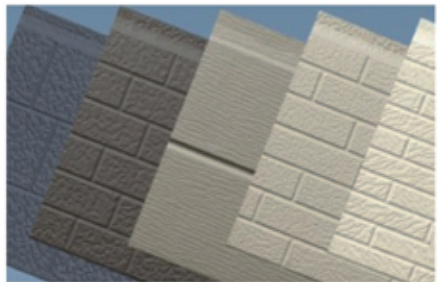
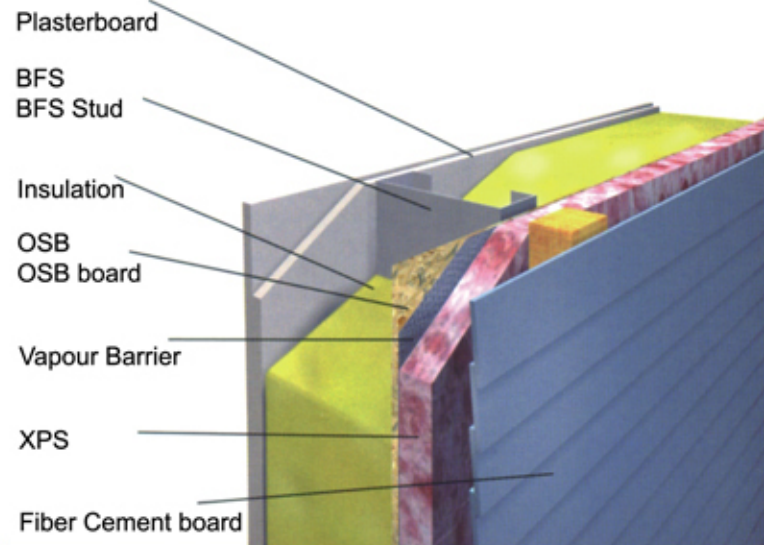
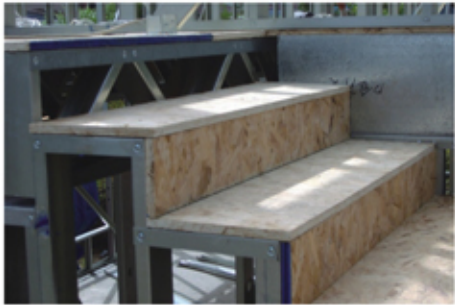


Metallic glazed tile

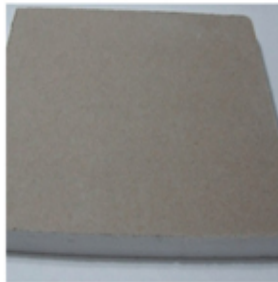
Wall Profile



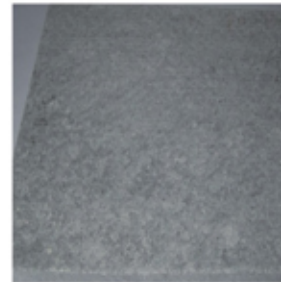
We integrate the inner insulation material with outer waterproof, siding and finishing. It meets the requirement of energy-saving and acoustic insulation performance and provides a variety of visual effect on the building facade.



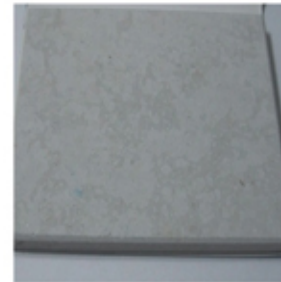
Metal wall panels



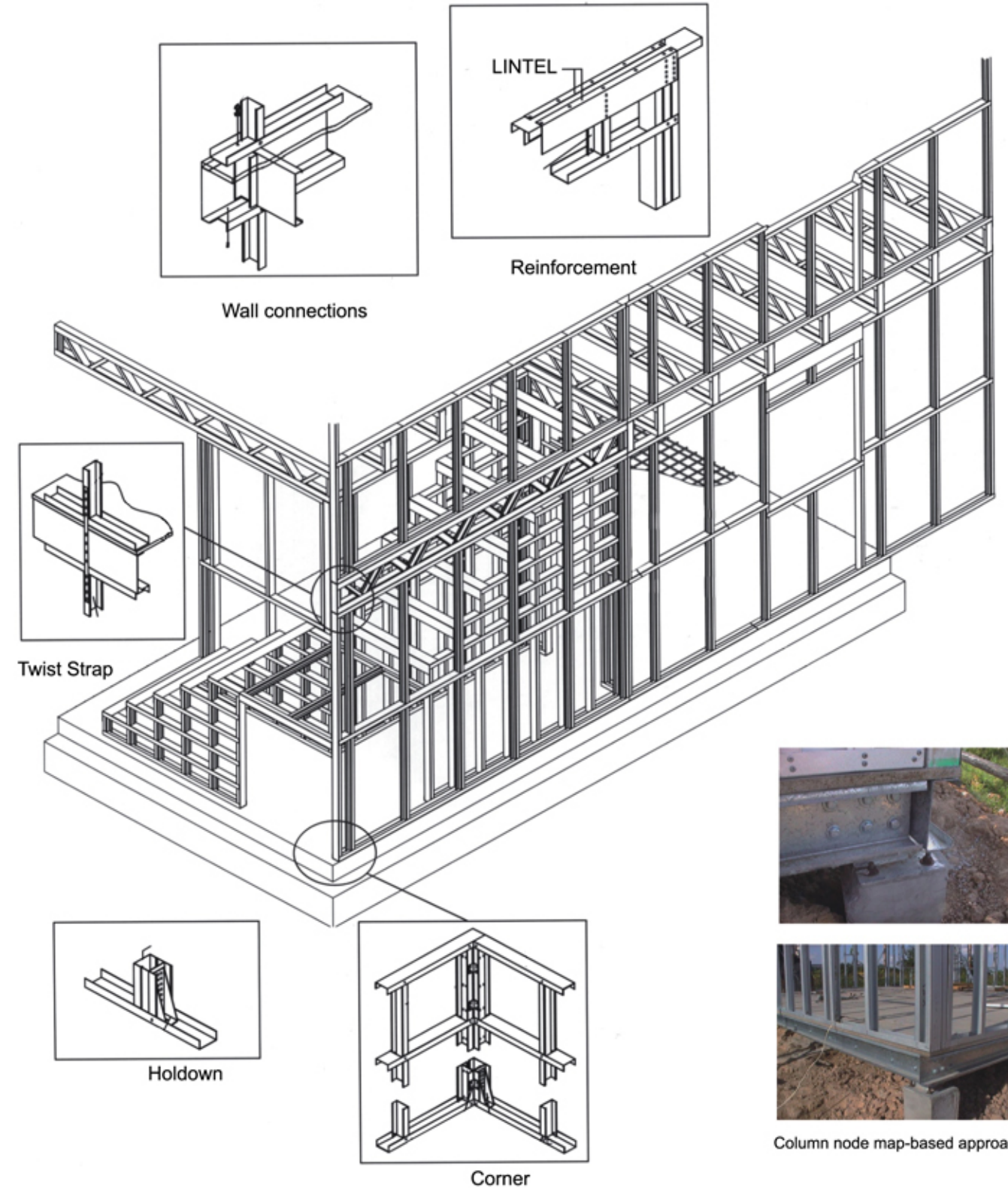
Metal wall panels



cement fiber board



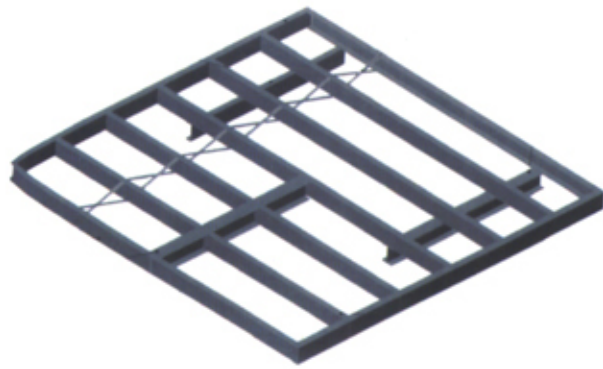
calcium silicate board



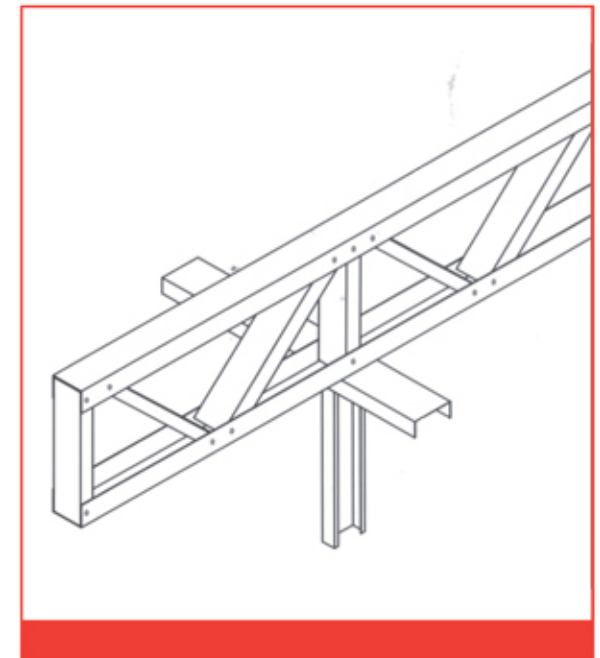
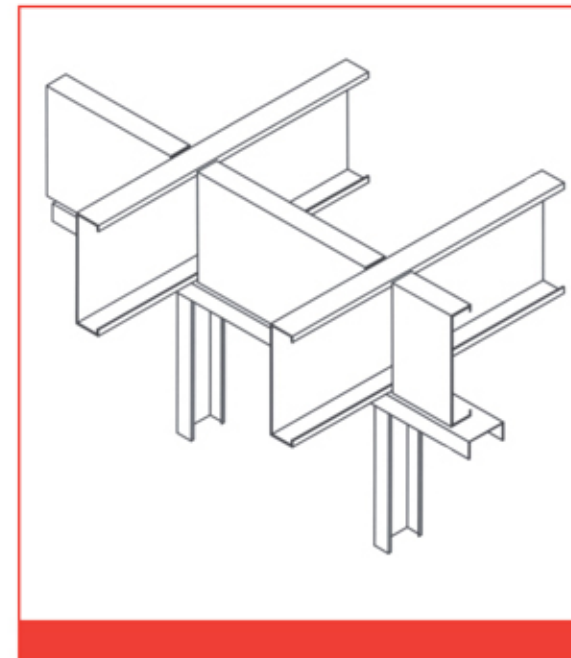
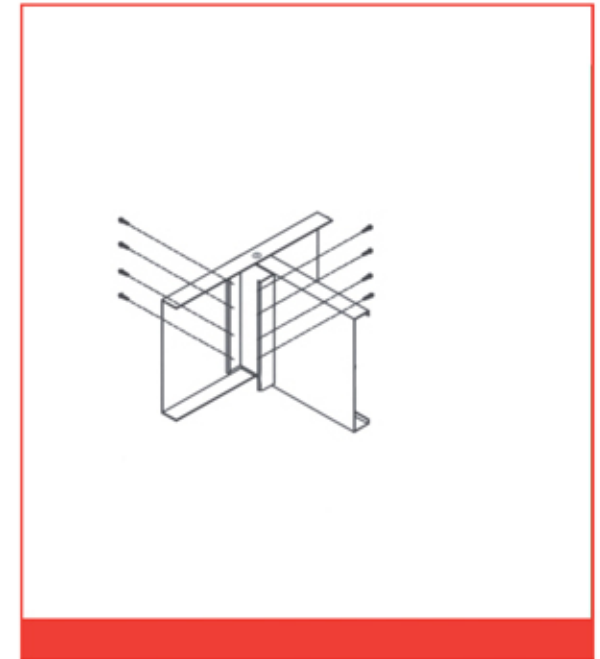
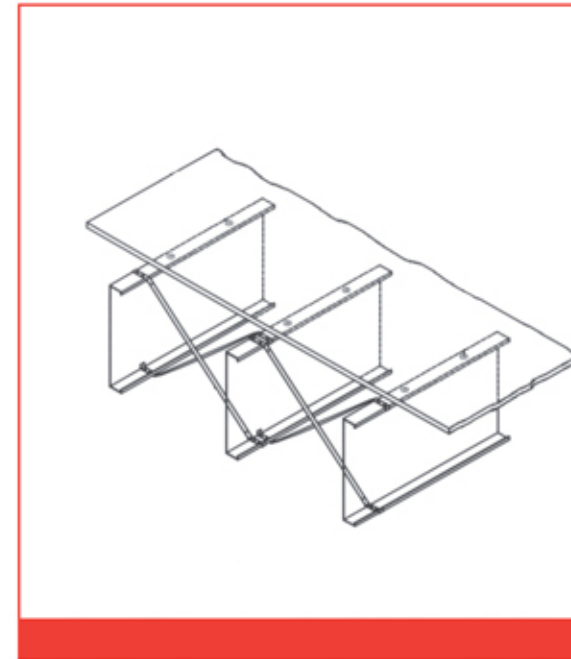
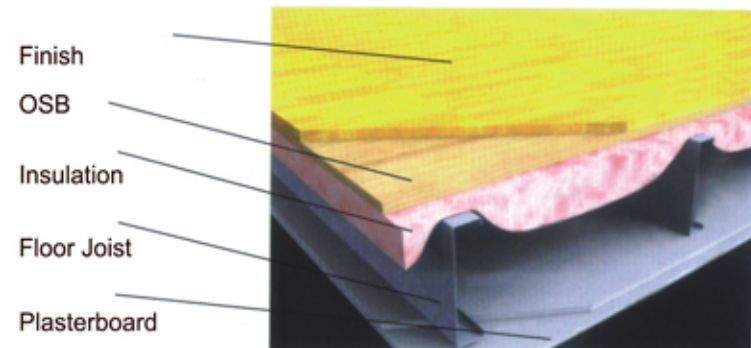
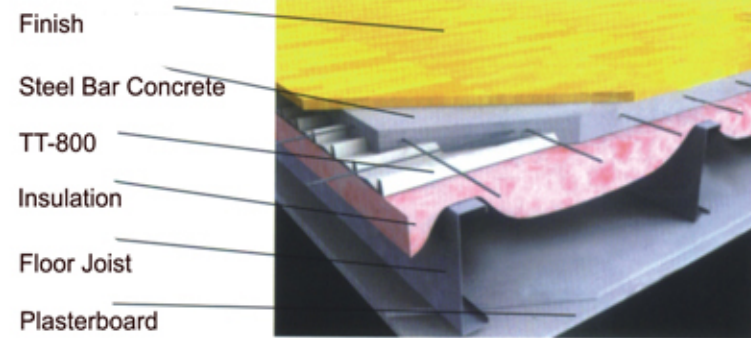
Column node map-based approach

Floor Profile

After finishing the installation of floor, it goes to the upper structure. Even if there is concrete, it doesn't affect other structure and the installation of cladding material. Along with our specialized floor supporting system, it achieves excellent acoustic and insulation performance



Facilities and lines hide in the stud



**Dead Loads Used for Design**

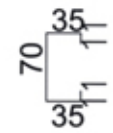

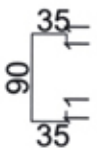
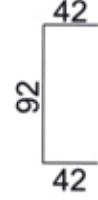
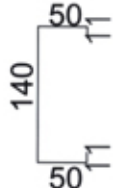

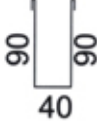
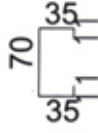



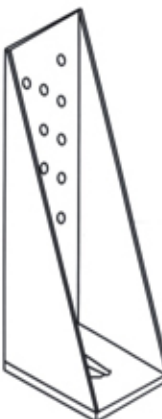



| Location Type     |                   |            | Total Load |
|-------------------|-------------------|------------|------------|
| Sheet Roof        | 0.48mm 0.48 Sheet | 0.08       | 0.20kpa    |
|                   | OSB Cladding      | 0.06       |            |
|                   | Accessories       | 0.06       |            |
| Tile Roof         | Terra Cotta Tiles | 0.56       | 0.72kpa    |
|                   | OSB Cladding      | 0.06       |            |
|                   | Accessories       | 0.1        |            |
|                   | Total             |            |            |
| Truss Self Weight |                   |            | 0.06kN/m   |
| Ceiling Weight    | Plasterboard      | 0.10       | 0.16kpa    |
|                   | Accessories       | 0.06       |            |
|                   | Total             |            |            |
| Floor Self Weight | Floor Framing     | 0.12       | 0.49kpa    |
|                   | Floor Sheeting    | 0.15       |            |
|                   | Accessories       | 0.22       |            |
|                   | Total             |            |            |
| Wall Self Weight  | Plasterboard      | 2x0.13     | 0.48kpa    |
|                   | Wall Weight       | 0.08       |            |
|                   | OSB Cladding      | 2x0.06     |            |
|                   | Accessories       | 0.02 +0.20 |            |
|                   | Total             |            |            |

**Roof Snow Loads**

| Location                    | Load    |
|-----------------------------|---------|
| Intermediate Roof Snow Load | 0.0kpa  |
|                             | 0.85kpa |
| Eavel Snow Load             | 0.0kpa  |
|                             | 0.20kpa |

**Basic Wind Speeds and Factors**

| Item                                  | Load          |
|---------------------------------------|---------------|
| Permissible Wind Speed                | 40 and 45m/s  |
| 40m/s Deisgn Wind Pressure for 40m/s  | 0.864kpa      |
| 45m/s Deisgn Wind Pressure for 45m/s  | 1.093kpa      |
| External roof coefficients            | -0.90, + 0.40 |
| Internal roof coefficients            | +0.20,-0.30   |
| External roof coefficients at eaves   | -1.8          |
| Internal roof coefficients at eaves   | +0.20         |
| External wall coefficients            | +0.70         |
| Internal wall coefficients            | +0.30         |
| External wall coefficients at corners | -1.30         |
| Internal wall coefficients at corners | +0.20         |

|  |   |  |  |
|--|---|--|--|
| <br>C7008         | <br>P7008                  | <br>C9008                     | <br>P9008 |
| <br>C14008        | <br>P14008                 | <br>U9008                     | <br>C7008 |
| <br>L20015      | <br>R(C)B 3809(48)       | <br>Brace Tensioner         |         |
| <br>Triple Grip | <br>Girden Truss Bracket | <br>Wall Connection Bracket |  |

Note: To ensure the accuracy of assembly, the required component internal Radius should be no more than 3mm, and the allowable error of main section dimension should be less than ± 1mm.

