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Biosolids Regional Storage Facility

Architectural Concept

Paul O'Toole Architects were asked by J.B. Barry & Partners to design a pair of storage buildings to house biosolids. Measuring approximately 105x50x15 metres, these rectangular buildings would sit in a relatively flat, brown-field site and would be visible from the public road network.

Site Constraints

The receiving environment is a flat 11-hectare brown-field site with some pre-existing roads and areas of hard standing. It is bound along its eastern boundary by the R135 road (the N2 lies further to the east. There are a number of residential units located along the southern part of this local road. A screening berm on this edge of the site is partially complete. Entry to the site is from the R135. There is a limited amount of planted vegetation growing on the site's remaining boundaries.

There are a number of existing buildings on site and there is a power line running from northwest to south east in the western section of the land.

The buildings' location was limited to the northern half of the site – to utilise the existing hard standing; to avoid the power lines; to create a rational vehicular circulation route and to allow for possible expansion.

Design Intent

The intention was to design a pair of buildings that by their shape, mass, roof profile, finish and footprint, would minimise their perceived mass within the landscape.

Design Approach

The architectural concept was to break down the apparent overall mass by a number of methods:

- Staggering the buildings' footprints
- Emphasising horizontal lines
- Colour selection
- De-emphasising the roof ridge height
- Visually 'tying down' the front elevations into the landscape
- Introducing curved outlines

Design Implementation

The two buildings will not present a parallel front to the public roads. The north building will be stepped back from the south building by some 20 metres. This will have the affect of breaking up the overall mass of what otherwise would appear to be a single building plane.

The selected mid-grey colour wall cladding of the side and rear elevations, stresses the horizontality of the rectilinear building form by both the cladding pattern and the contrasting colour bands. A 'shadow' line of darker grey colour panels will form an upper band (frieze) at roof eaves level. This has a secondary result whereby the roof and walls are more clearly defined as separate elements, which further breaks down any monolithic appearance.

The roof itself will be curved on profile. This will create a 'softer' ridge line as there will be no definitive hard-line as with a standard pitched roof. It will be light grey in colour which is the predominant sky colour throughout the year.

The front elevations will differ from the others by being clad in a contrasting colour. They will over-sail the junction points with both side elevations and will cantilever out beyond their base lines. At parapet height they will also echo the curved radius of the overhead roof structure. The resulting composition will create a visually stimulating profile while simultaneously providing a visual anchoring of the buildings into their landscape.

The storage buildings' access doors and the finishes of the satellite buildings elsewhere on site will have a unified colour scheme which will contribute towards creating a cohesive and considered group of otherwise disparately scaled structures on the site.

Together with a well detailed main entry point into the facility and associated boundary treatments, it is considered that this proposal will fulfil the client's requirements within the receiving environment.

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