## Personal Information

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Red line Railway System, Rangsit
Competition

## Elasticity

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Work Experience
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Wireless Rd., Pathum Wan, Bangkok
ASA Dwelling Element (TADAH)
ASA Expo 2017
GEO Ladprao (TADAH)
Chatuchak, Bangkok
Other Skills
Other Works

## Study Project

TU Station Masterplan
Red line Railway System, Rangsit



Before


- Big Box Supermarket - DepartmentStore Entertainment
- IT Center

For the TOD Design should be base on 7 step to design the masterplan

1) Determine type of place
2) Locate the commercial center
3) Plan the pattern of district
4) Adjust to existing feature
5) Structure the public realm
6) Connect the center
7) Infill between the main thoroughfares




Masterplan Detail

- Talard Detail
- Thai Urban Detail

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## Competition

Elasticity

Earthquakes had destroyed buildings, taking lives and costing huge amounts in repair. The development of earthquake architecture hopes to counter this. Dwellers design their houses to handle earthquake effects with more stable and flexible structure made by steels. Topped with rubbers and plastics, those houses were built with few doors and windows to prevent being injured by falling building parts. Does this spark your ideas?


## Elastic

The earthquake-resistant building is able to withstand earthquake forces if the structure has elastic support system. The construction, which is connected wings to the main structure with rubber, will not deform or collapse during earthquakes. It allows the building to move independently.


Material
Metal rubber is a broad, informal name for several conductive plastic polymers with metal ions produced by NanoSonic, Inc, in cooperation withVirginia Tech. This self-assembling nanocomposite is ultra flexible and durable to high and low pressures, temperatures, tensions, most chemical reactions, and retains all of its physical and chemical properties upon being returned to aground state. Metal rubber can be used to build the earthquake-resistant building.

## Space Algorithm

Space Algorithm and Parametric design
Space is divided into four patterns of vertical and horizontal
connecting. Residential area is a big part, public area is addition.


## Core Algorithm

## Core Algorithm and Parametric design

The core of building is divided according to the structure used for the rubber at the 4 corners making 4 core joints with the same position on the structure of the building. This structure is built by stacked unit, which is putting up a vertically.

Rubber mounting at the core of structure
The structure is fixed together with the layers of unit by the rubber in vertical direction.


Rubber mounting at the comer of structure


Aubber mounting at the middle of structure


Rubber mounting outside the structure of the building

isometric 1

isometric 2

plan 2

isometric 3

plan 3

isometric 5

isometric 4


plan 4
plan 5
isometric 6

plan 6

isometric 7

plan 7

isometric 8

plan 8

## Earthquake Resistant System

Securities and Evacuation system
Securities and Evacuation System is divided into 2 types by levels of earthquake's vibration which are slight earthquake and severe earthquake. In case of slight earthquake residents can migrate to the safest area, which is the central unit stretching with the building, to escape the vibration around the building. If the incident turns to be severe earthquake, residents have to evacuate from the building immediately by the elevator located at the four cores of the building structure.


In case of the slight - moderate earthquake
Residents can migrate to the safest area, which is the central unit stretching with the building, to escape the vibration around the building.


In case of the severe earthquake
Residents have to evacuate from the building immediately by the elevator located at the four cores of the building structure.

## Special issues

This guidance is prepared for forecasting the seismic incident or any forces that could affect to building in the future.


In case of the slight earthquake
The building will be stable without vibration, due to the flexibility of the rubber curb. Few forces are
transferred to the building, because the building will absorb the vibration energy.


In case of the moderate earthquake
The vibration will occur 3 periods,
because the building structure is
divided into 3 parts in vertical direction.


In case of the severe earthquake
The whole building will be shaken by the vibrations.

## Expansion Joint

The connecting points of the building structure are made by rubber, assembling with damper at the base building. This helps in further reducing the seismic response of the building.





## SKYSCRAPER COMPETITIOX

## Project Description

eVolo is pleased to invite students, architects, engineers, designers, and artists from around the globe to take part in the eVolo 2012 Skyscraper Competition. Established in 2006, the annual Skyscraper Competition is one of the world's most prestigious awards for high-rise architecture. It recognizes outstanding ideas that redefine skyscraper design through the implementation of novel technologies, materials, programs, aesthetics, and spatial organizations along with studies on globalization, flexibility, adaptability, and the digital revolution. It is a forum that examines the relationship between the skyscraper and the natural world, the skyscraper and the community, and the skyscraper and the city.

The participants should take into consideration the advances in technology, the exploration of sustainable systems, and the establishment of new urban and architectural methods to solve economic, social, and cultural problems of the contemporary city including the scarcity of natural resources and infrastructure and the exponential increase of inhabitants, pollution, economic division, and unplanned urban sprawl.

## Design Concept

In the present, the natural disasters has occurred around the world such as earthquake, flood and Tsunami. All of these things affect the habitats and likely to be more violent than ever.

The new building called "Yggdrasil" has formed to be new settlement for the humanity that supports the impact of natural disasters and also changes the force from disasters to be secondary energy into the building.

By using metal rubber, a nanotechnology material, that use in the aerospace building industrial, as a main building material will make the building's core and structure highly flexible and durable to pressure, temperature, and tension. Normally, the higher the building gets the stronger the wind load it'll have. But for the Elasticity, when faces the wind, instead of trying to resist it, the flexibilities of the structure will allow the building to sway slightly, like trees branches.


The human has to move their settlement in the vertical line.


The ground below recovers quickly and become to be green area for the building.



## Work Experience

Glass House @ Sindhorn (Office AT)
Wireless Rd., Pathum Wan, Bangkok

## Design Concept


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Translucent / Porous
Transparent/Solid


Ventilation





## Work Experience

## ASA Dwelling Element (TADAH)

ASA Expo 2017

Dwelling Elements
Based on Larry Sass's "Instant House" (2004) study to reduce construction concerns by using Digital Technology to send files to "Print" at the destination by laser cutter. From this idea TADAH has developed with emphasis on construction details. We use 15 mm plywood as material. Send the file to the CNC machine and assembly parts at the work site. Without the use of glue or nail.


## TADAH Door

We design the door by focus on pivot points to avoid finished hinges. And become to the series of wood pivots and joints in the door.

## TADAH Wall

We designed the walls to be ventilation. It has internal air to prevent heat from outside. And control the airflow by mechanical but remain privacy space.

Booth Setup



TADAH Wall


## Work Experience

GEO Ladprao (TADAH)
Chatuchak, Bangkok







Feasibility Study
GFA / NSA / EIA


Team Management


Detail


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Detail
Mosinn too Drop thu
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Site Coordination

Work Experience

Other Works

## Housing



## Condominium



## Residential



