

Summary Information Report – 18/08/2022
To Support the Demolition of a Welfare and Accommodation Facility on the Sellafield Site.

Building Description

The Sellafield Security Project Welfare Building is an office /welfare complex erected on site post 2009. The Steelplan Multi building comprises 3.112m wide factory engineered modules with spans ranging from 6m to 12m. The modules have a suspended floor mounted on a galvanised steel base frame, external square section steel columns, welded to the base frame at each corner, supporting the longitudinal steel lattice beams which carry the ceiling and roof decking. This method of construction ensures a clear internal span over the whole floor area of the module.

The steel monopitch roof provides positive shedding of rainwater and the composite steel faced ceiling panels give a flat ceiling throughout the building. Hot dipped galvanised steel products are used throughout the building and extensive use of durable Plastisol coated steel for external finishes ensure minimal maintenance for the duration of its design life of 25 years. The corner columns and lattice beams are designed to be capable of supporting an upper module when a two-storey building is required.

Floor

The base frame is constructed in 178mm deep channel section, cold rolled from 3mm hot dip galvanised steel to BS EN 10143: 1993. Floor joists formed from hot dip galvanised steel are mechanically fixed into the base frame @ 600mm centres to give a uniform floor loading capacity of 3kN/m². Galvanised steel transit skids are mechanically fixed to the underside of the building. Insulation is provided by 160mm polymer slab material positioned between the floor joists. An 18mm plywood floor to CE EN 13986 is fitted throughout, secured to the base frame by self-drilling steel screws.

External Walls

Wall panels are of a sandwich type panel construction and are based upon a 1200mm wide module. The external cladding is nominally 0.5mm Plastisol coated hot dip galvanised steel and an inner lining of 12.7mm vinyl faced glass reinforced gypsum board provides a robust and washable surface. The linings are polyurethane pressure bonded to a 70mm thick insulation core to form a rigid wall construction. Galvanised steel channel sections are incorporated as required within the wall panel to provide strengthened fixing points as necessary.

Roof

The roof is made of interlocking Plastisol coated steel sheets, running in one continuous length from ridge to eaves, with a 1° slope to ensure positive water shedding into the purpose made guttering and square section uPVC down pipes. The deck is supported on transverse galvanised steel channel purlins, secured to the lattice beams at nominally 1.2m spacing.

Ceiling

The ceiling consists of composite steel faced panels with 70mm polymer insulation between, with an interior finish of white Polyester coated steel, with a reaction to fire rating of “Class O” as defined in Approved Document B of the Building Regulations. An extra layer of insulation is placed above the ceiling panel to create a cold roof design with a U-value of 0.21 W/m²K.

Reason for Demolition

The building is now redundant and no longer has a function on site.

- Demolition of this structure will reduce the life cycle costs of maintaining it safely and securely.
- This is part of the programme to remove many of the Sellafield buildings.
- Their removal will release significant land area for reuse or remediation and enable visible progress of site clean-up.
- The demolition of the building is to be completed at the earliest opportunity.

Method of Demolition

The demolition tasks will be executed by one of Sellafield Limited's (SL) appointed demolition contractors. They have proven experience on the Sellafield site using industry standard techniques.

The activities include the following: -

- Site preparation prior to demolition, including fencing off the work area, protection of drains and disconnection of services.
- Soft strip of facility to segregate rock wool insulation and plasterboard panelling prior to size reduction.
- The soft strip may include the removal and disposal of asbestos containing materials by licensed operatives.
- Size reduction (crushing/demolishing) of the facility using a wheeled excavator fitted with selector grab.
- Segregation of waste.
- Disposal of waste materials in accordance with SL waste routes.
- Complete demolition of the building structure to base slab.

Environmental Impact & Waste Streaming

- Appropriate characterisation of waste will take place prior to demolition in line with SL procedures. Characterisation must be undertaken in close proximity to the date of demolition to ensure the results are current.

- Asbestos demolition surveys are to be undertaken to comply with the Control of Asbestos Regulations 2012 and to determine the waste routes
- No waste will leave the site until the results have been confirmed. The following are waste predictions based on the demolition of a building of similar type, size location and age;

Waste Type	Weight (te) Approx	Disposal Site
General Demolition Waste	117	Landfill Site (lillyhall)
Glass	1.3	CWM Lillyhall
Metal	36	Recycling Lives (Metal Recycling)
Plasterboard	19	CWM Lillyhall
Timber	17	CWM Lillyhall

Ecology Report

Please find enclosed the SL Ecology Statement provided by SL Environmental Advisor F. Inglis.

Yours faithfully

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Appendix

Building South Elevation



Building North and East Elevations

