

+ Nestlé Distribution Hub

Tarlac, Philippines



The what

Osborne+Co developed a purpose build-to-suit Warehouse Distribution Centre in San Manuel, Tarlac, Philippines for Nestlé

The 30,000 sq m facility is occupied and leased by Nestlé Philippines Inc. (NPI). It will cater to its entire customer base in the North Luzon region and a portion of the Central Luzon Region.

With the completion and operational “go-live” achieved at the end of 2019, the distribution centre will operate 24 hours per day, 360 days per year.

Situated in the overall seven-hectare PRI Logistics Park development, the property is located in San Manuel, Tarlac, along the MacArthur Highway. It is approximately five kilometres from the TPLEX Carmen toll plaza and 140 kilometres north of Central Manila.

The project is a significant landmark in the central Luzon area and a commercial benefit to the north of Luzon and surrounding residents. The location and accessibility of the central warehouse are of great importance and critical for success.



The characteristics are as follows

Pallet Racking System

- Designed Storage Capacity – 38,500 pallet space

Distribution Centre Site Composition

- Main building
- Inbound and outbound loading bays – (finger docks; dock levellers and plain docks), including canopy
- Ambient storage
- Controlled temperature room (confectionery storage)
- Staging area
- Bundling area
- Battery charging room
- Empty pallets storage room
- Reconditioning/returns room
- Offices, server room, training rooms
- Canteen, staff shop and other amenities
- Security room and guardhouse
- Parking and internal circulation roads for manoeuvring 60-foot trucks
- Cars and motorcycle parking

The results

- In securing this development, Osborne+Co had significant competition, including a number of local developers and global 3PL providers
- This development was delivered through Osborne+Co's Philippines/Asia Pacific platform, which previously delivered the Citibank Plaza building in Fort Bonifacio, Manila
- Osborne+Co secured this development by successfully taking part in an RFP process undertaken by Nestlé in early 2017 to identify a development partner
- As part of this process, we identified and acquired a site to meet the location brief provided by Nestlé fully
- The distribution centre was completed in 2019 and is now fully operational

The importance of collaboration at an early stage is key to successful delivery.

Creating a DC designed inside-out with the operational users in focus:

- Prioritising efficiency
- Detailed planning
- Cost-effective
- Operational
- Effectiveness

We worked hand-in-hand with Nestlé's team to configure the best design for the site:

- Office size, number of staff, working habits
- Warehouse and product flow
- Number of actual trucks daily per hour
- Docks and loading/unloading
- Truck access, parking, and drivers' area
- Security and access
- Future and beyond 2022
- Racking systems: The racking design was undertaken by Nestlé preferred vendor (Dexion) and then tested against the operator and Nestle Business stakeholders locally and in Switzerland

Meeting and working with the Nestle stakeholders over a three-day workshop, optimised the design in:

- Operations
- Admin
- 3PL

As a result of the workshop, the skills PRI & Nestlé required during the evolution of the build-to-suit brief were identified as follows:

- Engineering
- Costs and value-add
- Commissioning
- QA/QC
- HSE

The co-design was produced in the workshop for a real build-to-suit development for the specific site we had selected.



ENGINEERED SERVICES FOR
A HEALTHY WAREHOUSE



BUILD-TO-SUIT WARE-
HOUSE DISTRIBUTION
CENTRE



325,000 FT²



£27M

The Tarlac Distribution Centre (DC)
has been designed to accommodate the following

2025 Annual Demand KGs
160,474,974

2025 Annual Demand Cases
22,846,962

2025 Annual Demand Pallets
550,269

2025 Daily Peak Inbound Pallets
2,140

2025 Daily Peak Outbound Pallets
2,782

Profile – Picking Ratio

Case Pick Ratio
50%

Pallet Pick Ratio
50%





Design Specifications

Building and Infrastructure

- Designed for easy unloading and loading of goods, with a platform of 1.1m above external road level, to prevent flooding
- The warehouse featured a low concrete hollow block wall at 1.5m high to eliminate forklift damage
- Roofs and walls are not to have openings and windows to maintain a controlled work-lit environment and eliminate water leakage
- Roofs are continuous length, non-pierced and insulated with 100 mm 50 kg per cubic m Rockwool, and withstand 250 kilometre per hour winds
- Walls are 0.6mm aluminium with insulated wall panels
- We have adapted a structural steel portal frame design that optimised the floor-to-ceiling clearance within the warehouse and achieved a maximum ceiling height of 13.70 metres
- A foundation type for proper site selection was specific to the site conditions and the total calculated load of the warehouse

Plain docks and finger docks

We developed with Nestlé to identify the optimum number of plain docks and finger docks. Our design adapted the dimensions of proprietary dock levellers, shelters, shutter doors and telescoping docks. This allowed for faster construction and accurate installations on site.

The total width of the docks dictated the number of pallet bays which, in our design, provided an efficient ingress and egress of goods into the staging area.

A small satellite office was provided in the finger docks, as we have considered the distance of the main office from the truck dock area.

Racking and Pallet Layout & Position

The racking and pallet positioning were laid out in consultation from a Nestlé approved supplier, Dexion.

- Total Pallets include 10% for raw storage
- With back-to-back aisles aligning with the truck dock areas and included both Pallet Shuttle Racks and Pallet Selective Racking
- 8 pallet rows high throughout with 12.1 m high and 3.5 m wide aisle spacing
- Seismic framing and load are considered within the racking
- Lighting considered within the shuttle tunnels area

DC Circulation

- Under the following premise, the operational and internal circulation flow is designed to optimise efficiency
- We designed the DC to have the shortest travel distance possible between racks and docks for an efficient operating cycle and use of space
- Dock levellers aligning with the racking system
- Minimum 15-metre clear space for staging of goods
- Direct forklift access to the MHE/BCA areas from the racking areas.

- Staff amenity areas and office areas have visual and direct connectivity to the warehouse area.
- Shuttle racking optimised for outbound products.
- 3500 m clear width between racking
- Inbound products are stored towards the back of the DC and outbound products are stored closer to the staging area

Engineered Services For A Healthy Warehouse

To attain continuity of business, we considered key areas that need backup power in the event of an interruption, primarily; anything related to safety, lights within the warehouse and power to servers.

Lighting was designed to achieve lux levels for a clear and bright working environment.

High Bay LED lights have been designed with the maximum coverage possible to lessen lights and therefore lessen electricity consumption.

The ventilation system provides a comfortable working environment with appropriate energy systems to produce effective operating conditions at minimum cost and negative environmental impact.

Fire Protection and Safety Precautions

Our design is based on an ESFR (Early Suppression, Fast Response) sprinkler system

In general, ESFR systems can be used in warehouses with storage that does not exceed 40 feet (12.2 metres) in overall height and a ceiling height of under 45 feet (13.7 metres).

This eliminates the need for in-rack sprinklers, and our maximum height in the warehouse is compliant with the use of an ESFR system and without in-rack sprinklers

Smoke detectors are placed not more than 9 meters apart from each other and not more than 4.5 meters away from any wall enclosure.

There are allocated in-rack fire house cabinets with a reach of not less than 20 metres.

Emergency exits not more than 46 meters from any point of the warehouse.

An emergency access road that can fit a fire truck or an ambulance was incorporated to access the back portion of the DC.