### BACKGROUND CONTEXT

**General Facts**

The factory is located in Asunción, Paraguay, and was built in 1970. It is a former brewery and is a typical example of the industrial modern architecture of that time. The factory has a total area of 9,000 square meters and is located near the Pan American Highway 7.

**Paraguay**

Located in south-central South America, Paraguay is bordered by Argentina to the east, Bolivia to the north and west, and Brazil to the south. It covers an area of 411,000 square kilometers and has a population of approximately 7 million people, mainly concentrated in the southern part of the country.

**Climate**

Paraguay has a subtropical climate with hot summers and mild winters. The wet season lasts from November to May, and the dry season from June to October.

### STRUCTURAL TRANSFORMATION

**General Transformation**

Transforming an old factory to a modern refinery

**TRANSFORMATION METHOD**

The factory is transformed into a modern refinery. The old brewery is adapted to serve as a modern sustainable refinery for Stevia. The factory is located near the Pan American Highway 7, which connects the country's capital with the neighboring district.

**BACKGROUND DATA**

- Area: 9,000 square meters
- Location: Asunción, Paraguay
- Construction year: 1970
- Adaptation: Modern sustainable refinery

### LAYOUT TRANSFORMATION

**New Layout**

- Central street on the site
- Loading zone
- Shaded central communication
- New void for more daylight
- New open entrance
- Addition recreation restaurant
- Shaded area 2 Ha
- Green houses 1 Ha
- New exit at the former entrance

**Building Features**

- New roof with skylight
- Water collection
- Perforated shading brick wall
- New light colored brick facades

**Central Street on the Site**

The central street is located in the middle of the site, creating a focal point for the new layout. It connects the new entrance with the old factory, allowing for easy access to the different areas of the building.

**Loading Zone**

Located near the central street, the loading zone is designed to facilitate the transportation of goods and materials, ensuring a smooth workflow within the refinery.

**Shaded Central Communication**

A shaded area is created within the central communication, providing a comfortable space for employees and visitors.

**New Void for More Daylight**

New voids are created in the existing structure to allow for more natural light, enhancing the work environment and reducing energy consumption.

**New Open Entrance**

A new entrance is located at the center of the site, offering a welcoming and accessible entry point for visitors and employees.

**Addition Recreation Restaurant**

A new restaurant is added to the site, providing a social space for employees and visitors, promoting a more inclusive and vibrant workplace culture.

**Shaded Area 2 Ha**

A shaded area of 2 hectares is created, offering a green and relaxing space for employees and visitors, contributing to the overall quality of life within the refinery.

**Green Houses 1 Ha**

A green house area of 1 hectare is developed, promoting a sustainable approach to energy use and reducing the environmental impact of the refinery.

**New Exit at the Former Entrance**

A new exit is created at the former entrance, improving access and reducing congestion at the main entrance.

**Central Street on the Site**

The central street serves as a central axis, connecting all major areas within the refinery, facilitating efficient movement and communication.

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