

Safdie Architects-Designed Centro Hospitalario Serena del Mar (Cartagena, Colombia) Creates A New Model Of Healing Garden Hospital

Characterized by its connectivity to nature, the landmark medical facility is Safdie Architects' first hospital project and first project in Latin America

"In life we must learn how to give before we can ever receive. The hospital is our family's way to give back to a community, a country that has given us so many opportunities. With Moshe and team, we set out to design and build a solution to the most basic of human needs, quality health care. The Centro Hospitalario Serena del Mar is that exceptional structure that instills comfort and confidence in all of those who visit it. Its stately beauty, contextually appropriate design, and natural setting begin the healing process to those who enter through its doors."

— Daniel Haime, President, Serena del Mar

NOVEMBER 10, 2021 (Boston, MA) — A critical new resource for Cartagena, Colombia and the Caribbean region, Centro Hospitalario Serena del Mar (CHSM) is the first hospital designed by Safdie Architects and the firm's first project to open in Latin America. The advanced teaching hospital offers comprehensive human-centered medical care with the highest safety and quality standards to the over one million residents of Cartagena and wider Caribbean region. Premised on the notion that access to nature and daylight is vital to creating improved therapeutic experiences for patients, families, and staff, the design focuses on providing a sense of well-being, leading to better clinical outcomes. The hospital began a phased opening to the public earlier this year with 158 beds; once complete, CHSM will service the region with over 400 hospital beds.

The hospital anchors the Safdie Architects-designed masterplan for the El Gran Canal civic district within Serena del Mar, a new 2,500-acre city currently in development on the Caribbean coast, in the north of Cartagena. The first public-facing institution to open in the emerging master-planned city, the hospital establishes Cartagena's first full-service medical institution. Phase 1 of the hospital comprises approximately 575,870 square feet with the full project spanning 753,480 square feet of hospital facilities and gardens.

Sited overlooking a lake, CHSM is conceived of as a garden hospital. The design offers patients, staff, and families access to a diverse array of gardens throughout the building including a linear bamboo courtyard, a healing garden associated with cancer treatment, and a series of lakeside gardens connected by a waterfront promenade. Inpatient facilities are housed in five wings designed with shallow floor plates to maximize the spaces with direct proximity to windows, daylight, and views of the surrounding lake, hills,

gardens, and courtyards. Even in areas where operational efficiency is paramount (emergency rooms, labs, and clinics), daylight and views to nature are maintained, creating an uplifting environment conducive to healing.

"Daylight and openness to the outside are fundamental to the sense of wellbeing. In most hospitals, you are in an environment that's oppressive. You have no sense of where you are, you have no light. We approached the hospital with two ideas in mind: one, that daylight is key; the other is that gardens, courtyards, and water are already places of healing. These give the hospital a completely different feeling from any hospital that I know."

– Moshe Safdie, Founder, Safdie Architects



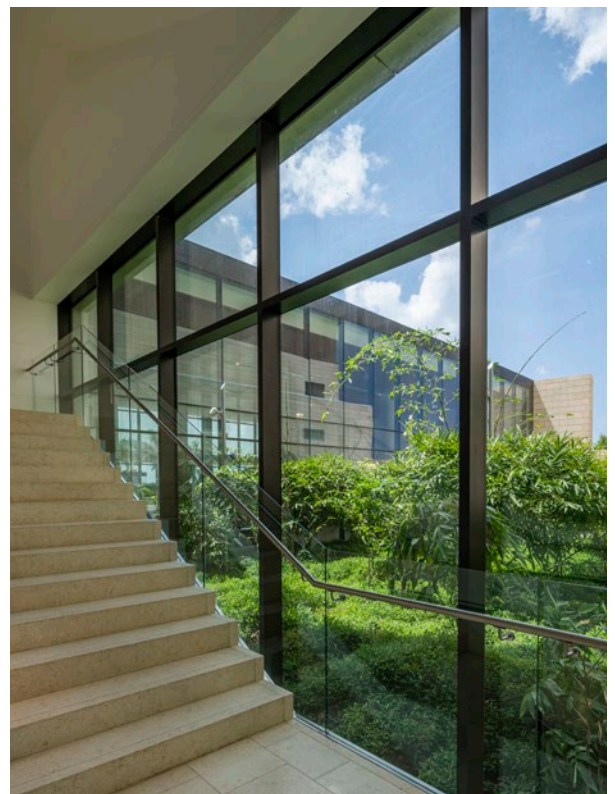


Clad with a cream-colored stone recalling the traditional coral stone of the old city of Cartagena, the architecture of the hospital responds to the tropical Caribbean climate with deep roof overhangs, recessed windows, and motorized sliding shutters which mitigates heat gain, while maximizing views and daylight.

To efficiently maintain, replace, reconfigure, or expand medical services, an entire floor of the hospital has been devoted to mechanical services, equipment, and distribution. This innovative approach in hospital planning allows for ultimate flexibility without disrupting operations.

“For Centro Hospitalario at Serena Del Mar we wanted to create a new kind of hospital: highly efficient but inherently humane. We envisioned a space that provides an uplifting and healing environment, one that avoids the institutional anonymity often associated with hospitals.”

- Sean Scensor, Partner, Safdie Architects



A PLACE FOR HEALING



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Safdie Architects

Safdie Architects is a design studio driven by a spirit of innovation, guided by the belief that architecture should be inherently timeless, connected to nature, and profoundly humane.

Founded by pioneering architect Moshe Safdie, the firm operates in the model of a design studio, with a forward-thinking, research-oriented practice. Based in Boston, with offices in Jerusalem, Singapore, and Shanghai, Safdie Architects draws upon a depth of experience to deliver some of the world's largest and most complex commissions in imaginative and unexpected ways.

The firm's other projects in Latin America include Qorner, a residential project under construction in Quito, Ecuador, and the Albert Einstein Education and Research Center in Brazil, set to open in early 2022.

Client:	<i>Novus Civitas</i>
Sponsors:	<i>Fundación Carlos y Sonia Haime and Haime Gutt Family</i>
Operator:	<i>Fundación Santa Fe de Bogotá</i>
Planning & Design Advisor:	<i>Johns Hopkins Medicine International</i>
Design Architect:	<i>Safdie Architects</i>
Medical Design Advisor:	<i>Tsoi Kobus</i>
Engineering:	<i>BR+A, TYP SA</i>
Signage:	<i>Two Twelve</i>
Lighting:	<i>Lam Partners</i>
Civil Engineering:	<i>Langan</i>
Architect of Record:	<i>Condiseño</i>
Landscape Design:	<i>EDSA</i>
Cost and Construction Manager:	<i>PAYC</i>

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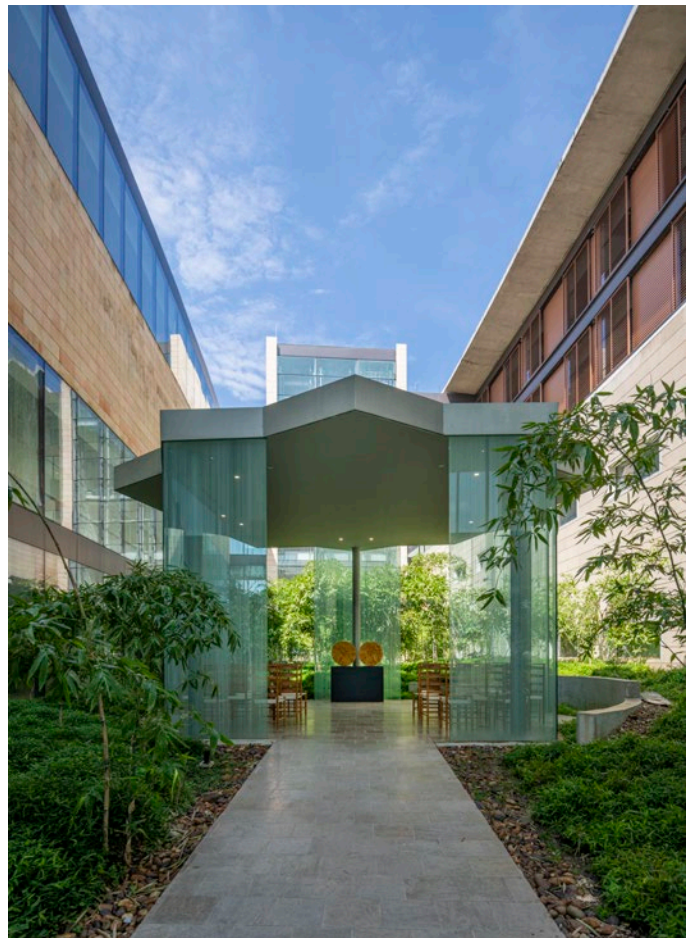
CENTRO HOSPITALARIO SERENA DEL MAR

Project Features

A Green Corridor and Intimate Gardens

A linear courtyard planted entirely with bamboo, creates separation and privacy between the inpatient wings and public outpatient services. Glass elevators, stairs, and public corridors are organized around the bamboo garden, which offers a soothing visual constant, making it easy for visitors to orient themselves and navigate around the hospital. Bamboo was specifically chosen for the quality of dappled light produced as daylight shines down through the plants, uplifting and enriching one's experience. A small non-denominational chapel in the bamboo garden offers a private refuge for families and visitors.

The hospital is designed with five inpatient wings which project out towards the lake. Between the wings are a series of courtyards, each uniquely landscaped to create distinct garden environments. A healing garden connected to the oncology department allows cancer patients undergoing treatment to experience a more intimate landscape planted with local flora including species with medicinal properties such as Indian Lilac, Frangipani trees, and Royal Poinciana.





A Healing Environment

Patient experience is paramount in the hospital's design, with fine details to create conditions for healing incorporated throughout. Each patient room is flooded with natural light and views overlooking the lake and gardens. Motorized sliding exterior shutters filter sunlight and are controlled individually for each room, giving patients more autonomy and control over their room environment.

Lighting is recessed and integrated within walls and ceilings to provide indirect illumination, which contributes to a calm environment and avoids glare when seen from patients lying in beds looking up at the ceiling in both patient rooms and corridors. Lighting levels are balanced from day to night, conducive to patients' rest and sleep.

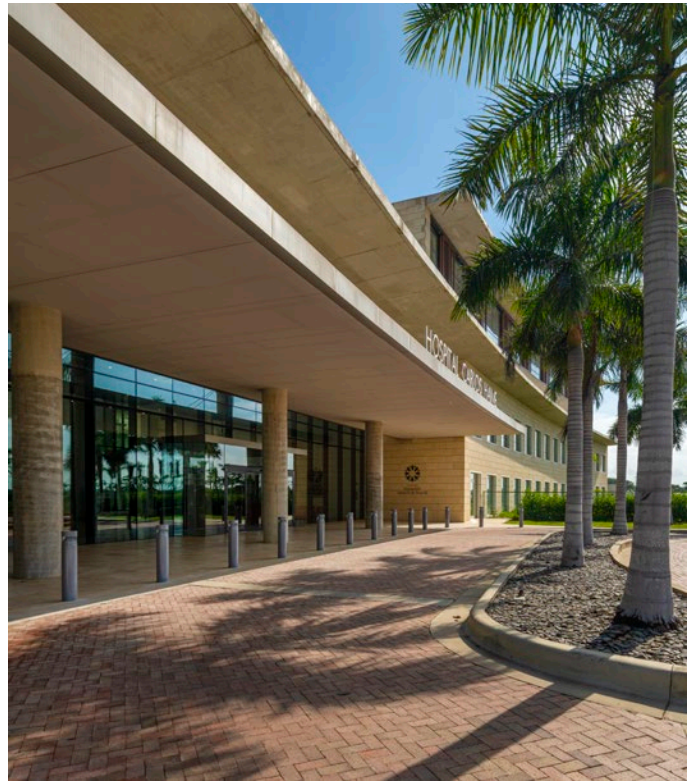
Rubber flooring used in the patient areas, is the same color as stone floors in the public areas, creating a consistent calm appearance. The rubber flooring also promotes wellbeing of nurses and staff and reduces noise from footfall to help patients rest.



Regional Character

The architectural character of the hospital is rooted in the traditional vernacular of Cartagena. Deep roof overhangs, recessed windows and sliding shutters modulate and filter the abundant yet harsh daylight. Cream-colored limestone, recalling Coralina, the fossilized coral stone which adorns the city walls and colonial churches of historic Cartagena is used throughout the hospital, on the façade and floors of the public spaces and circulation areas, creating a calm and serene environment.

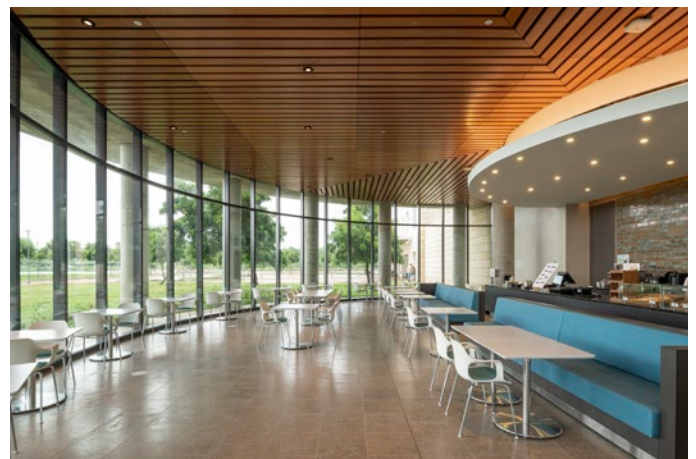
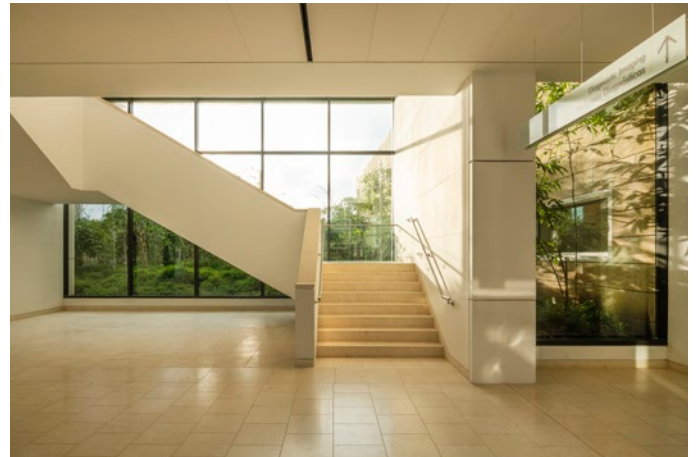
In response to Cartagena's tropical climate, which is hot, humid, and rainy depending on the season, Safdie Architects designed the building's projecting roofs to attract breezes through the project and create enough protection from sun and rain to encourage people to comfortably move between the indoors and outdoors to experience the natural surroundings.





Interiors

The serene material palette recalls the natural colors of Cartagena's coral limestone and local wood species. In contrast, brightly colored hand-glazed wall tiles and furniture upholstery recall colors found in Colombian landscape. Earthy browns, golds, and warmer colors used on the lower levels recall the palette of the La Guajira Desert and the Orinoco region; while cooler greens, blues, and turquoise are used on the upper levels to recall colors found in the Caribbean and Andean regions. Furniture colors also draw from local flora: red and purple from flowers like Bougainvillea, Heliconia, and Hibiscus Rosa; blues and yellows from Spider Lilies and Ixora; and greens from Bamboo and Agave. The building incorporates an art program including a large sculpture at the main entry and an extensive collection of regional posters, curated by NH Galería, a prominent local art gallery.



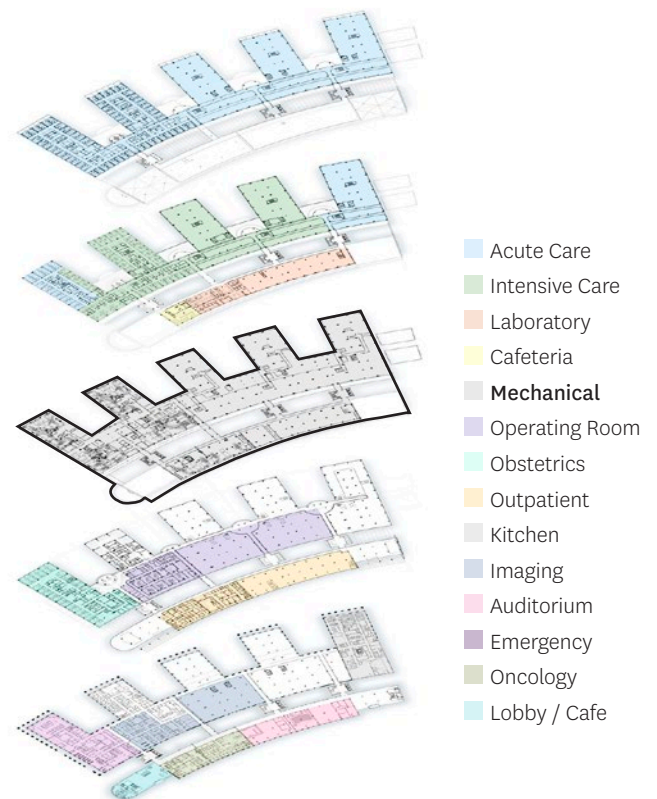


Technical Highlights

A key design innovation was to devote the third floor of the hospital entirely to mechanical equipment and service distribution. This strategy affords the hospital with ultimate flexibility—allowing maintenance staff to independently access the floor without disrupting operations, not only for repairs but for easy reconfiguration and relocation of departments as healthcare technologies evolve. Placing most of the mechanical equipment on the technical floor largely freed the roof from the cluttered array of fans and air-handlers typical of hospitals. Instead, the roof will be covered with solar panels, generating electricity for the project and create a calm overall appearance of the building.

An underground tunnel runs the full length of the hospital offering direct connection of services, staff, supplies, laundry, food, and waste from the loading docks and kitchens to all building cores—acting as an efficient spine of logistical infrastructure.

The clear services infrastructure allows for easy adaptation and phased expansion of the hospital to be built over time as the linear structure expands with it, without fundamentally changing the logic of the building or its inherent legibility.





CENTRO HOSPITALARIO SERENA DEL MAR

Project Background

Serena del Mar is a master-planned city in Cartagena, Colombia, currently in development on a 2,500-acre site and designed by the world's leading urban planners, architects, and landscapers. Serena del Mar is designed to enhance quality of life by creating opportunities for people of all socioeconomic levels and ages, integrating with nature, and providing a sustainable development plan for the growth of Cartagena with world-class architecture and design. Serena del Mar's development plans span residential, cultural, retail, healthcare, education, recreation, hospitality, commercial, social, and infrastructure projects. Serena del Mar broke ground in 2015, and is expected to be completed by 2030, with future developments to include additional residential projects, and a pedestrian commercial and residential shopping street that will serve as the social and civic center of Serena del Mar.

El Gran Canal

Occupying a 350-acre site on the east side of the regional highway, El Gran Canal is the civic district within the new city of Serena del Mar. Master-planned by Safdie Architects, the district is conceived of as a vital seaside urban community, with diverse residential neighborhoods, office and institutional zones, and commercial and transportation hubs. At the heart of the district is a new 65m wide grand canal, lined with a public waterfront promenade. The city is designed to privilege pedestrian over vehicular traffic,

and the canal is navigable for recreational boats and water taxis. The canal is interconnected with the surrounding freshwater lakes and weirs to control stormwater, tidal flows, and manage local hydrology. The district's main pedestrian thoroughfare integrates shopping and restaurants at street level with offices and housing above, leading to a new public marina on the canal. The Centro Hospitalario Serena del Mar is a centerpiece of the masterplan, occupying a prominent site at the gateway to the district.

Centro Hospitalario Serena del Mar (CHSM)

Operated by Colombia's premier hospital operator, Fundación Santa Fe de Bogotá, CHSM is the first full-service hospital in Cartagena, offering specialty care previously unavailable in the Cartagena region. The hospital, designed to provide 409 beds, includes inpatient and intensive care for adults, children, and newborns; high-complexity operating rooms; clinical laboratories and pathology; outpatient clinics; diagnostic imaging including X-rays, fluoroscopy, ultrasound, mammography, densitometry, CAT Scan, PET Scan, MRI, nuclear medicine; as well as adult and pediatric radiation therapy and chemotherapy at the CHSM Cancer Institute.