

GREEN URBAN DEVELOPERS

(Introduction)

PREFABRICATED BUILDING SYSTEMS *using low-cost "Eco-friendly" building materials*

Fire, water, sound, impact proof, termite & mold resistant. Non-toxic, energy efficient, low cost materials & easy to install

Disaster relief, low-income housing, condos, villas, apartments, gated-communities, commercial, residential, industrial, military, army, fire services, airports, ferry & rail terminals, vacation resorts, hotels, warehouses, factories, hospitals, dorms



PSB Singapore



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INSTALLATIONS





OUR COMPANY





Use of Self Tapping Screw on Connection.

UGANDA AFRICA HOUSING PROJECT

What makes W&A Green Building System Product different?

1. Fire Resistant
2. Water Resistant
3. Sound Insulation
4. Thermal Insulation
5. Impact Resistant
6. Mold Resistant
7. Termite Resistant
8. Freeze Thaw Tolerance
9. Non Toxic
10. Easy to install



ENERGY EFFICIENT



NOISE RESISTANT



NON RADIO ACTIVE



WATER RESISTANT



FIRE RESISTANT



RECYCLABLE





SOCIAL ECONOMIC BENEFIT





Social economic benefit of using "Green Building Systems"

The Sustainability Age in Construction arrived several years ago but it was only until recently that the industry turned towards looking at it seriously due to Climate Change. The built environment has a vast impact on the natural environment, human health, and the economy. By adopting green building strategies, we can maximize both economic and environmental performance. Green buildings use 30 percent less energy on average than a standard building. Potential benefits of green building can include.

Environmental benefits

- Enhance and protect biodiversity and ecosystems
- Improve air and water quality
- Reduce waste streams
- Conserve and restore natural resources

Economic benefits

- Reduce operating costs
- Create, expand, and shape markets for green product and services
- Improve occupant productivity
- Optimize life-cycle economic performance

Social benefits

- Enhance occupant comfort and health
- Heighten aesthetic qualities
- Minimize strain on local infrastructure
- Improve overall quality of life





OUR PRODUCT





Our Next-Generation Building Materials Place Less Stress on Earth

Lightweight construction and structural resilience do not have to be mutually exclusive. Eco-friendly yet cost effective buildings can be possible, through the principles of sustainable design and next-generation technology. Develop through years of field-tested research and continuous innovation, our proprietary building materials (Besta™ Boards, Besta™ ALC Panel, Main and secondary steel columns and beams) offer unmatched durability and strength, while reducing the dead load of the structure to improve earthquake-resistance.

In addition, the transport of lightweight components consumed less energy, while with our pre-fabricated elements cause less waste, and the raw materials used such as steel are fully recyclable.





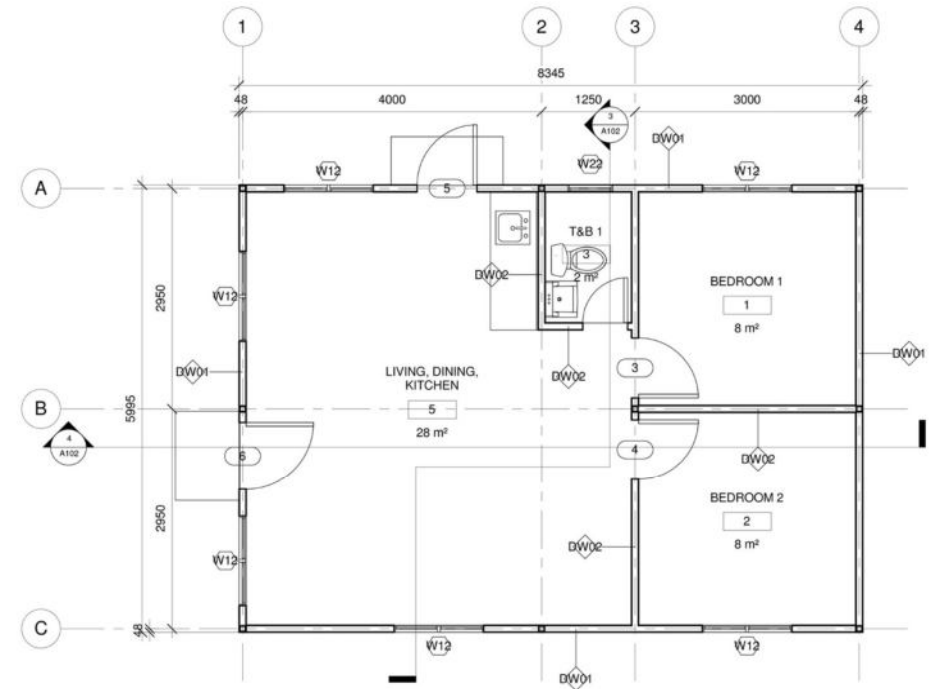
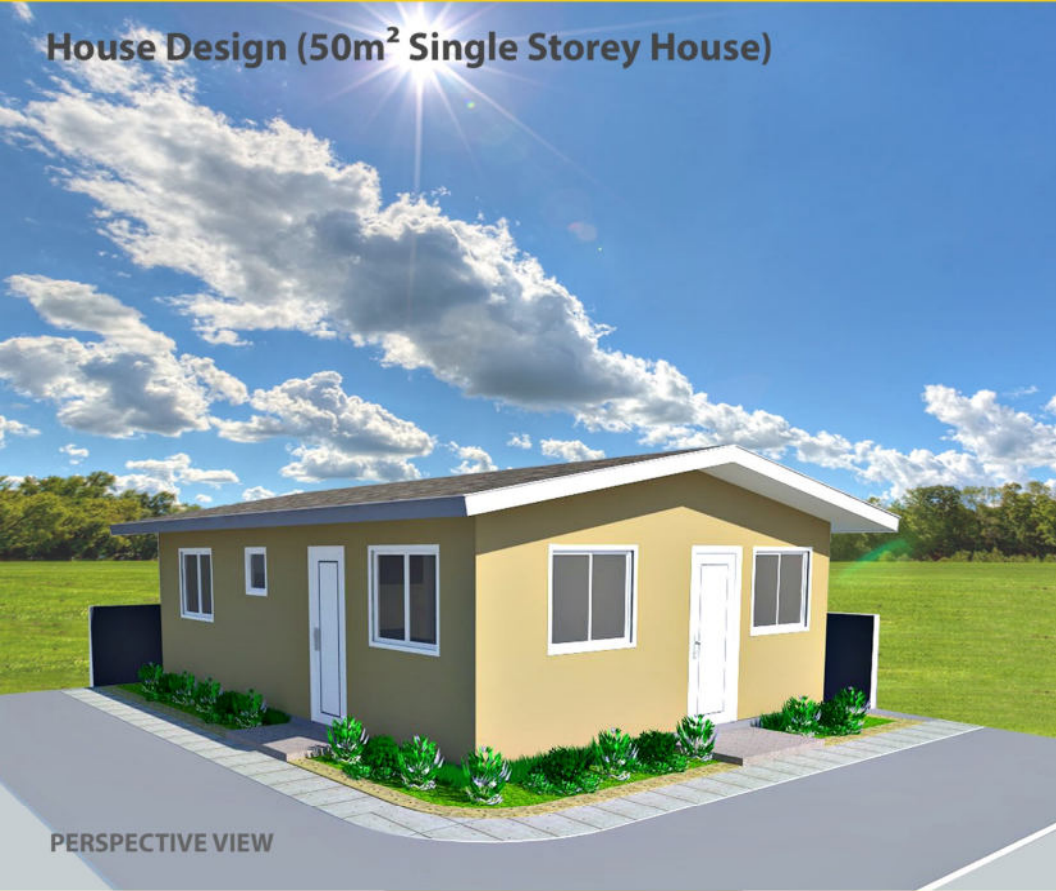
OUR MODEL UNIT

Architectural Design & Specifications





House Design (50m² Single Storey House)



FLOOR PLAN - 2 BEDROOM HOUSE



SPECIFICATIONS

1. FOUNDATION

Concrete Matt Floor Foundation

2. STRUCTURE

80 X 80 Q235 Steel Hollow Section - Column
75 x 100 Q235 Steel Hollow Section - Beams
Light steel gauge on Roof Trusses and Purlins

3. ROOF

Double pitch roof in asphalt shingles
Substrate: 12mm Besta™ Board
Finishes: Asphalt Shingles

4. WALLS

95mm thk EXTERNAL DRY WALL SYSTEM
External Side: 10mm Besta™ Board
Internal Side: 10mm thk Besta™ Board

95MM THK INTERNAL DRY WALL SYSTEM

Dry Area: 10mm Besta™ Board
Wet Area: 10mm Besta Board

5. CEILING

6mm Besta™ Board flat ceiling on 2500mm high on galvanized metal furring.

6. FINISHES

WALLS

External Wall -2 coats of paints
Internal Wall -2 coats of paints
Toilet & Bath -1800mm high ceramic tiles on shower area.
-1200mm high ceramic tiles on WC and Lavatory area.

FLOORS

Common Areas -Timber Look Vinyl Tiles
Bedroom -Vinyl Tiles
Toilet & Bath -300 x 300mm Ceramic Tiles

7. DOORS

Entrance Door -900 x 2100mm MDF paper honeycomb infill panel door.
Exit Door -800 x 2100mm MDF paper honeycomb infill panel door.
Bedroom Door -800 x 2100mm MDF paper honeycomb infill panel door.
Toilet and Bath Door -PVC door panel.

8. WINDOWS

Window 01 (W01) -1200 x 1200mm 13 blades glass louver window
Window 02 (W02) -600 x 600mm 6 blades glass louver window

9. SANITARY WARES & FITTINGS

Common Toilet & Bath -Flush type water closet
-Wall hung lavatory
-Shower mixer with faucet

Kitchen

-Single bowl kitchen sink with faucet

10. ELECTRICAL

Refer to electrical drawing

11. PLUMBING

Refer to plumbing drawing

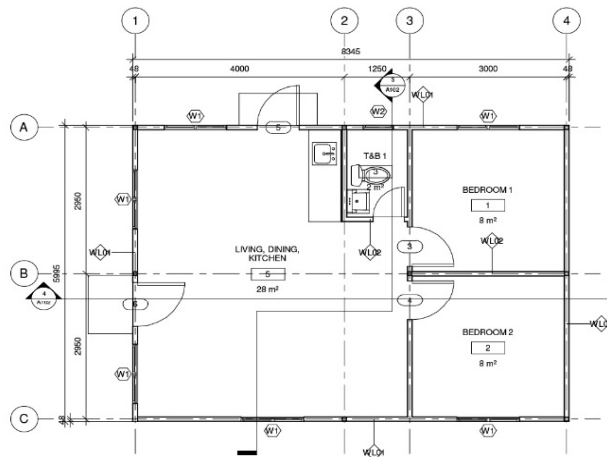


SECTION VIEW

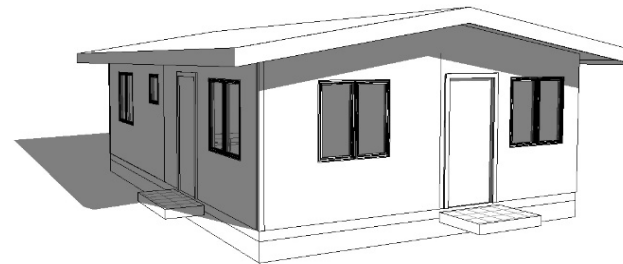


TOP VIEW

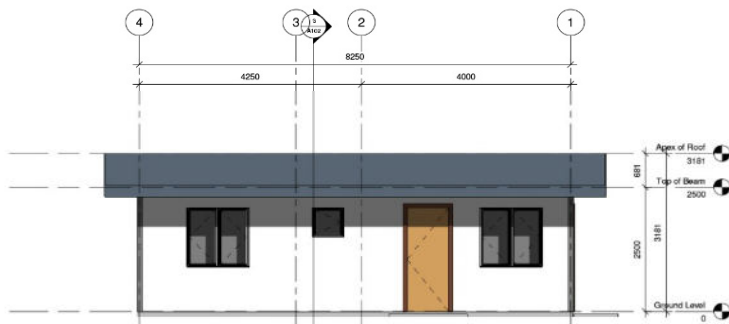




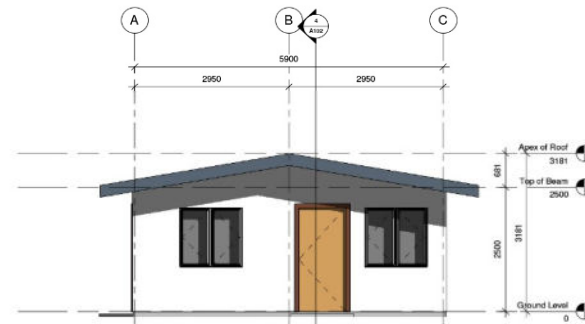
1 Ground Level
1 : 40



2 3D View 1



3 North
1 : 40



4 West
1 : 40

- SCALE:
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REV. NO.	DATE	REVISIONS	REV. BY

REVISIONS AND ISSUES

CLIENT

DESIGN

Well and Able International Pte. Ltd.

JOB TITLE

W&A Building System

DRAWING TITLE

As Shown

PROJECT NO. :

DATE	DRAWN	DESIGN	CHECKED	APPROVED

SCALE

1 : 40

DRAWING SHEET NO. :

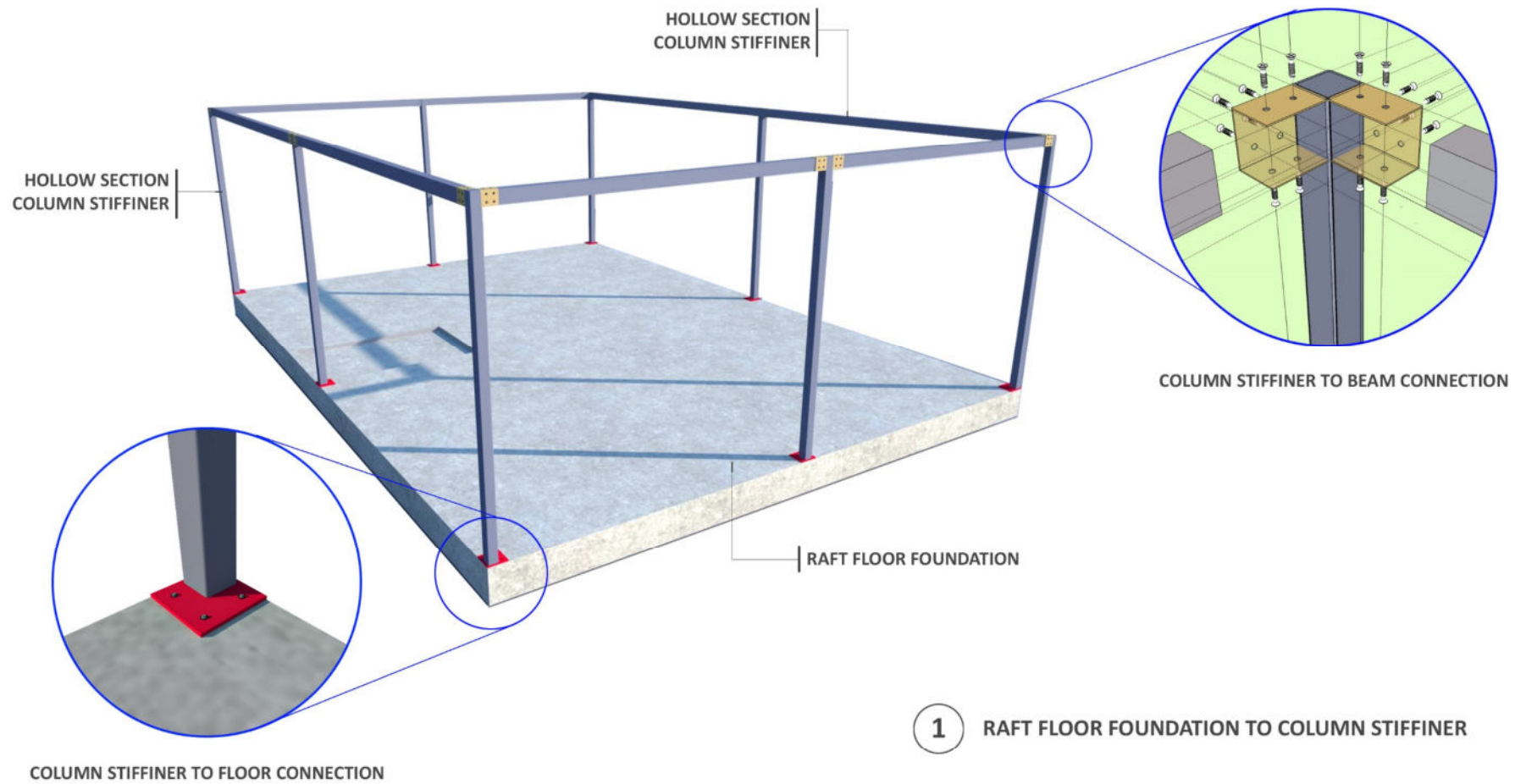
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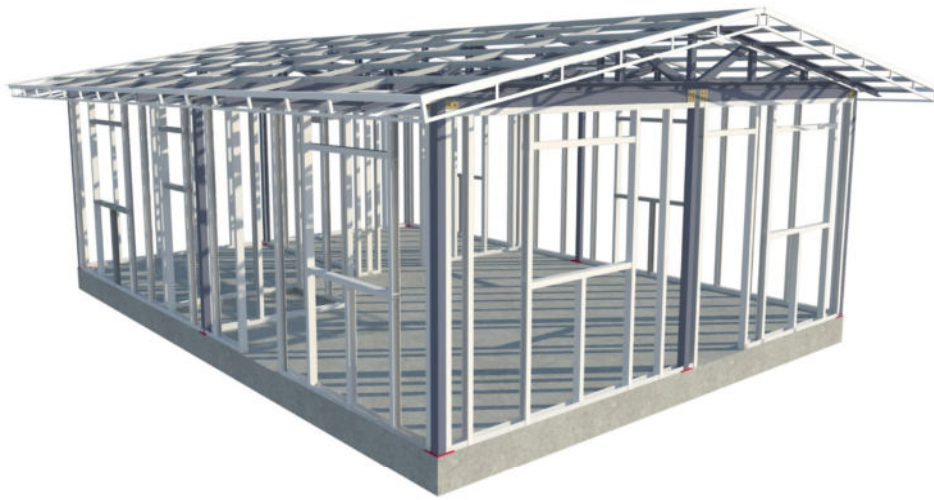
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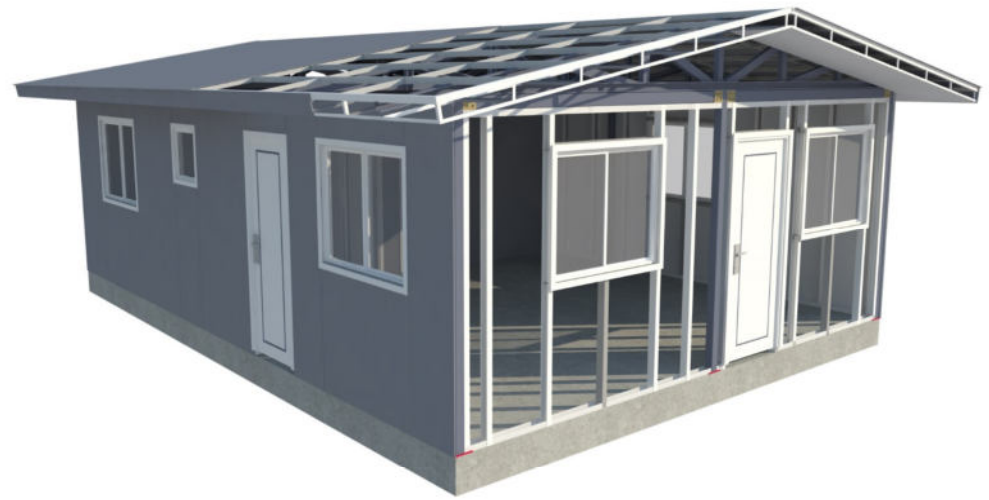
STRUCTURAL APPROACH







2 COMPLETED STEEL STRUCTURE FRAMING



3 ROOF, SIDINGS, DOORS AND WINDOW INSTALLATION





METHOD OF STATEMENT

Installation Sequences





1.) Formworks at Raft Foundation



2.) Casting of Raft Foundation





3.) Erection of Steel Columns & Beams



4.) Metal frame installation and Steel trusses





5.) Roofing installation and Wall Framing Closure





6.) Project Completion



Productivity Rate:

Buildup Area: 105 m²

Site Work:

Excavation: 560 m³
Backfill : 448 m³

Concrete Works:

Slab: 16 m³
Tie Beam: 1.73 m³
Neck Column: 0.42 m³
Footing: 21 m³

Rebars on Foundation:

Approx: 2.8 Tons

Super Structure:

Approx. Steel Struct: 2.0 Tons
External Besta™ Wall: 126 m²
Internal Besta™ Wall: 91 m²

Activity	Nos. of Days	Nos. of Workers			
Site Work					
Excavation	4	1 LM	4 H		
Backfill	2	1 LM	4 H		
Rebars & Concrete Works					
Slab	2	5 SM	2 M	3 H	
Tie Beam	2	5 SM	2 M	3 H	
Neck Column	2	5 SM	2 M	3 H	
Footing	2	5 SM	2 M	3 H	
Super Structure					
Steel Structure	1	2 SM	3 H		
External Wall	3	2 C	4 H		
Internal Wall	2	2 C	4 H		
Roofing	1	2 C	4 H		
Ceiling	2	2 C	3 H		
Doors & Window	3	2 C	3 H		
Legend:					
LM	Leadman				
SM	Steel Man				
M	Mason				
C	Carpenter				
H	Helper				





WORLD WIDE INSTALLATIONS

Sri-Lanka, Malaysia, Philippines, South Africa, Uganda, Maldives, Australia, Papua New Guinea, Singapore, China, Mauritius, Thailand ...

Over 250+ projects completed world-wide

Factories, warehouses, vacation resorts, prestige houses, hotels, offices, apartments, low-income homes, condos, villas, townhouses, military barracks, dorms, island development etc.



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LOW INCOME HOUSING - (50+ models)

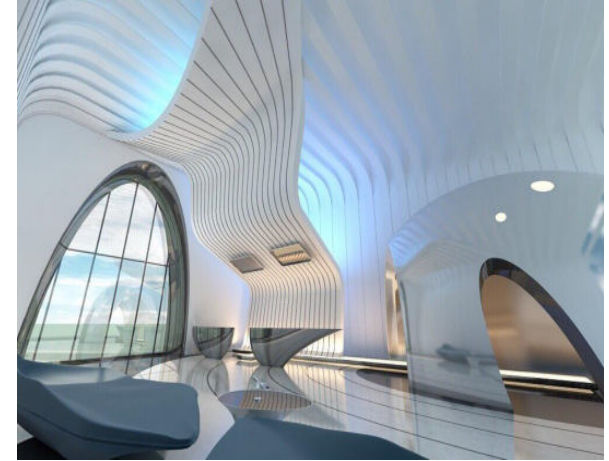


NEW DESIGNS - DUPLEX

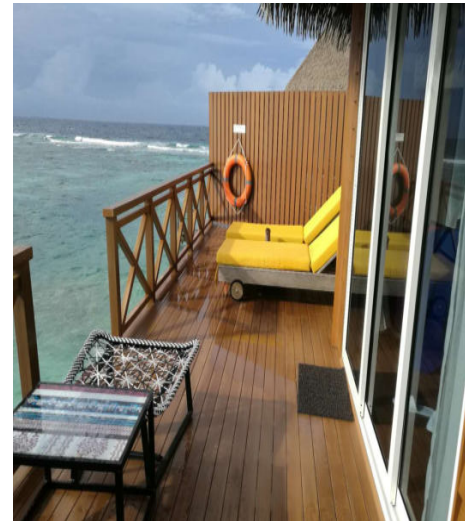


VACATION RESORTS

THAILAND



MALDIVES



HOTELS, APARTMENT (Shopping complex)

SHANGHAI



SHANGHAI



VIETNAM



SINGAPORE



SINGAPORE



AUSTRALIA



RAPID DISASTER RECOVERY UNITS - TEMPORARY HOUSING, FLOOD RESISTANT UNITS

notes :

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are replaced by
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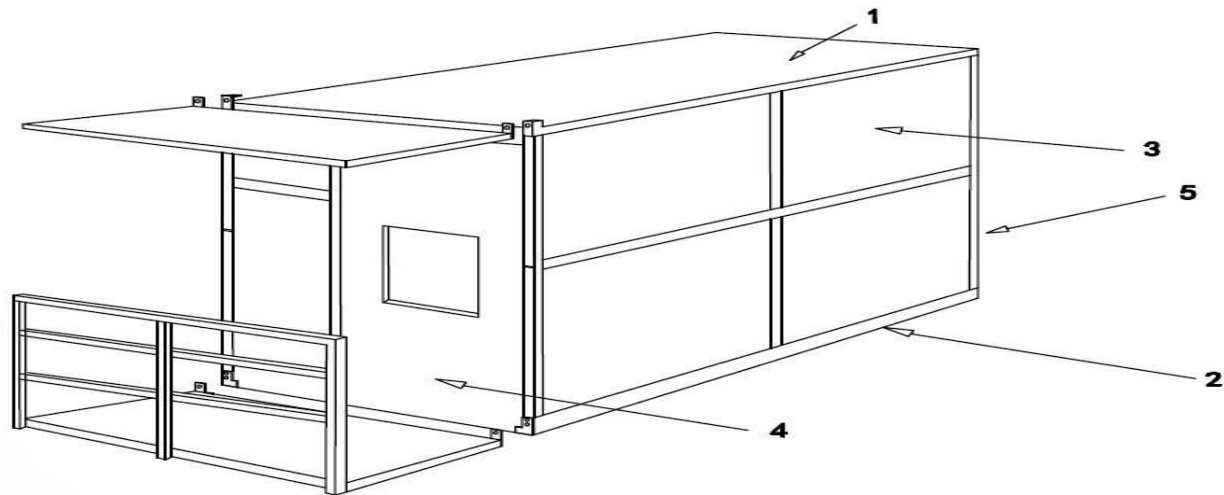
1 roof

2 chassis

3 wallboard

4 front door panel

5 the rear window board



Folding box stereogram

FLOODING PROOF UNITS

