



4 Project Brief & Design Development

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4.01 Project Design Brief

At the outset of the project, the following objectives were established to form the design brief aimed at developing a proposal which would be acceptable in commercial terms but also has regard to the site constraints and opportunities and planning policy requirements:

- Bring forward the redevelopment of this dated, underutilised site at the earliest opportunity;
- A development of flexible E(g)(ii)(iii), B2 and/or B8, to maximise potential future occupiers and units being able to adapt to changing market circumstances.
- Provide a range of units from 14,000ft² GEA (starter units), to 80,000ft² GEA;
- The units shall provide ancillary first floor office accommodation and/or mezzanine deck with goods lift access, and ground main office access;
- Provide range of unit heights of up to 12m internal haunch;
- Provide car parking ratio to institutional standards or to be agreed with LPA;
- Provide service yards with HGV and van access loading doors, yard depth to be in accordance with institutional standards;
- Provide ample enhanced soft landscaping areas with a robust landscaping strategy to create a pleasant work environment and to promote biodiversity;
- Provide perimeter security without undermining site access;
- Provide a commercially viable development, with input from letting agents;
- Design to achieve BREEAM 'Excellent' and EPC 'A' rating as a minimum targets;
- Create new employment opportunities for the local community;
- Provide a modern development using contemporary construction techniques and materials;
- Create attractive new workplaces with emphasis on the well-being of future workers;
- Protect and maintained existing Ancient Woodlands;
- Protect and maintained existing Local Wildlife Sites.



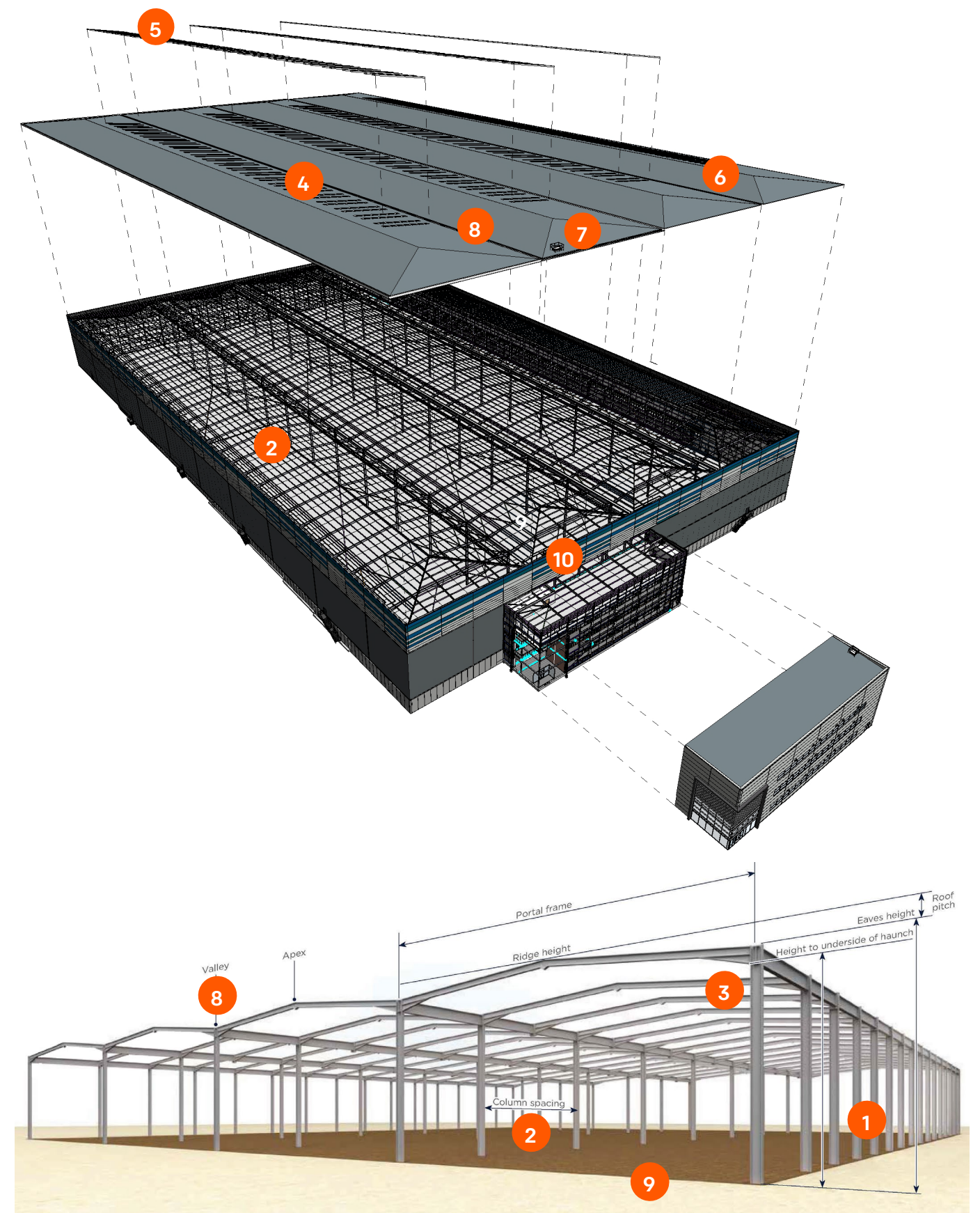
4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Industrial and logistics design is multidisciplinary field that involves various aspects of facility design, layout optimization, material handling systems, technology integration and workflow analysis.

Industrial and logistic schemes involve the design of buildings and the creation of an environment that adheres to the highest standards of sustainability and design. To ensure sustainability, the development should incorporate principles related to land forms, water run-off control, energy production and energy use. Additionally, the proposals should result in a safe and high-quality development that enhances and promotes biodiversity.

Typical Industrial & Logistics Building Design

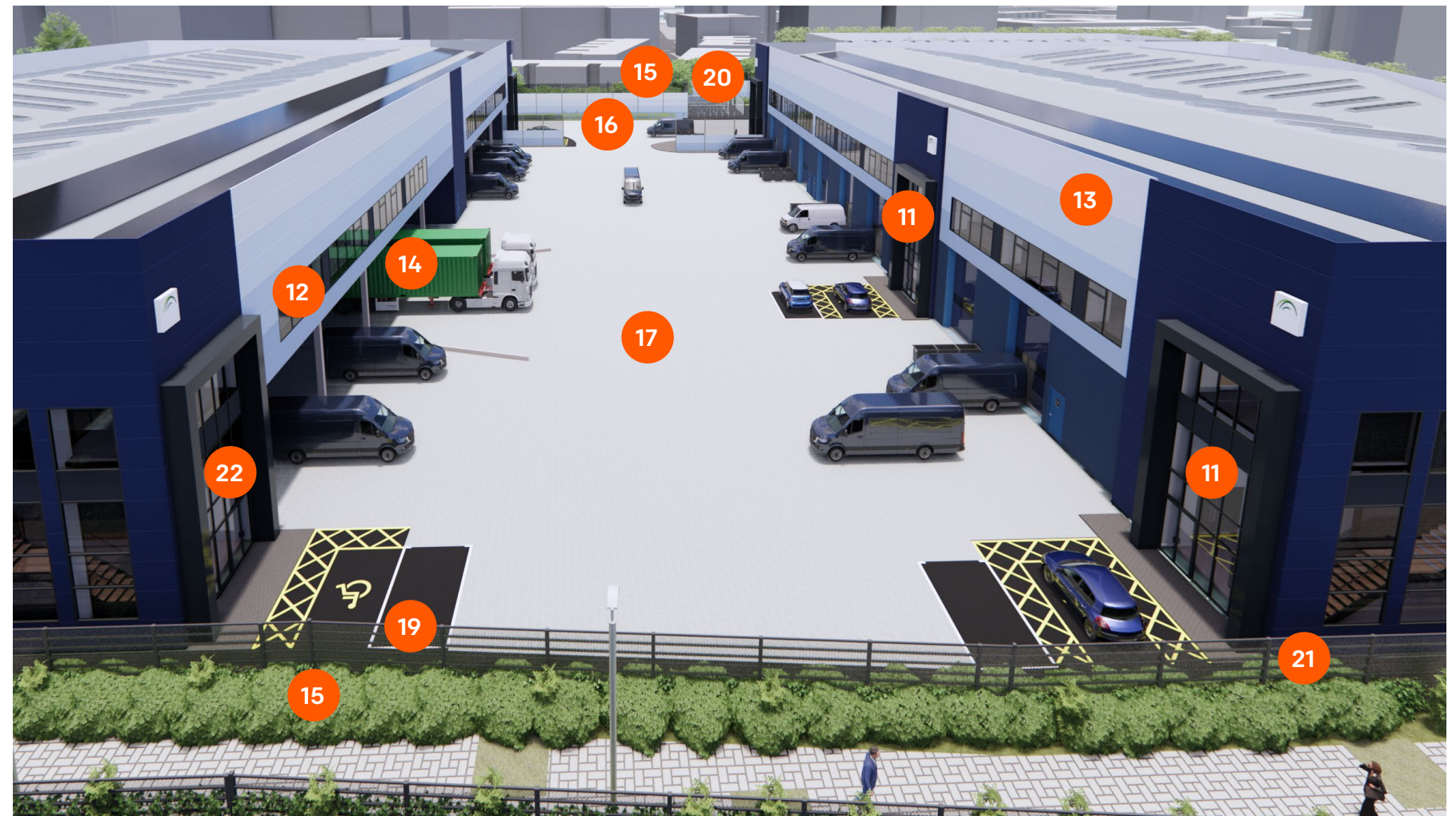
- 1 Typical 8m wide grid spacing with internal column spacing at 16m ("hit & miss") to allow for flexible racking and fitout opportunities (both wide aisle and very narrow aisle racking configurations)
- 2 Portal frame spacing between 28m to 35m
- 3 Standard clear haunch height: 10m, 12m, 15m, 18m
- 4 6° roof pitch with 15% Roof Lights across roof area for an optimal maximisation of daylight
- 5 100% roof designed to allow for future PV to be installed
- 6 Permanent roof access ladder with man safe system where necessary to allow access for maintenance
- 7 Rainwater from the roof collected in 3mm thick pre-galvanised mild steel parapet wall and valley gutters.
- 8 Syphonic system used as standard specification (installed with both primary and secondary drainage system)
- 9 Warehouse floor design load at 50kN/m²
- 10 Fire separation between the office and warehouse



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Typical Industrial & Logistics Building Design

- 11 Office location provides direct access into warehouse area
- 12 Increased glazing and ceiling heights to maximise natural daylight
- 13 Built up cladding to provide excellent air tightness
- 14 Level Access Doors and Dock Levellers to meet all customers requirements
- 15 Structure planting / Landscape screening
- 16 Functional and secure site entrance with a well-connected pedestrian and cycle network
- 17 Secure HGV yards and lorry/trailer parking
- 18 Carparks designed to Local Authority standards
- 19 EV charging points and provision of ducts for further expansion
- 20 Bike and motorbike shelters
- 21 2.4m Paladin security fencing to the perimeter of the goods service yard
- 22 Main entrance and office to a high-quality office standard



BUILDING



Biobased materials



'Excellent' performance



Renewable sources

INFRASTRUCTURE



Cyclists' facilities



EV Charging points



Sustainable Transport

LANDSCAPE



SUDs & Attenuation Ponds



Tree Planting



Biodiversity



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Design Drivers



Emission Control



Water



Resources



Health + Wellbeing



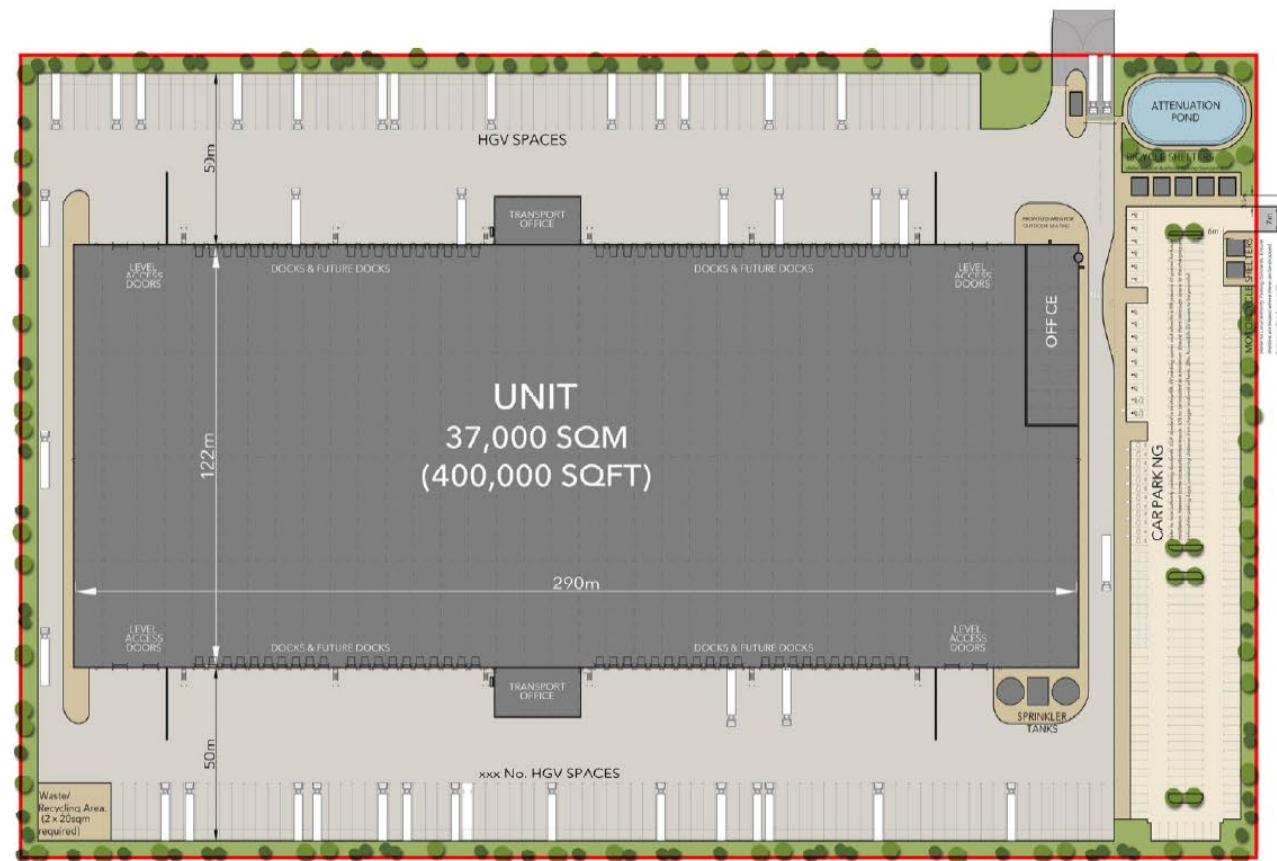
Climate Resilience



Biodiversity



Value + Cost



Typical Industrial / Logistics Site Layout – Cross docks configuration



Typical Urban Industrial / Logistics Site Layout – Single Sided Loaded configuration

Space for tree planting to site perimeter to create green boundary

Planting to screen lorry movements from the carpark if possible

Landscape areas in service yards to be avoided

An unobscured HGV stacking at gatehouse / gates to be provided

Biodiversity – wildlife pond to be created within the SUDs feature

Allow for pedestrian / cyclist access and circulation

Office to be positioned and designed to be highly visible from main roads

Outdoor seating area / garden should be provided for staff

Security paladin fencing to the perimeter of the site

Fence layouts need to be coordinated with landscape proposals

Space for potential sprinkler tanks and pump houses to be provided

Mid row trees to break up the expanse of parking bays

Carpark designed to Local Authority Standards

Bicycle and Motorcycle shelters designed to Local Authority Standards

Service yard location within the plot to be either screened with landscaping or positioned away from the main road

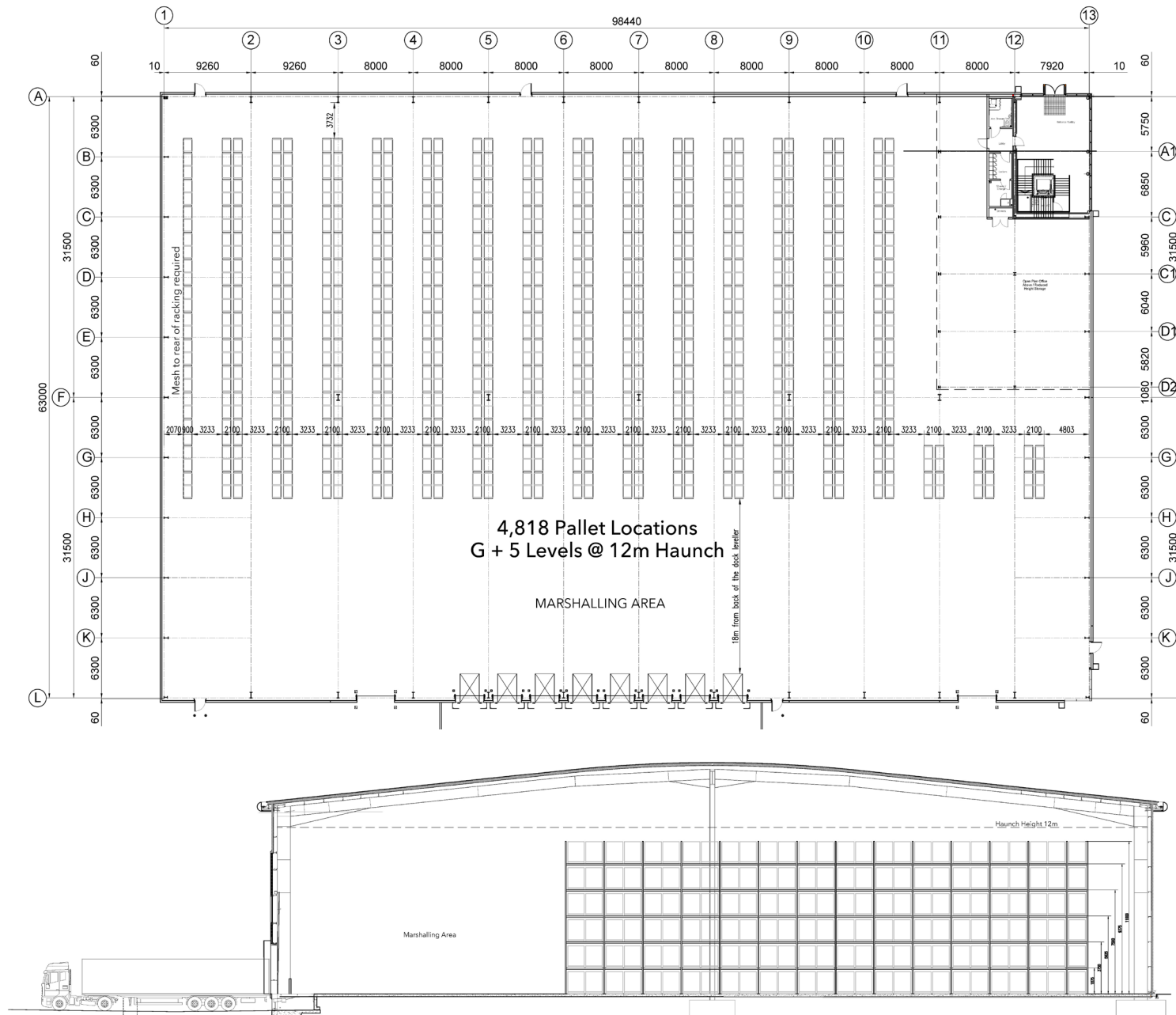
Space for ancillary structures, i.e. bin stores, recycling, ACC compounds, substations etc to be provided

Providing safe and convenient access for all users of the site including employees, suppliers or distributors, visitors and the local community, ensuring good connections beyond the site.



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Typical Wide Aisle Racking Layout



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Typical Offices Layout

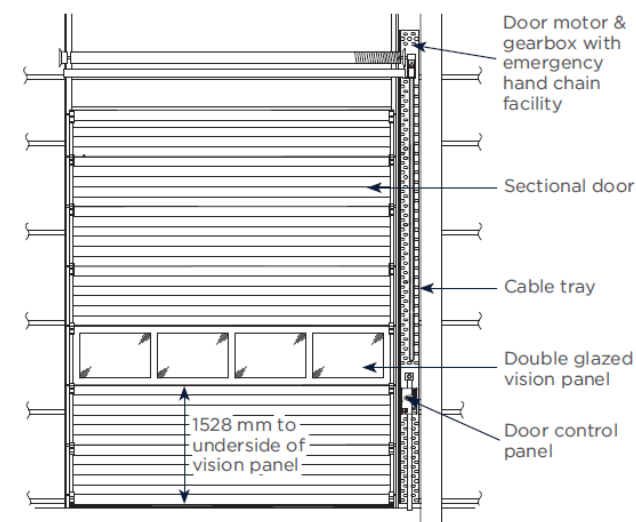


4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Typical Dock Doors and Level Access Doors

Level Access Doors:

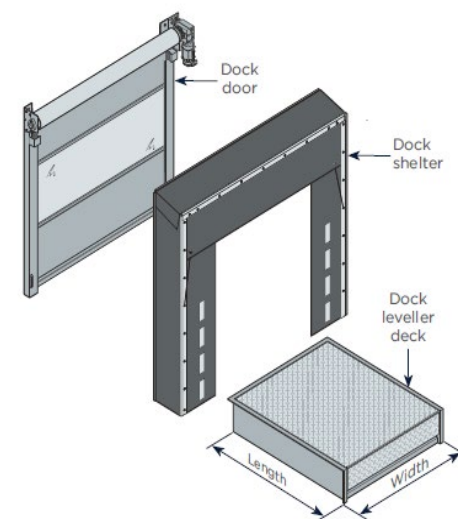
- vertical lift doors
- Standard size door – 4m x 4.8m
- Composite construction with insulated sectional panels with micro-rib profile
- Double glazed vision panel
- Electrically operated with manual override



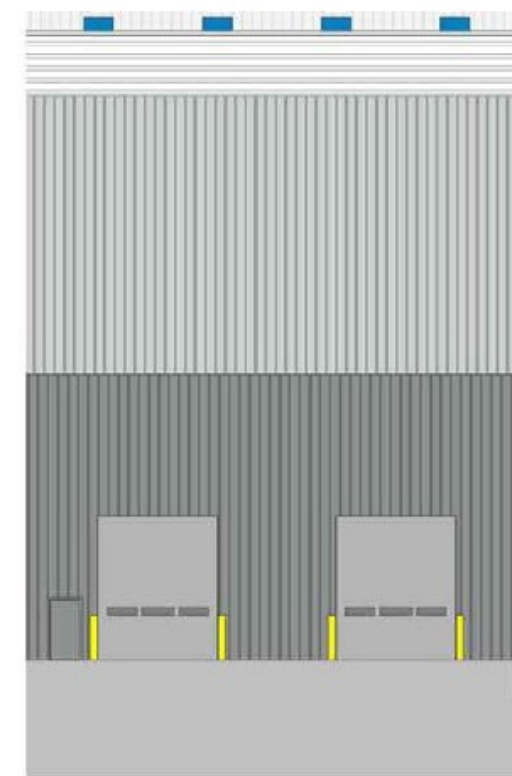
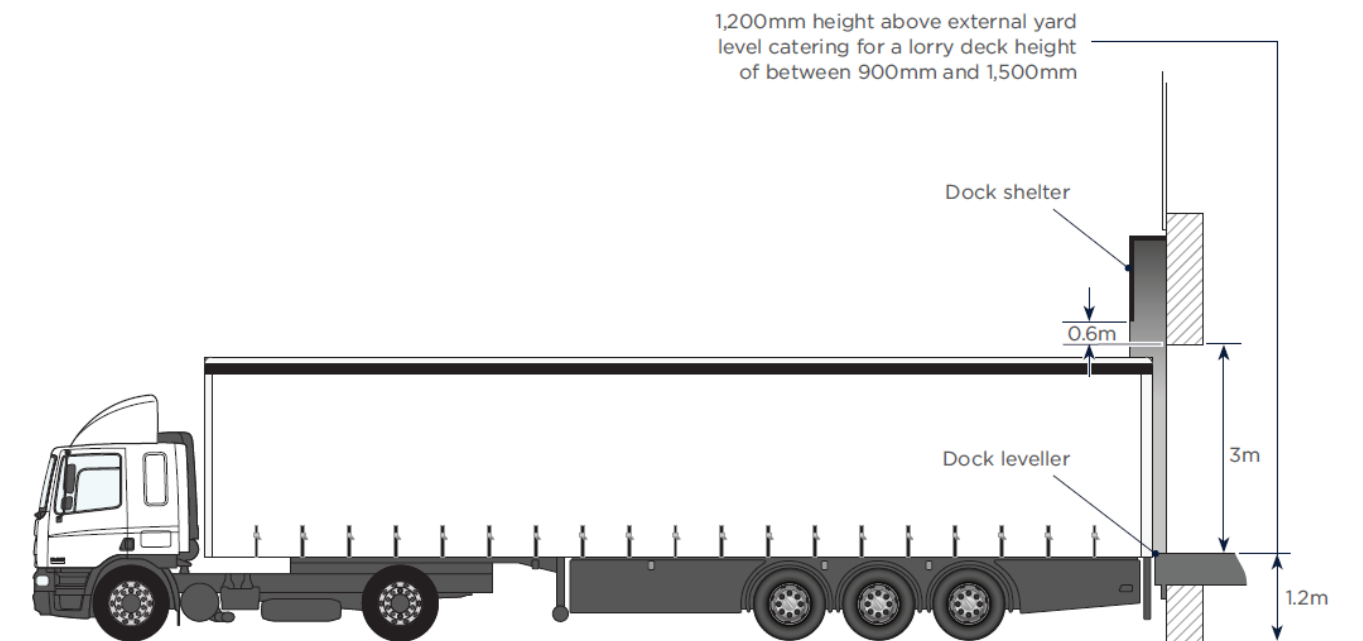
Typical internal view of a level access

Dock Doors:

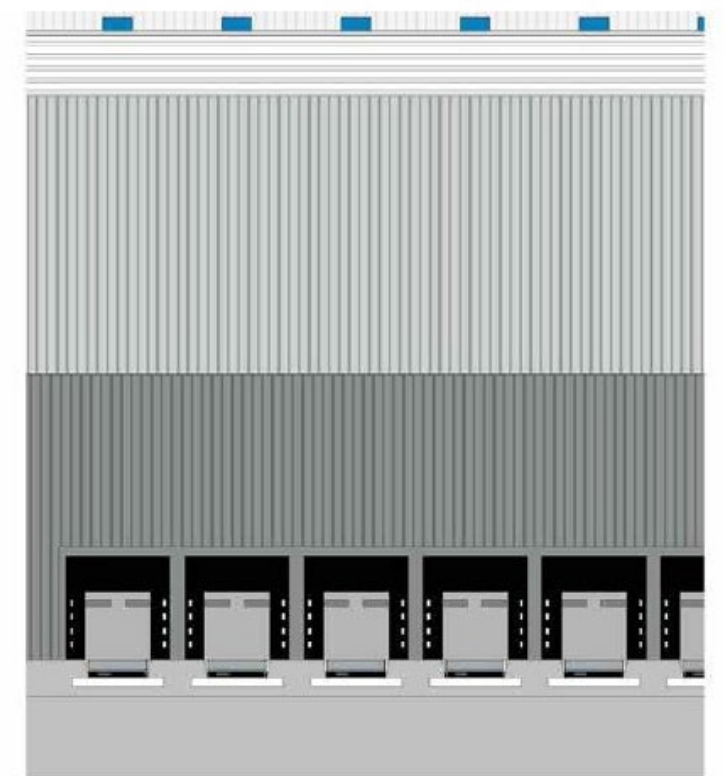
- vertical lift doors
- Standard size door – 2.86m x 3m
- Composite construction
- Micro-rib profile
- Standard provision: 2 doors per 8m bay



Component parts of dock door



Level Access Doors



Dock Doors



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Landscape Precedent Images



- 1 Enhanced landscaping and external break out space with ponds.
- 2 Existing Ancient Woodland is respected and also provides screening to development.
- 3 High quality elevation design and cladding system to compliment surrounding landscaping.



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Materials Precedent Images

- 4 Landscaping with active frontages.
- 5 Enhanced Elevation treatment to cladding system, along sensitive boundaries where active frontage is not possible.
- 6 Full height curtain walling to office entrances..
- 7 Enhanced cladding panels to sensitive elevations.
- 8 High quality cladding panels to loading door elevations.
- 9 Feature banding of cladding panels to elevations.



4.02 Architectural Design Drivers & Typical Industrial Design Precedents

Design Precedent Images



Dual aspect office fronting two elevations with fully glazed corner entrance & metal or timber bris soleil to south/west facing elevations



Fully glazed office entrance corner with projecting feature banding/surround

