

Roof Plan
Scale 1:100

Enabling Roof Works:

- Remove the full extent of existing concrete roll top ridge tiles (135m approx) including mortar bed. Allow for cleaning and storing existing ridge tiles where appropriate. Contractor is to advise the CA on the current condition and quantity of the ridge tiles that are suitable for re-use.
- Strip all existing lead work, simulated lead, felt or other linings to valleys, abutments, aprons, cover flashing's and slate soakers etc. from all duo pitched roofs and dormers and dispose off site.
- Remove all existing natural slates (900m² approx.) including timber battens and dispose off site. Allow for carefully cleaning and storing the existing roof slates where appropriate. Contractor is to advise the CA on the current condition and the quantity of slates that are suitable for re-use.
- Remove any existing roof membranes and dispose off site.
- Inspect condition of timber roof structure and report back to CA. Allow for cleaning existing roof structure prior to applying wood treatment.
- Prepare exposed timber i.e. rafter tails as required including removing any flaking paint and sanding down. Include a **PROVISIONAL SUM** for localised repair / splicing (20%) as required.
- Remove all rainwater goods including gutters, downpipes and hoppers. Take note of existing layout in preparation for installation of new.
- Allow for temporary removal / repositioning of any associated electrical cables fixed to roof, fascia's and soffits etc. Contractor to notify the CA and centre of any temporary downtime to services inc. telecommunication and data etc.
- **PROVISIONAL SUM:** Retain the existing bell tower over the main hall, remove flaking paint, defective material and prepare as necessary for refurbishment. Contractor to advise on the current condition and extent of works required for full refurbishment.
- Prepare all flat roofs including dormers in preparation for refurbishment and overlay systems as per Bauder Specifications: B232233.1 (Roofs 1, 2 & Dormers). Total area: 120m² (Approx.)
- Remove all existing timber fascia and soffit boards (60-90m) to flat roof perimeters and dispose off site. AIB soffit boards (Amosite and Chrysotile) detected. Refer to Refurbishment and Demolition Survey Report: LYL5040/CN. Contractor is to ensure all asbestos is removed in accordance with Control of Asbestos Regulations.

CONTRACTOR DESIGN PORTION:

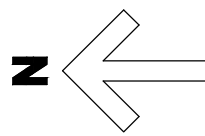
- Remove the existing concrete flat roof structure in its entirety. The contractor is to review the existing concrete flat roof structure allowing for structural surveys as required to determine the impact to the adjoining walls / buildings. The contractor must allow for repairs and or making good as required, temporary support, and all design in connection with the proposed replacement roof including all associated details. Refer to Structural Notes.

Proposed Roof Works:

- Treat all woodwork with 'Cuprinol Complete Wood Treatment or Equal and approved'.
- Install 300mm (total thickness) 'Rockwool Twin Roll' or equal and approved insulation over the new ceilings (access from roof level) providing a minimum U-value of 0.16 W/(m²·K).
- Install 50mm(min) Kingspan Kooltherm K107 pitched roof insulation board to the remaining roof slopes / eaves depending on existing rafter depths / roof construction (contractor to confirm). Minimum U-value to be 0.18 W/(m²·K) or greater where achievable.
- Install new 'Ubbink Ubiflex B3' or similar and approved simulated lead to all valleys, abutments, aprons, cover flashing's, slate soakers and where previously removed.
- Install 'Kingspan Nilvent' or equal or approved breathable membrane under roof slates for the full extent of roof. Tie into existing system and lap below existing slates.
- Install new 'Marley Universal' or equal and approved eaves ventilator system.
- Install new treated timber battens / counter battens as existing at centers to suit slate coursing.
- Reinstall the existing set aside roof slates. Allow for replacing 75% of the natural roof slates with artificial slates subject to breakages and condition. Appearance, colour, sizing and coursing (diminishing) to match existing. This item will only be expended upon instruction from the CA, upon confirmation from the contractor that the existing roof slates are damaged / defective. Re-instate existing slates to the east and north facing slopes (not facing Priory Road).
- Reinstall previously set aside concrete roll-top ridge tiles where appropriate. Allow or replacing 75% of the concrete roll-top ridge tiles subject to breakages and condition. This item will only be expended upon instruction from the contractor that the existing ridge tiles are damaged / defective.
- Carry out repairs / splicing to exposed timber i.e. rafter tails as required. This item will only be expended upon instruction from the CA, upon notification from the contractor that the exposed timbers are defective.
- Decorate all exposed timber. Apply 1no coat 'Dulux 'Weathershield' Primer, 1no Dulux 'Weathershield' Exterior Quick Dry Undercoat and 1no Dulux 'Weathershield' Topcoat or equal and approved paint suitable for external timber use. Colours to match existing.
- Install new half round uPVC gutters, downpipes and hopper heads (black) in exiting locations.
- Contractor to check whether there is any ventilation to the existing chimneys and report back to the CA. Include a **PROVISIONAL SUM** for installing 6no Sandtoft mushroom ventilation cowls to chimneys, re-point chimneys as required.
- The contractor is to carry out restoration works to the existing bell tower (submit proposals). **PROVISIONAL SUM.**
- The contractor is to allow for and submit proposals for temporarily removing and isolating any cables and services fixed to the existing roof structure including fascia's and soffits as required. There should be no loss of service to the community centre i.e. data and telephone however if temporary downtime is required the contractor should notify the CA and community centre immediately.
- Make good other flat roof areas including flat roof dormers (120m² approx.) and overlay with new BauderFlex roof system or equal and approved including lapping details at verges, upstands, kerbs and gutters as per Bauder report and specification B232233/1 (Roofs 1, 2 & dormers) and associated details. Contractor to carry out structural investigation of the existing flat roofs to ensure they're capable of supporting the additional load.
- Install new UPVC fascia boards (60-90m approx) to the perimeter of the bitumen flat roofs.
- Replace 1no timber door into the roof space leading in from the central flat roof.

CONTRACTORS DESIGN PORTION:

- Install a new timber flat roof structure with a reinforced bitumen warm roof system including 4no Velux curved roof lights (1m x 2m) over the central corridor to replace the existing concrete structure. Roof must comply with current Building Regulations and minimum UValue's 0.18 W/(m²·K). Contractor to ensure adequate falls for drainage in accordance with Approved Document Part H terminating at existing chutes, hopper and downpipe locations. Allow for any structural investigations / surveys as required including for temporary supports and internal surface protection (refer to Structural Notes). Submit proposals to the CA for approval. Internal ceiling height 2.5m (min). Contractor is to ensure that there is a minimum upstand externally of 150mm to the underside of the high level windows in the Hall (Room 13). This is to allow the sufficient upstand / flashing detail for the new roof. Refer to Bauder report and specification: B232233/1 (Roof 3).



Existing Roof Plan Key:

- Pitched roof slopes to have existing slates re-installed (where possible), new artificial slates and breather membrane (900m² approx.)
- Contractor Design Portion
- Concrete box grid roof structure (105m² approx.) to be removed and replaced with timber structure / deck and BauderFLEX reinforced bitumen membrane warm roof system (self adhered) or equal and approved as per specification B232233/1 (Roof 3).
- **Provisional Cost Item:**
- Contractor to review the existing concrete structure and include for a structural survey and investigations to determine the impact to the adjoining walls / overall structure prior to removal. Refer to Structural Notes.
- Existing flat roof areas (Roof 1 & 2) Inc. dormers (120m² approx.).
- Flat roofs to be made good and overlaid with new BauderFlex or equal and approved roof system including lapping details at verges, upstands, kerbs and gutters as per Bauder Report & Specification B232233/1 (Roofs 1 & 2) and associated details. Include for refurbishing flat roof dormers as per Bauder Report & Specification B232233/1 (Dormers) and replacing 7no roof lights with BauderDOME's or equal and approved.
- Existing rooflights to be removed and replaced.
- RL
- Bell tower to be refurbished.
- Location of door at roof level to be replaced.
- Location of existing gutters to be replaced.
- Location of existing downpipes to be replaced.
- Chimneys.
- Coping stones.

General Notes:

- The building has been identified as having moderate roosting potential for bats. The contractor is to be mindful of bats and nesting birds whilst stripping the roof. If any bats or birds are found the contractor must stop work immediately, inform the CA and await further instruction. 2 x bat emergence surveys have been instructed and a report will be provided to the contractor once received. Include a **PROVISIONAL SUM** for possible associate works.
- Condition of existing pitched roof structure is unknown and is to be inspected and repaired as required. Contractor is to confirm existing condition following the removal of the roof finish.
- Contractor is to include structural surveys and investigations as required in relation to replacing the flat roof structure over the central corridor. Contractor to advise the CA of their findings and submit proposals. Structural surveys and investigation to include the condition of the existing walls behind existing plaster and proposals for making good and repairing as required.

Asbestos

- AIB detected to the soffit boards (60-90m approx) to the perimeter of the modern flat roof extensions. Amosite and Chrysotile identified, refer to Refurbishment and Demolition Survey Report: LYL5040/CN. Contractor to ensure any asbestos is removed by a competent contractor in accordance with the Control of Asbestos Regulations 2012.

Concrete Flat Roof, Structural Notes:

It is assumed that the concrete slab is spanning between steel beams in a direction parallel to the adjacent internal walls. From visual surveys the slab appeared to span perpendicular to these steel beams and it is assumed that the steel beams will be set out at regular centres of approximately 2.0m along the corridor profile.

1no steel beam identified during a visual survey appeared to be significantly corroded due to water ingress and a defective waterproofing system externally. If they are to be retained either as part of another roof design or left in-situ with no change to the existing roof, then they need intrusive investigations to determine the level of corrosion, assess their condition and adequacy to be reused.

It is not possible to determine, without further investigations, whether the roof is providing any diaphragm load transfer action as part of the building stability system. Given the method of construction, it should be determined through intrusive investigations and consultation with a Structural Engineer before any removal of the existing concrete roof.

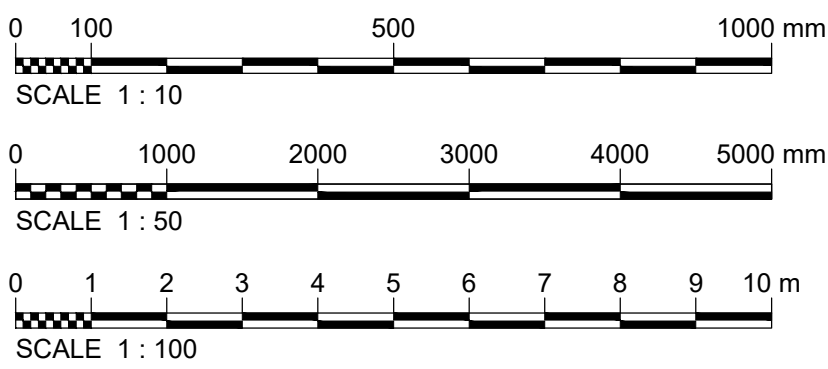
Design Considerations

If the concrete slab is spanning between the steel beams, not built into the masonry and is proven to be not forming a diaphragm for lateral stability, then there are two obvious methods of construction that can be used.

- The concrete slabs is to be removed, the steel beams to be either retained and repaired or replaced. Timber joists designed to span between the steel beams and 2 no. layers of plywood laid on top to be glued and screwed into the timber joists.
- The concrete is removed along with the steel beams. Timber joists are designed to span between the corridor walls and face fixed into the masonry walls with resin anchors or using a face fixed timber wall plate. **CONTRACTOR TO PRICE BASED ON USING THIS METHOD. INCLUDE PROVISIONAL SUM FOR POSSIBLE ALTERNATIVE METHOD FOLLOWING STRUCTURAL SURVEYS.**

If it is found that the concrete slab is in fact acting as a diaphragm then the new timber roof system should be designed to act as a diaphragm and adequately tied into the surrounding structure to transfer the loads. Care must be taken to have adequate temporary bracing and supports in place during the removal of the concrete slab and construction of the new timber roof.

Should the concrete slab be built into the masonry then, as mentioned, significant temporary support would be required to the masonry above the slab while the slab is removed. It is likely to require significant temporary works design and further intrusive investigations to the ground floor slab to check if it is adequate to support the temporary support loads.



Notes

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P2	State specification amended	NRL	B.J.L	SAS
		31.08.23	31.08.23	31.08.23
P1	Planning	NRL	B.J.L	SAS
		19.04.23	19.04.23	19.04.23
Ver.	Details	Author & Date	Checked & Date	Approved & Date
Client Mount View, Standard Way, Northallerton, North Yorkshire, DL6 2YD Tel: 01609 797373				
Project name Barnsley Metropolitan Borough Council				
Drawing Title The Dearne Renaissance Centre Roofing and Internal Refurbishment Works				
Proposed Roof Plans				
Purpose Planning				
Scale	Drawn	Checked	Approved	
1:10, 1:50, 1:100	NRL	B.J.L	SAS	
Original Size	Date	Date	Date	
A1	01.02.23	01.02.23	01.02.23	
Drawing Number	BC2206-APP-XX-XX-DR-B-000130			Version P2