ECO-SYSTEMS + IMMORTALITY

IUS GBC 2016
KUALA LUMPUR

AR DR TAN LOKE MUN

Human Population Growth (AD 1 to 2013)

Billions

- 250 million (AD 1)
- 1 Billion (1801)
- 2 Billion (1927)
- 3 Billion (1955)
- 4 Billion (1974)
- 5 Billion (1987)
- 6 Billion (1999)
- 7 Billion (2013)
HOW FAST ARE WE GROWING???

Currently . . .

at birth rate of approx. **225,000** people/day

Or

1 billion / 13 years
IS THERE ANOTHER WAY?
THE GBI RATING TOOLS

NON-RESIDENTIAL

Non-Residential buildings are those parts of buildings that are commercial, institutional, educational or industrial in use. The criteria for the rating of non-residential buildings under the green building rating system are based on the following:

- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Innovation
- Management

RESIDENTIAL

Residential buildings are those parts of buildings that are intended for human habitation. The criteria for the rating of residential buildings under the green building rating system are based on the following:

- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Innovation
- Management

GBI POINTS ALLOCATION CHART (NON-RESIDENTIAL)

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>25</td>
</tr>
<tr>
<td>Water Efficiency</td>
<td>15</td>
</tr>
<tr>
<td>Indoor Environmental Quality</td>
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<td>Innovation</td>
<td>15</td>
</tr>
<tr>
<td>Management</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
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GBI POINTS ALLOCATION CHART (RESIDENTIAL)

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<td>Total</td>
<td>100</td>
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</tbody>
</table>

For more information please contact us at info@greenbuildingindex.org

NEW LIFE FOR OLD

PLUGGING THE LEAKS IN EXISTING BUILDINGS

26 APRIL 2010

LAUNCH OF THE GBI - EXISTING BUILDING RATING TOOL

WHAT is a Green Building?

A Green Building focuses on increasing the efficiency of resources used - energy, water and materials - while reducing harmful impact on human health and the environment. It addresses the building's energy efficiency, air quality, health and safety, water conservation, and indoor environmental quality, providing better living conditions and greater comfort for the occupants.

THE GBI NREB RATING TOOL

Non-Residential Existing Building (NREB) evaluates the environmental aspects of existing non-residential buildings. The criteria for the rating of non-residential existing buildings under the green building rating system are based on the following:

- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Innovation
- Management

GBI POINTS ALLOCATION TABLE (NREB)

<table>
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<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
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</tbody>
</table>
THE REALITY OF MORTALITY

IN THE END WE ... DIE

IMMORTALITY
VITAMINS / SUPPLEMENTS
EXERCISE / HEALTHY LIVING
LEGACY
FOUNDATION
PHILANTHROPY
GENETIC CONSERVATION
CRYONICS

...
SUSTAINABILITY VS SUFFICIENCY

LIFE CYCLE ANALYSIS

PROPERTY/ASSET

US-ER

OWNERSHIP

STEWARDBSHIP
LIFE CYCLE ANALYSIS

<table>
<thead>
<tr>
<th>OWNERSHIP</th>
<th>STEWARDSHIP</th>
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<tbody>
<tr>
<td>WANTS</td>
<td>NEEDS</td>
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<td>MORE</td>
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<td>INCREASE</td>
<td>ENOUGH</td>
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<td>CONSUMPTION</td>
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<td>COMPETE</td>
<td>COMPLEMENT</td>
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SUSTAINABILITY

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SUFFICIENCY

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<th>EASTERN</th>
</tr>
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<tbody>
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</tbody>
</table>

WHAT IS THE FUTURE LIKE?

SUFFICIENCY

TO

SURVIVE

+ 

THRIVE
WHAT’S AHEAD?

THE RISE OF THE NEW

ECOLOGICAL AGE

CREATING ECO-SYSTEMS
THE DNA
PLACE-MAKING

Environment
Business
Community

green building index

FESTIVAL CITY
PU CHONG
Creating the Festival City Master Plan
Festival City Building Massing Studies
Sectional Study

Physical Model Image
MALAYSIA’S 3RD GENERATION TOWNSHIPS
ECOFORREST

Concept DNA studies
SMART GREEN FOREST CITY

PARK HOMES

COMMUNITY TOWN CENTRE

MULTI-LAYERED COMMUNITY

Concept DNA studies
THE LINKS – VEHICULAR ACCESS

500M RADIUS
750M RADIUS

WALKABILITY

Entry Gate / Central Green

500M RADIUS
750M RADIUS
FINDING OUR WAY

MASTER PLAN – THE CONCEPT
SETIA CITY
240 acres
Integrated Green Commercial City

All Buildings are connected by elevated pedestrian Sky-Links
Ground level has wide paved walking boulevards linking to parks

SETIA ALAM, SELANGOR
The Modern-Day Market Place or Piazza

SETIA CITY CONVENTION CENTRE • 2012 • SHAH ALAM
The Modern-Day Public Events Space
SP SETIA CORPORATE HEAD QUARTERS - 2014

In Association with Shattato
A GREEN D.N.A

Provision for Electric and Hybrid Cars

Bicycle and Multi Person Vehicle Priority

Solar Panels for Renewable Energy

Energy Efficient Lighting and Fibreoptics
Large Canopy Roof with Garden Rainwater Harvesting

Evaporative Cooling & Water Features
Low E Double Glazing
Max Daylighting/Min Heat Gain

Access for All and Elevated Links between All buildings

Rainwater Harvesting

Raised Floor System for Cooling / cabling

Fibreoptics

Max Daylighting

Low E Double Glazing

Energy Efficient Lighting

Solar Panels for Renewable Energy

Provision for Electric and Hybrid Cars

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Fibreoptics
SETIA CITY MALL – PHASE 2 (SCM2) | OPTION 1 – MASSING STUDY (Stage 1b, Stage 2a & Stage 2c)

SETIA CITY MALL – PHASE 2 (SCM2) | OPTION 1 – MASSING STUDY (Stage 1b, Stage 2a & Stage 2c)
CREATING ECO-SYSTEMS

CREATING ECO-SYSTEMS
S11 HOUSE • 2011 • PETALING JAYA
S11 HOUSE

S14 HOUSE • 2012 • PETALING JAYA
S14 HOUSE

THE CONCEPT  FABRIC HOUSE

House 12A • 2013 • KUALA LUMPUR
THE AIR & LIGHT
- A built-in air vent that connects to a wind turbine.
- Provides stack effect ventilation & light into the house.

GREEN GRASS OF THE TERRACE
- A strip of lawn on the terrace ideal for entertaining guests without compromising the privacy of the owners.

SUSPENDED SPLIT STAIRCASE
- Suspends the staircase above the living room.
- Creates a unique design.
- Leads out onto the balcony, and another leads to the terrace.
- Design saving child safety in typical concrete stairs.