



ARCH 3691
2013

Advanced Design and Building Information Modeling February

Your Name:	Victor H. Armas
Name of Project:	First Light
Preference:	I would like to develop a BIM model
<p>I think this project is very excited, specially in the uses of wood. But, what I like the most about this project is the interior layout, where you can keep an open space by rearranging the interior according to people needs.</p>	
Use of Passive Solar Strategies	
<p>In this project the solar energy is used in different ways:</p> <ol style="list-style-type: none">1. The concrete base of the house serves as a heat storage during the day, to be realise during night.2. The sun is used to power up the house	
Use of Sustainable strategies	
<p>First Light, was designed to keep a low maintenance fee, the house itself works as one with its sorraudings. To reduce enrgy usage the house incorporates a center skylight A shading system controls the interior climate</p>	
Use of Technology	
<p>Tripple glaze windows. Energy Recovery System Energy efficent Pumps</p>	



Use of materials

The project utilizes organic materials to create a more direct connection to nature. The materials are: Pinus Radiata for the exterior, Recycle New Zealand Rimu for the interior, and plywood for the floor.

Photovoltaic strategy

It produces 6.3 kilowatts which allows for an energy reduction of 3/4 of a normal house. The system itself uses 28 polycrystalline photovoltaic panels. The house uses 40 evacuated tube solar collectors.

What strategy would you copy? What is the greatest strength?

I think that the interior is one of the strategies that could be very efficient for this project. Also, the way the project provides natural lighting by adding a center skylight. The extended solar panels that provide shading during summer.

What is the greatest weakness of the entry? What would you avoid?

I believe that the house does not still produce enough energy compared to others. I also think that the project lacks bedroom spaces.

Additional comments?

The wood in this project is very well designed, however, I believe that there are much better materials that would suit this project, such as bamboo, and some other recycled materials.



Use of materials

The use of material in this project reflect the fuction of the same, whic in this case it became a energy efficient building.
Most if not all the materials are recycle which helps maintain a constructionlow cost

Photovoltaic strategy

PVC panel help capture solar energy
To reduce energy use a high isulation system was used

What strategy would you copy? What is the greatest strength?

I belived that the the construction andpefabrication of this project would be a very important concept to follow. The system don't just reduce construction cost but it shorten the time.

What is the greatest weakness of the entry? What would you avoid?

I just think that the esthetics of the exterior could be redesign since this project deals with architecture

Additional comments?

I beilve that the interior is the strongest architectural movement



Use of materials

Th usage of the material in the outside creates a very strong statement in the exterior, the interior in the other hand lack of that excecution. Both interior and exterior seems like two different projects.

Photovoltaic strategy

Not that much information

What strategy would you copy? What is the greatest strength?

The Hydropack Roof is a very innovative way to create a green space and yet provide enought living area.

What is the greatest weakness of the entry? What would you avoid?

I would pick more carefully my materials, and I wouls try to attach all the project togheter

Additional comments?



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Your Name:	Victor H. Armas
Name of Project:	Flex House
Preference:	I would be intereted in developing a BIM model
Use of Passive Solar Strategies	
Well, I believe that by been a green design the Flex house include many possible uses from its exposure to sun.	
Use of Sustainable strategies	
Cypress lovers control the amount of sunlight	
Use of Technology	
“Smart ” appliances reduce electrical spikes, shorts and excessive energy consupption LED are use to illuminate the house	



Use of materials

In this case the materials used had to be the most ecofriendly as possible, however a close attention were put when it came to certain characteristics such as; durability, maintainability, recyclability, origin, energy efficiency and toxicity over thier life cycle.

Photovoltaic strategy

No enough imformation

What strategy would you copy? What is the greatest strength?

Movable Elements that changed the living space layout
The lovers design and esthetics
Th organic field brought to the interior design

What is the greatest weakness of the entry? What would you avoid?

Not enough information

Additional comments?



Use of materials

I believe that this project was more successful in its exterior design than the interior. For me the interior was a little over powering there was too much going on and the material did not make a statement.

Photovoltaic strategy

The Photovoltaic panels model (Bosch Solar Module c-Si M 60) is capable to provide up to 18% of the electricity used at home

What strategy would you copy? What is the greatest strength?

Rain screen
The Remote Controlled HVAC with sensors
Sun Space with a motorized window

What is the greatest weakness of the entry? What would you avoid?

The secret passage way into the bedroom is an idea that is not well incorporated to this particular type of project
The interior design although wants to capture a movement and history it is not well executed

Additional comments?

The project looks very complex in the exterior and incorporates a lot of good ideas, however, it lacks in the execution of certain movements, and it also lacks in supplying or creating the necessary energy for the house to be working more efficiently.



Use of materials

I believe that the material in this case although not to appealing it becomes very important to maintain comfortable temperatures in the interior.

Photovoltaic strategy

The round shape profile allows an easy accomodation of solar pannels
The system operates at a 93% of its optimal efficiency
It also includede a sophisticated control system that allows for monitoring and long term optimization

What strategy would you copy? What is the greatest strength?

The fact that the house dont just responde to its sorrounding but to its interior, making this project perhaps the more complex when it comes to sustainability. And perhaps, that is some of the key elementof this project that we make take and better it in its usage.

What is the greatest weakness of the entry? What would you avoid?

I beiiieve that its overall architectural concept felt behind its innovated use of technology.

Additional comments?

What I like from this project its the narrative behind its concept. Also the way its construction is shown from step to step make the project easy to understand.



Use of materials

The Sell fro this project is made of bio-based, fiber- reinforced polymer. Strong and lightweight, This material is resistant to corrosion, termites, rot, and floods, which are commom in tropical environments. Highly buoyant and able to float i the event of flood- ing.

Photovoltaic strategy

Its circular shape accomodates easily the PVC solar panles
Lovers help control the desire amount of sun light

What strategy would you copy? What is the greatest strength?

Well, for this project what I like the most is the fact that the house itself can floate with the water level rise. This is a key point for me since New York and perhaps the whole world is been expose to global warming and its effects in whihc flooding is the main concern.

What is the greatest weakness of the entry? What would you avoid?

Although the project is quite unique, the overall shape restrain a further develoment, creat- ing not efficient spaces.

Additional comments?



Use of materials

In this case the materials creates a statement and connects all the pieces togheter. Meaning the concept, technology and nature becomes one.

Photovoltaic strategy

Solar Panels
Microinverters; which tranforms DC to AC maximizing the efficiency of each solar panel

What strategy would you copy? What is the greatest strength?

The application of:
A solar Thermal Wall
Liquid Desiccant Wall
Vertical garden

What is the greatest weakness of the entry? What would you avoid?

Well, from my point if view I would have tosay the the natural landscaping over power the project a little bit. It takes the attfection away from the actual house.

Additional comments?

Overall I really think that this project was one of my favorites and the all the ideas to deal with sustainability are genius and perhaps its add a more creative approach.



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Your Name:	Victor H. Armas
Name of Project:	Chip
Preference:	Not interested in develop a BIM model
Use of Passive Solar Strategies	
Natural Air ventilation Reusing heat lose fro other porpuses Solar power energy	
Use of Sustainable strategies	
Chip integrates technology to control and reduce anergy comsuption through out the whole project.	
Use of Technology	
Energy Monitoring Control 4, allowas a central location at which every device can be control Home interface (iPad or Xbox 360)	



Use of materials

There is not as much information that explains the material use in this project.

However, I think the material helps create this kind of special capsule and adds a dramatic look to the exterior.

Photovoltaic strategy

The PVC panels provide energy not just to power the whole house, but it helps in the process of air conditioning / DHW, which collects transfer the hot air into the hot water washing machine for heat exchange.

What strategy would you copy? What is the greatest strength?

I think that the stock cabinets wall is a great idea for saving space and still provide all the amenities need in a household.

What is the greatest weakness of the entry? What would you avoid?

In my opinion I believe that the overall shape is not so appealing, and although the exterior material make it look dramatic, it is not of my liking.

Additional comments?

I would say that this project utilizes the latest material to help monitoring and control all the devices, which is innovative specially using movement sensor to control the devices.



Use of materials

The shipping container becomes the main material, structure and framing for the whole project, saving cost, time and energy in their production and shipping.

Photovoltaic strategy

PVC panels harness its energy from the sun

What strategy would you copy? What is the greatest strength?

Sliding Walls to create a more private spaces. The use of shipping containers, helps not just clean the enviroment by recycling existing structures, but saves in material cost, and construction time.

What is the greatest weakness of the entry? What would you avoid?

The entry is very well design, however it utilizes a great floor area from the others and provides the same square footage. It creates a lot of waste spaces.

Additional comments?