Summary Information Report

To support the Demolition of the Calder Hall Administration Building.

Building Description

The Calder Hall Administration Building (CHAB) is located to the West of Street 91, and adjacent to Turbine Hall A. The original building was constructed in 1955 and served as the management centre for Calder Hall and houses office accommodation over two floors. The building also contains toilets, storerooms, archive rooms, change area/locker rooms, tea bar, kitchen and a canteen.

Figure 1 – Calder Hall Administration Building during construction taken in 1955

The CHAB is connected to Turbine Hall A via a link corridor through the control block. The assumed boundary for CHAB is 2m outside the extents of the external walls of the building. There are several underground service tunnels below the car parking area to the Northwest of the CHAB, access to these tunnels is via the basement located under the link bridge.

The overall building construction consists of a steel frame supported on concrete pad foundations. Externally, masonry walls with patent glazing are supported on strip foundations to the perimeter of the building. At ground level there is an 8” (200mm) reinforced concrete ground bearing slab. At 1st floor level prestressed concrete slabs span one-way onto steel beams which span between columns. The roof is constructed of a reinforced concrete flat slab covered with roofing felt. This roof falls to the west into standard design drainage. The overall size of the two-storey section of the main building is 73m long, 9m wide and 6m high.

At the North and South end of the building there are masonry shear walls with stone facing extending the full width of the two-storey building. These have been finished in stone to give an architectural feature to the overall building façade and these walls are around 1’ 10” (560mm) thick (Figure 2).

On the western side of the CHAB, running for approximately half of the building length, a single story non-active workshop was constructed at the same time as the two-story section. Originally this section was clad in corrugated asbestos cement sheets, however these were quickly replaced with windows to provide more light into the workshop.

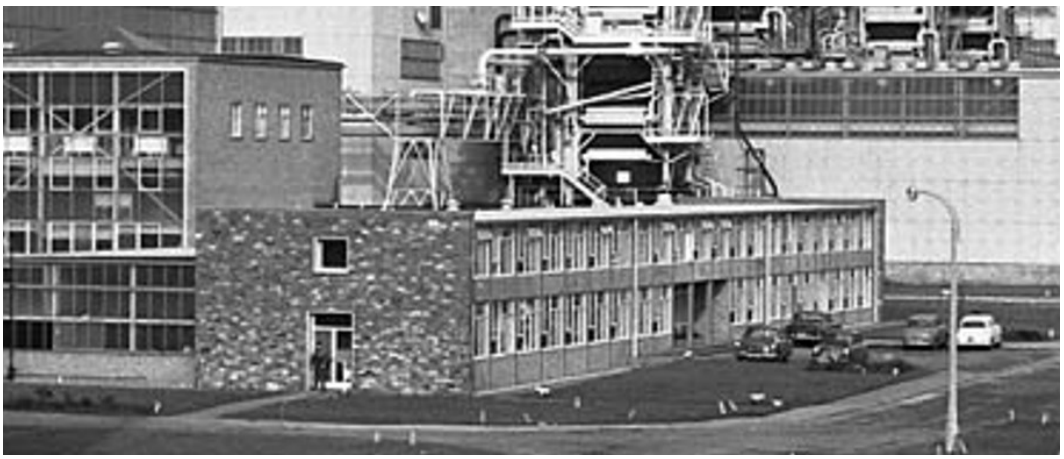


Figure 2 – The Calder Hall Administration Building taken from the south in 1959, showing the rock clad end gable wall and the new windows of the single storey workshop on the west side

Between 1959 and 1962, a single storey extension was added at the south end to provide changeroom facilities (Figure 3).

Figure 3 – The CHAB in 1962 taken from the south end showing the extension to the workshop

In 1986, the single storey workshop was converted into a combination of office and welfare space and the changeroom area extended to the west (Figure 4). The changeroom facilities were modernised and the windows to the offices were replaced in 1996.

Figure 4 – Aerial photograph of the CHAB in 1998 showing the extended changeroom at the south-east end and the new kitchen extension at the north end of the west wall.

Figure 4 also shows the external works of one of the other alterations to the building. In 1986, an extension at the northwest corner for the installation of a kitchen was built, to go alongside the conversion of the north end of the ground floor to be a canteen. This new facility was further extended with the construction of a porch at the north end in 2001 (this is visible in Figure 5) and a shielding wall at the north-west corner of the CHAB. No further significant alterations to building structures have taken place since that time.

Figure 5 The CHAB in 2020

Reason for Demolition

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

- The Calder Land Clearance Project is part of the overall site remediation portfolio. Once removed this will release a significant land area for reuse.
- Demolition of this structure will reduce the life cycle costs of maintaining it safely and securely.
- The demolition of the building is to be completed at the earliest opportunity.

Method of Demolition

The demolition tasks will be executed by Integrated Decommissioning Solutions (IDS), who have been appointed by Sellafield Ltd. IDS have proven experience across the Sellafield site using industry standard techniques. The demolition activities include the following: -

Prior to the commencement of de-planting the building will be in the following state:

- All services will have been isolated and where possible removed
- A full asbestos survey will have been undertaken followed by an asbestos strip
- Any radiological contamination of the building will have been surveyed and removed
- Prior to deconstruction of the main structure, internal strip out of existing non-loadbearing partitions and removal of office furniture and other ancillary equipment to be carried out.

The demolition contractor is to use this to aid in the production of their own method statement for the safe de-planting of the building

Outline Demolition Sequence

An overview of the de-planting of CHAB is as follows: -

- Carry out removal of non-loadbearing internal partitions, soft strip and removal of any remaining office furniture prior to demolition of building.
- Demolish the building using an excavator (with attachments) working from South to the central core at the main entrance and then from the North to the central core in a progressive manner, removing single bays at a time.
  The sequence will be as follows:
    - Remove roof structure
    - Remove walls between first floor and roof level
    - Remove steel frame between first floor and roof level
    - Remove first floor slab
    - Remove walls between ground floor and first floor level
    - Remove steel frame between ground floor and first floor level.
- Temporary bracing to ensure lateral stability in the temporary condition may be required as the demolition progresses.
- Back fill any remaining voids following completion of demolition.

Environmental Impact and Waste Streaming

- Appropriate characterisation of waste has taken in line with SL procedures.
- Asbestos R&D Surveys have been undertaken to determine appropriate routes.
- An Out of Scope (OOS) Metals agreement is in place between SL and IDS.

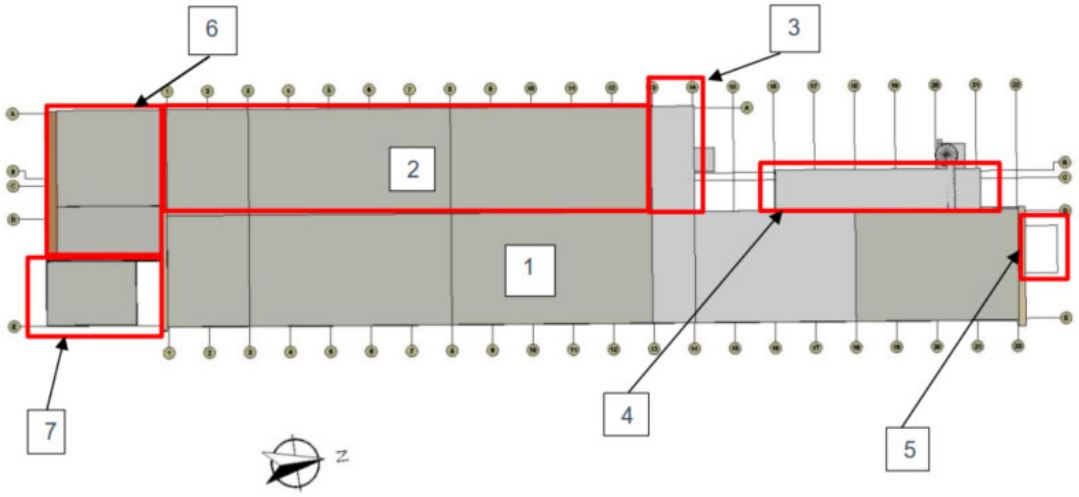
The following waste has been determined for the demolition for CHAB:

Waste Type	Waste Weight (te)	Radiological Categorisation	Chemical Categorisation	Waste Route
Aggregates	155.68	OOS	Non - Hazardous	OOS - Recycle
Asbestos Cement	0.13	OOS	Hazardous	OOS – Recycle
Asbestos Lagging	0.2	OOS	Hazardous	OOS – Recycle
Bitumen (Felt)	4.65	VLLW	Hazardous	LA-LLW - Disposal
Brick	256.44	OOS	Non - Hazardous	OOS – Recycle
Cabling	4.8	OOS	Non - Hazardous	OOS – Recycle
Ceramic	0.36	OOS	Non - Hazardous	OOS – Recycle
Concrete	872.13	OOS	Non - Hazardous	OOS – Recycle
Glass	7.19	OOS	Non- Hazardous	OOS – Recycle
Metal (Ferrous)	105.73	OOS	Non- Hazardous	OOS - Disposal
Metal (Non-ferrous)	0.12	OOS	Non- Hazardous	OOS - Disposal
Plastics	2.86	OOS	Non- Hazardous	OOS - Disposal
Resin	0.02	OOS	Non- Hazardous	OOS – Recycle
Rubber	5.85	OOS	Non- Hazardous	OOS - Disposal
Timber	29.59	OOS	Non- Hazardous	OOS – Recycle

Ecology Report

Please find the attached report, which was completed in 2021 for the full scope of the Calder Land Clearance Project (CLC).

Appendix 1 – Building Layout Drawing



Marked areas are:

1. Main two-storey part of the building (roof height 6.1m)
2. Single storey on West side of the building (roof height 4.5m)
3. The Link Bridge to Turbine Hall A (roof height 6.1m)
4. The North-West single-storey canteen extension (roof height 2.9m)
5. The small entrance extension to the North (roof height 3m)
6. The Locker Room area (roof height 4.5m, sloping to 4.1m at the East end)
7. The Changing Room extension (roof height 2.8m)