


Villa Flora

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Renovation

Primary energy need :
kWhpe/m².year
(Calculation method :)

ENERGY CONSUMPTION

Consumption Range (kWhpe/m ² .year)	Grade	Category
< 50	A	Economical building
51 à 90	B	
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	Energy-intensive building

Building Type : Collective housing > 50m
Construction Year : 2015
Delivery year : 2019
Address 1 - street : 26, Impasse Julie, Petion-Ville HT 6140 PETION-VILLE, Other countries
Climate zone : [Aw] Tropical Wet & Dry with dry winter.

Net Floor Area : 2 163 m²
Number of Dwelling : 39 Dwelling

Certifications :



Proposed by :



General information

Developed by Chabuma S.A./Central Home Consortium, a local Haitian developer, Villa Flora is a residential estate located in the heart of Port-au-Prince. The development targets the needs of the city's emerging middle class by offering 39 affordable apartments and single family housing units.

The Consortium received technical assistance from USAID's Haiti HOME program to incorporate key elements of affordability and resource efficiency in Villa Flora's design. Haiti HOME is led by the World Council of Credit Unions in partnership with Habitat for Humanity and the Affordable Housing Institute.

Villa Flora's homes are equipped with solar panels in order to provide each household with 100 per cent of its energy needs. Each unit's design adheres to high seismic standards to provide resilience in the event of earthquakes and other natural disasters. Because of Villa Flora's green design, each household is expected to realize estimated utility cost savings of US\$360 per year.

Villa Flora has received final EDGE certification from GBCI.

See more details about this project

<https://www.edgebuildings.com/projects/villa-flora/>

Photo credit

Photos courtesy of Olivia Caldwell, affordable Housing Institute

Stakeholders

Contractor

Name : Chabuma S.A.

Contact : 509 2941-8000

www.batimathaiti.com

Construction Manager

Name : Haiti Home Ownership and Mortgage Expansion (HOME)

http://www.woccu.org/programs/current_programs/haiti/haiti_home

Stakeholders

Function : Developer

Chabuma S.A./Central Home Consortium

Local Haitian developer

Energy

Energy consumption

Breakdown for energy consumption : Hot water: 7 kWhfe/m².year

Lighting: 2.5 kWhfe/m².year

Home appliances: 8 kWhfe/m².year

[Not included in final energy use]

Fan energy: 2 kWhfe/m².year

Cooling energy: 62 kWhfe/m².year

Initial consumption : 68,00 kWhpe/m².year

Envelope performance

More information :

Roof U-value= 2.12

Wall U-value= 1.86

Glass U-value= 5.75

Real final energy consumption

Final Energy : 17,20 kWhfe/m².year

Renewables & systems

Systems

Heating system :

- No heating system

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation

Renewable systems :

- Solar photovoltaic

Renewable energy production : 68,00 %

Products

Product

- Reduced Window to Wall Ratio - WWR of 21.14%
- Reflective Paint/Tiles for Roof - Solar Reflectivity (albedo) of 0.85
- Energy-Saving Light Bulbs - Internal Spaces
- Solar Photovoltaics - 68% of Total Energy Demand (Capacity kWp/Unit=1.9)

Product category : Table 'c21_germany.innov_category' doesn't exist SELECT one.innov_category AS current,two.innov_category AS parentFROM innov_category AS oneINNER JOIN innov_category AS two ON one.parent_id = two.idWHERE one.state=1AND one.id = '14'

- Low-Flow Showerheads - 7.6 L/min
- Low-Flow Faucets for Kitchen Sinks - 7.6 L/min
- Low-Flow Faucets in All Bathrooms - 5.68 L/min
- Dual Flush for Water Closets in All Bathrooms - 6 L/first flush and 5.45 L/second flush

Product category : Table 'c21_germany.innov_category' doesn't exist SELECT one.innov_category AS current,two.innov_category AS parentFROM innov_category AS oneINNER JOIN innov_category AS two ON one.parent_id = two.idWHERE one.state=1AND one.id = '9'

- External walls: Medium Weight Hollow Concrete Blocks-Common Brick Wall with Internal & External Plaster
- Internal Walls: Medium Weight Hollow Concrete Blocks -Common Brick Wall with Plaster on Both Sides
- Aluminum window frames

Costs

Energy bill

Forecasted energy bill/year : 6 956,00 €

Real energy cost/m² : 3.22

Real energy cost/Dwelling : 178.36

Health and comfort

Water management

Consumption from water network : 7853.04 m³

Final Water Use: 16.78 kL/Month/Unit

Water Savings: 585.82 m³/Year

Comfort

Health & comfort :

Villa Flora is a welcoming space offering a paradise setting for short and long stays. Located in Torcel, a newly built neighborhood, it is about 20 minutes to the airport, 20 minutes to Pétion-Ville where are the main shopping centers of the country. The area is very calm and safe.

It is a unique space that will charm you. The warm welcome to guests, the hospitality and the cleanliness of the environment make Villa Flora an irresistible and incomparable place.

GHG emissions

GHG in use : 9,88 KgCO₂/m²/year

CARBON EMISSIONS: 0.89 tCO₂/Year/Unit, average unit area: 90m²

Contest

Reasons for participating in the competition(s)

47% - Energy Savings Reduced window to wall ratio, reflective paint and tiles for roof, energy-saving lighting system for internal spaces and solar photovoltaics

23% - Water Savings

Low-flow showerheads and faucets in kitchens and bathrooms and dual-flush water closets.

54% - Less Embodied Energy in Materials Medium weight hollow concrete blocks for internal and external walls and UPVC window frames.

Building candidate in the category



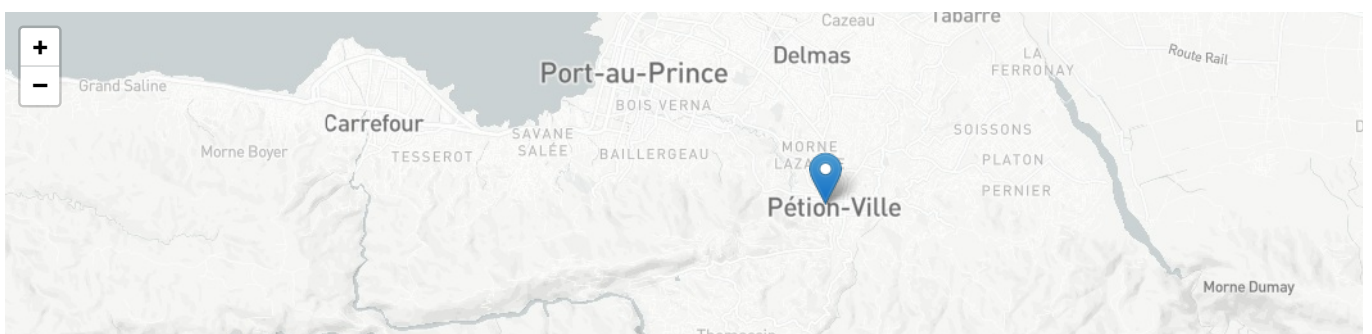
Energy & Hot Climates



Health & Comfort



Users' Choice





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