

ELSECAR BUILDING 10

DESIGN AND ACCESS STATEMENT

The Property and Procurement Section of Barnsley Metropolitan Borough Council have been commissioned to carry out preliminary works to building 10 to repair the fabric of the building to the extent that it can be fitted out at a later date when additional funds have been secured. It is understood that this building will form part of a general re-arrangement of administrative spaces. Tentative proposals at this stage are that Building 10 will house a visitor welcome / reception area, with office and associated spaces on the ground floor with conference and meeting spaces on the first floor. The current brief is to carry out repair works to the roof and walls and remove all non structural internal partitions to leave the shell in a safe and weather tight condition.

Elsecar Heritage Centre is a Conservation Area and contains many listed buildings. Building 10 is listed as a building of architectural or historic interest, with a Grade II rating. Building 10 was originally built in the 19th Century as offices for the colliery engineering works but was converted to house a medical centre in 1978, shortly before the works were closed down in the early 80s. It is a two storey, stone faced building with a ridged slate roof with some original cast iron windows to the first floor on all elevations. The building was clearly built in two stages, being extended into the site to the South East. The two parts of the building have different floor levels and are currently are not connected. The ground floor in the original section is a raised timber floor with the ground floor of the later section being a solid concrete floor.

The entrance door, which gives access to the front part of the building opens out across the pavement and has a one step threshold.

The rear part of the building is accessed from a small covered shopping mall with a level access. The fire escape from the rear section gives access to a shallow ramp with steps into a courtyard to the front of the building.

A steep stair, which is insubstantial and does not comply with current regulations, provides access to the first floor from the rear part of the building only.

The proposed works are intended to be a first phase only and are limited in scope to repairing the fabric: walls, roof and first floor and staircase. It is proposed to repair or replace the roof timbers that need attention and provide a new slate roof, in colour to match the original. The walls, which have much eroded stone work and inappropriate pointing will be completely re-pointed with the most eroded stones cut out and replaced with new stones to match the existing in colour, texture and grain. New stones and stones to be re-bedded will be laid in lime mortar with the re-pointing done in lime mortar to match the best practice elsewhere at Elsecar. Voids in the rubble filled wall will be grouted using low pressure pumped; non-cementitious grout and new wall ties will be installed as work proceeds.

Other works include:

- Dry rot treatment to ground and first floor walls where identified.
- Replacement of timber lintels (mostly affected by decay) with concrete internal lintels. The lintels in the external leaf of the walls are stone and appear sound.
- Cutting out miscellaneous timbers that have been built into the internal walls and replacing with brick.
- Wet rot treatment where rain has penetrated through broken windows.
- Removal, stripping, repainting, re-glazing and reinstatement of the existing cast iron windows at first floor level.
- Removal of existing plastic or corroded gutters and downpipes and replacement with cast iron, to match original elsewhere at Elsecar.
- Remove the current stair and replace with temporary stair to provide safe access.
- Provide new particleboard flooring to the first floor (final stair and lift location unknown).

As the funds have not yet been secured for future use, the future layout is unknown. It is possible that a much improved public entrance will be required. The windows on the ground floor have no historic value and a new layout may well require a different approach to fenestration. All of which will be subject to a later application. It is, therefore, not proposed to tackle the issues of disabled access, ground floor windows, drainage for toilets / kitchen, services generally, lighting or internal finishes until funds have been secured to allow the ideal fit out configuration to be established. The shell will be weather tight, safe to enter and secure but could not be used as habitable or work space.

ELSCAR BUILDING 10

HERITAGE CONSERVATION STATEMENT

The Property and Procurement Section of Barnsley Metropolitan Borough Council have been commissioned to carry out preliminary works to building 10 to repair the fabric of the building to the extent that it can be fitted out at a later date when additional funds have been secured. It is understood that this building will form part of a general re-arrangement of administrative spaces. Tentative proposals at this stage are that Building 10 will house a visitor welcome / reception area, with office and associated spaces on the ground floor with conference and meeting spaces on the first floor. The current brief is to carry out repair works to the roof and walls and remove all non structural internal partitions to leave the shell in a safe and weather tight condition.

Elsecar Heritage Centre is a Conservation Area and contains many listed buildings. Building 10 is listed as a building of architectural or historic interest, with a Grade II rating. Building 10 was originally built in the 19th Century as offices for the colliery engineering works but was converted to house a medical centre in 1978, shortly before the works were closed down in the early 80s. It is a two storey, stone faced building with a ridged slate roof with some original cast iron windows to the first floor on all elevations. The building was clearly built in two stages, being extended into the site to the South East. The two parts of the building have different floor levels and are currently are not connected. The ground floor in the original section is a raised timber floor with the ground floor of the later section being a solid concrete floor. The external stonework, as with many buildings at Elsecar, shows signs in many places of deep erosion. It is believed that this is due to a combination of air pollution from the colliery environment and hard, cement based re- pointing in the past. Some stone faces have weathered back over 50mm from the original line and in places appear to have gone through completely. The South East and North East elevations, the main elevations within the site, have clearly been much altered over the years, to the ground floor level, with 20th Century basic timber windows inserted as required. The first floor windows are all original cast iron with an unusual diamond pattern to the South West, South East and North East elevations. Timber loading doors to the upper floor, dominate the gable elevations, front and back but show signs of decay.

Internally, the most interesting elements are the roof trusses, comprising a king post truss with mid third support taken from the floor beams carrying the first floor. The first floor is therefore sectioned between the trusses which are timber clad to the side cheeks. A clear route from front to back of the first floor is only possible through the middle third of the space. The timber beams supporting the trusses (and the first floor) have been reinforced with bracing but it is not considered to be actually contributing much from a structural perspective.

The ground floor internally has a variety of block or stud partitioning. A steep stair rises to the first floor from the rear of the building. This stair, which is considered to have no historic value, is insubstantial and does not comply with current regulations. Large areas of flooring are missing from the first floor.

The entrance door, which opens out across the pavement, has a one step threshold. Single storey buildings abut to the East and West, all of which have recently undergone refurbishment.

Listed building consent is being sought for the repair works proposed. Several meetings and discussions have taken place between the Conservation Officer and the Architects / Structural Engineer to arrive at the most sensitive and appropriate way to repair and upgrade this building shell. Investigative work has been carried out to establish the extent of the damp, rot and infestation that have taken place since the building ceased to have a function over 25 years ago.

The extent of the stone repairs has come about as a result of on several site inspections involving the Architect, Structural Engineer and Conservation Officer. The first proposal was to carry out a general rebuild of the worst affected areas, notably the upper gables to front and rear. The concern we had though was the loss of historic fabric and a review of the extent of the repairs has resulted in the current proposals. An attempt has been made to focus on the most eroded stones and highlight these for replacement provided the extent of erosion does not threaten the structural integrity of the building. Areas have been highlighted on the drawing, where erosion is considered to have progressed to a situation where there is a possible risk of premature collapse unless action is taken soon. Particular areas of concern are the corners, where many of the quoins are deeply eroded, the upper parts of the gables and the lowest courses of stonework to the gables with adjacent pavements. The intention is to cut out the worst affected areas and replace with new stones, with particular emphasis on the colour, texture and grain size of the replacement stone to match the original. New stonework will all be laid in lime mortar. Existing stones in reasonable shape but in an unstable condition (e.g. copings and top courses of side walls), will be taken up and re-bedded. All the wall elevations will be re-pointed, with existing pointing removed by hand to minimise damage to the stone. The re-pointing will be carried out using lime mortar to with a colour, texture and profile to match the best practice elsewhere at Elsecar. New wall ties will be introduced during the works. All voids to the rubble fill core will be filled with low pressure pumped non-cementitious grout (from the Tarmac, Limelight Heritage range).

The fabric is currently showing damp penetrations throughout, with the worst conditions at the following locations:

- Ground floor at South West (adjacent to raised planting bed)
- Ground floor North West, where the internal ground floor level is below the adjacent paving to Wath Road.
- To the roof where there is evident timber rot, especially to the valleys.
- Much of the first floor plaster has deteriorated through neglect and probably poor coping flashings.

As this is a rubble filled wall building, it is proposed to inject a chemical damp proof course to all external and the main internal walls. The existing, decayed plaster will all be removed from the ground floor walls and be replaced, after the dpc is in place, with hygroscopic salt resistant plaster, or in the worst affected areas, with specialist render.

Roof:

The current roof finish is natural slate, which is showing signs of reaching the end of its useful life with nail fatigue, lost and damaged slates. The roof itself, which has no under slating felt is built up from the main trusses with purlins supporting common rafters and valley rafters, supporting battens and slates. Many of the rafters on the rear half of the building are in a fairly reasonable condition but the rafters on the front section are generally worse. Prior to any repairs, all the timbers need to be exposed and where necessary, treated for either woodworm or decay. The ends of built in purlins have been identified as requiring pre-formed resin repair.

A couple of options have been considered for the roof repair:

An HFC blown polyurethane rigid foam, spray applied to the underside of the slates – Renotherm. It would be necessary to carry out any necessary repairs to the supporting timbers first so that the structure is essentially sound and replace damaged, missing or dislodged slates. It is understood that a 95mm layer of the foam applied to the underside of the slates will achieve a U value of 0.2W/m²/k. The finished product has a Class 1 spread of flame rating which would be suitable in this location. According to the Agreement Certificate, 'the anchorage originally supplied by the fixing nails is replaced by the adhesive properties of the foam'.

It was felt though that the likelihood of overspray (which would have to be removed) might be problematic in relation to the king post trusses which we wish to expose in the finished building.

The proposed re-roofing scheme is to treat and repair the ends of all the built in purlins and the rafters in the rear half of the building. The rafters that have decayed too far will have to be replaced. Existing slates and battens will be replaced (using new, good quality slate in matching colour) over a breathable sarking felt on the rafters. Celotex rigid PIR insulation boards with a 50mm air gap under the sarking felt, will be placed between and under the rafters with joints taped as a vapour control layer. A soffit of plasterboard on battens will be provided as the internal room finish below the Celotex leaving the trusses on view.

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HOUSING AND PROPERTY SERVICES
Property and Procurement



To: Charles Lynch

My Ref: AMP(ST)/JR/AT/S5424

Your Ref: CST 233

Date: 6th July 2009

Enquiries to: J. Rochester

Ext: 4302

Subject: ELSECAR HERITAGE-BUILDING 10, IMPROVEMENT WORKS

Building 10 was originally constructed in the 19th century as offices for the colliery engineering works and from 1978 been used as a medical centre, it is now vacant.

The building was constructed in 2 stages being extended into the site to the south east.

The 2-storey building consists of loadbearing sandstone rubble filled walls supporting a timber first floor and slated roof. The king post trusses to the roof are supported on trussed beams at first floor.

The ground floor is at 2 levels, with a solid floor to the front and a raised timber floor to the rear Wath Road side.

The external sandstone stonework is extremely eroded due to a combination of weathering aggravated by the long term polluted colliery environment and by previous hard pointing. Consequently some stonework has weathered back by over 50mm or 35% of the thickness of the outer leaf. Since these walls are rubble filled, it has been found on similar adjacent buildings that long term consolidation of the rubble fill has left voids at high level and a tendency to push out the lower stones and mortar. It is proposed to low pressure grout and re-tie these walls. Given the degree of erosion of the stonework, in particular to the gables, it is considered that in adverse weather and high winds in particular there is a risk of the stonework collapsing. Replacement of the eroded stone and repointing with an appropriate lime mortar is therefore recommended. Timber battens were found to have been built and coursed into the inner leaf of the external walls. These timbers have deteriorated due to damp, woodworm and rot. It is recommended that they should be removed (in short lengths) and replaced with brick to avoid endangering the stability of the walls.

To the front of the building a large area of first floor floor-boards has been removed. The remainder including floor-joists are affected by woodworm and rot. It is proposed to either treat or replace these members. A first floor beam and a number of valley rafters and purlins are also affected by woodworm and rot; it is proposed to treat and repair these. Numerous roof slates are missing, loose or perished; the roof covering is considered to have past its serviceable life and should be replaced.

6th July 2009

ELSECAR HERITAGE-BUILDING 10, IMPROVEMENT WORKS

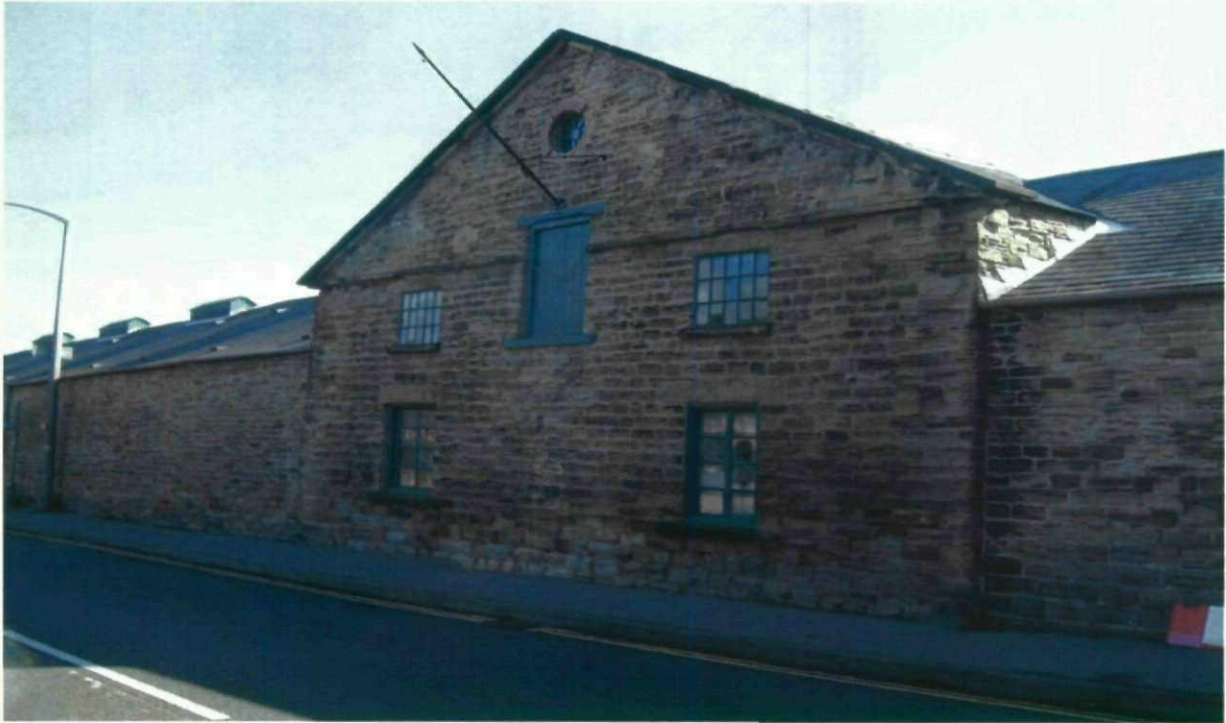
Due to dampness through out the building a chemical damp proof course is proposed. Most of the internal plaster is damp, loose or spalling and requires replacement. Internally at ground floor the original lay-out has been much altered with a mix of block and timber stud partitions and an inappropriate suspended ceiling. Details of its renovation as well as proposed details for doors and windows are illustrated on the architect's drawings.

Photographs illustrating the above are included.

If you would like this information in an accessible format (for example in large print or by email) or another language please contact 01226 774300.

Charlie Adams
Principal Designer (Structures)

Wath Road Elevation



Front Elevation



Side Elevation



Trusses



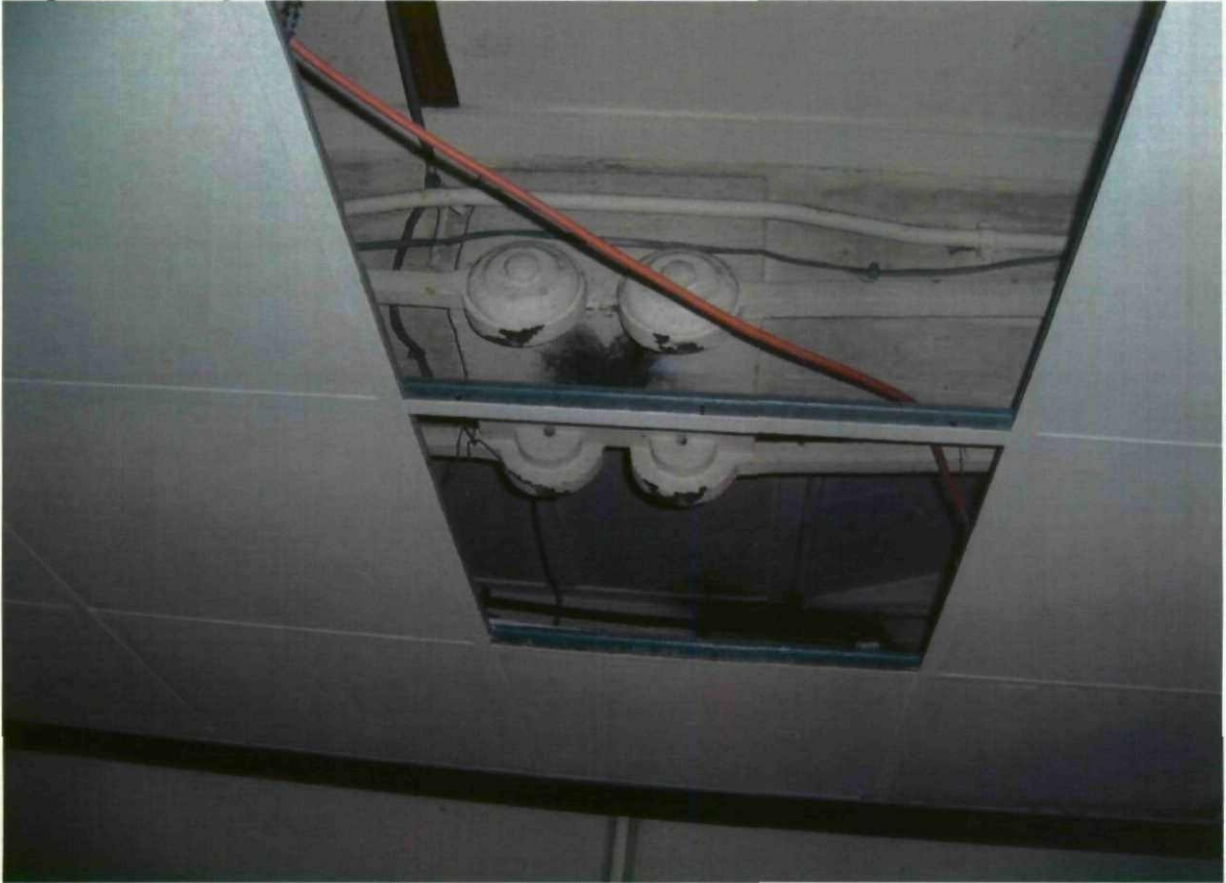
Trusses



Trusses



Suspended Ceiling/Trussed Beam



Purlin/Internal Walls



Timber Built into Wall

