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PHILIPPINES

NEW GREEN ANNEX

The design of the new office annex building of the US Embassy strives for sustainability and sensitivity to its context.

PROJECT DATA
Project Name
US Embassy (New Office Annex Building)
Location
1201 Roxas Boulevard, Ermita, Manila, Philippines
Completion
25 February 2011
Site Area
72,000 m² (Chancery compound)
Gross Floor Area
12,550 m²
Number of Rooms
214 rooms/spaces (including back-of-house areas)
Building Height
21.5 metres
Client/Owner
US Department of State, Overseas Buildings Operations
Architecture Firm
GF & Partners, Architects, Co.
Principal Architects
Ricardo Dela Rosa; Giselle Eala
Interior Designer
The Environments Collaborative
Main Contractor
Makati Development Corporation
Mechanical Engineer
R.J. Calpo & Company, Inc.
Electrical Engineer
R.A. Mojica & Partners
Civil & Structural Engineer
Sy² + Associates, Inc. (formerly Aromin & Sy + Associates, Inc.)
Plumbing
NBF Consulting, Inc.
Telecom
GN Solutions, Inc.
Images/Photos
Daniel Tan

Situated adjacent to the historic Chancery building and prominently located next to the main pedestrian park along Manila Bay, the new office annex building of the US Embassy sits in a compound surrounded by other auxiliary structures that were constructed prior to the start of World War II. As such, its design sought to respect the site and context.

Developed in an asymmetrical L shape, the annex is orientated towards Manila Bay to maximise bayfront views. The height and mass of the building were carefully modulated to ensure the two-storey Chancery building retains visual hierarchy on the expanded embassy compound, and its exterior is painted generally in white to allow the annex to blend in with the subdued image and tones of the other buildings. The project is also designed with generous setbacks to enable the preservation of existing trees and the planting of new foliage.

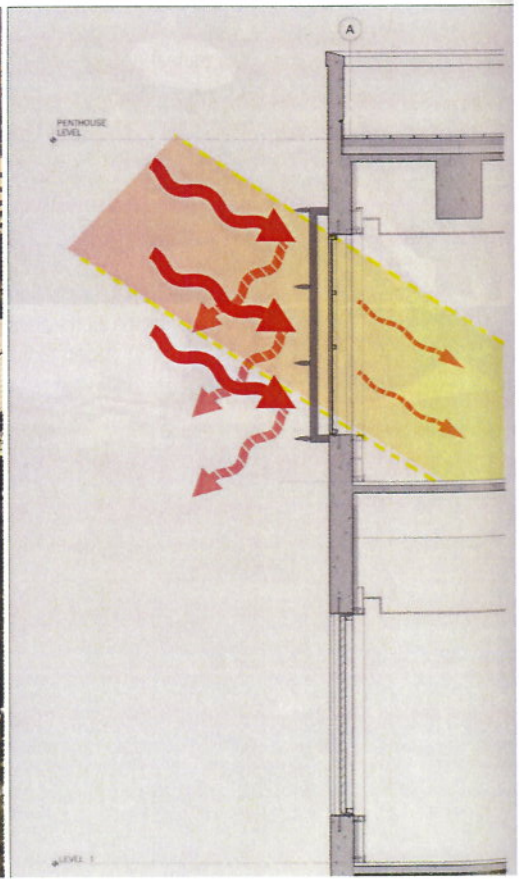
A tropical modern theme was adopted. The 20-metre high open-air waiting pavilion features multi-level banawe roofs painted in tropical puyat green. Screened enclosures, which create outdoor spaces for assembly and gathering, are also incorporated. This shade and screen design approach is adopted from vernacular architecture traditions.

GREEN IDEAS

The new annex building is built to meet the US Green Building Council's LEED certification and adopts the Standard Embassy Design (SED), a performance-based standard.

SITE

The building is easily accessible and located in close proximity to various amenities; this lowers the carbon footprint as transportation impacts such as air pollution and greenhouse gas emissions are reduced.



SHADING

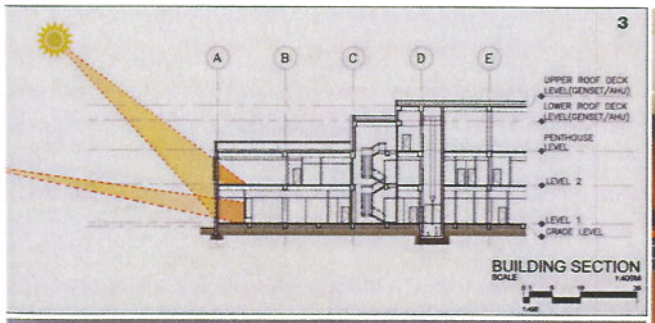
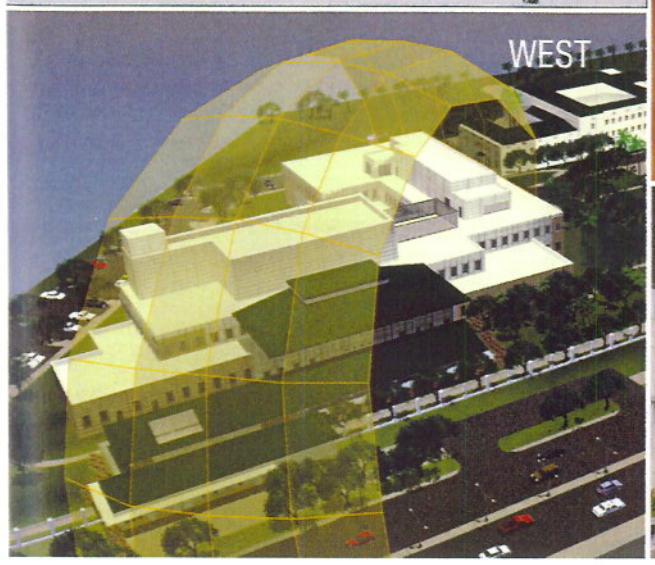
As part of solar control strategies, the sun path was carefully considered in the design of the building's shading features. The annex employs the extensive use of aluminium sunshades and sunscreens. To reduce solar heat gain, sun louvres and window canopies, together with high performance glazing, for the façade are used. These help to cool the building and reduce air-conditioning needs, which in turn reduces electrical consumption.

WATER

Native and adaptive plants for landscaping which require minimal irrigation, less fertilisers and pesticides, were selected so as to minimise water quality degradation and other environmental impacts. Grey water is used for irrigation and a high efficiency drip irrigation system that applies water slowly and directly to roots of plants is employed, resulting in 30 to 50 percent less water usage as compared to sprinklers. The treated effluent from the central sewage plant will also be utilised for landscape irrigation—this will result in an estimated savings of 26,500 cubic metres of annual potable water.

In addition, the project was specified to use low-flow fixtures, waterless urinals, low-flow kitchen sinks and showers. Aerators and motion sensors in bathroom faucets have also been installed. All these measures are predicted to reduce the amount of potable water used by the building by more than 44 percent.

MATERIALS

Approximately 10 percent of the materials used in the building were extracted, processed, and manufactured within an 800-kilometre radius of the building. Some of the regional materials used include fly-ash from coal-powered plants. To improve the indoor environmental quality and overall health of the building occupants, low-VOC paint, adhesives and sealants were specified for the interior of the building.

1 Aerial view **2** Sunshading diagram **3** Section
4 The sun path was considered in the design of the building's shading features
5 Interior view **6** Exterior view