

St. Beuno's Church, Clynnog Fawr.

Report 02: Outline Schedule of Work for Faculty Submission

(Phase 01 Ezra – Priority A Repairs).

Dated 20th June 2024.

	Detailed description of External Works (RIBA Stage 03)
	Category A – H&S Issue / Structural Defect / Urgent
1.0	(Ezra Report - Item 7.1.4.16) Inspect all high-level parapets and finials above nave and chancel in detail. A schedule of works should be put to hand for repointing and stabilization. Prioritized areas to repoint and check in detail on site include corner adjacent to south transept turret, area to southeast corner of the south transept, to the northeast corner of the north transept, to the southeast of the chancel and northwest corner. Also, above W17 and W20. These areas have all been reviewed in outline on the roof and need to be scheduled for repair in parallel with a scope of repointing to areas of voids. Ferrous iron fixings need to be removed, together with some localized and limited rebuilding, although justification may be difficult to establish where the fabric is ancient. Long term fixed propping may be more suitable as a conservation approach (recommended these works be reviewed with the Diocesan Advisory Committee).
1.1	See Roof Plan 100. Allow for scaffolding at high level to review both external and internal masonry of all parapets and finials, fully check all for stability. Remove mosses with hard wire brushes alone to discourage water pooling. No comprehensive replacements to any existing parapets and finials currently proposed, but this may need to be further reviewed following removal of moss and re-testing of finial and parapet stability at high-level on a parapet-by-parapet basis. This would be strictly reported to the Diocese to follow should there be any variation to that currently understood and proposed.
1.2	For the time being, this Faculty submission requests permission to proceed with a scope of repointing and soft plastic mortar repairs, on removal of mosses to all parapets and finials, and for some careful re-pinning of existing cracks and loose parts (using nominal 2-3mm steel pins) and to inject with resin mortar using fine stone dust to match existing sandstone and to shed water away from stonework and avoid ongoing pooling and moss growth. Following an initial review on site of all parapets and finials from the internal roof side, allow for up to (and no more than) 25% soft plastic mortar repairs and pinning to all parapets, and an allowance for re-pinning of cracks to all finials. Assume a high-level scaffold may be required at parapet level to assess and repair both internal and external sides of the nave, transept and chancel areas.
1.3	For finial F06, it may be, on further investigation from a scaffold platform, that some replacements may be required to parts of the finial pieces, should we find that the ferrous iron rod internally within the finials needs to be removed if stonework is split beyond a scope of more localised plastic repairs and re-pinning. Some further allowance should be made for discussion with the Diocesan Advisory Committee to agree a scheme for recording any comprehensively failed stonework, prior to instructing any replacements to a banker mason to replicate. Any replacement pieces should be formed to respect adjacent fabric and be agreed on a case-by-case basis, to match the existing but not causing differential erosion to adjacent pieces within any reprofiling proposed. It may be that there are localised areas of rebuilding required, but at present this scope assumes this is limited only to the north west corner of the north transept in area F06 unless otherwise reported.
1.4	At the same time as the above, allow for a scheme of localised repointing to rake out and replace all remaining hard, missing, or loose mortar to high level stonework, locally to the parapets at high-level as required, and this should allow for re-bedding parapet stones and finials with new mortar if found to be unstable on testing. Prioritized areas to rake out existing harder or loose pointing, to both external and internal faces, and fully repoint any voids on site include the corner adjacent to south transept turret, area to southeast corner of the south transept, to the northeast corner of the north transept, to the southeast of the

	chancel and northwest corner, also to the north-west and south-west corners of the nave, and to the south and southwest of the tower parapets. Also, above W17 and W20.
1.5	The mortar mix proposed is a soft hotmixed lime mortar (mixed on site) with 5-15mm kibbled Quicklime (not powdered), and unwashed (dirty) local Bryncir sands and aggregates. A nominal mix ratio of 1:3 quicklime and aggregate is proposed initially, seeking a good (aesthetic and physical) match with any existing (historic) 16th century mortar. Provide mortar samples on site for approval (min 5 no.), to be strictly agreed on site with the Contract Administrator (Conservation Architect) prior to producing pointing samples (min 3 no.) for approval as the agreed control samples for contracted works. Include samples with an NHL pozzolan (as a gauged hot mix).
1.6	In parapet positions P47, P48 and P49, and P81 – allow for localised re-leading work with access from scaffold.
1.7	In parapet coping stone position A (see Roof Plan 100, and P34) – allow for localised re-bedding of the coping stone, with new lead capping piece tied fully through to abutment, installed by a mason. Allow for steel Spiroties to tie stonework fully into tower wall and for local minor grouting / packing in of voids, raking out all cementitious material and fully repointing with a moderately hydraulic lime mortar (suggest St. Astier NHL 3.5 utilising same Bryncir sands as hotmix specified elsewhere). It may be on taking off the capping piece here that these repairs may vary, subject to further investigation. If this is the case, then this would be reported back to the Diocesan Advisory Committee.
2.0	(Ezra Report - Items 7.1.4.5, 8, 12, 15, 18). Tower: High level access to the top of the tower to be arranged as priority to establish the condition of finials, parapets and coping stones. Allow to further assess leadwork. Assume a contingency for repairs and scaffold, until inspected to confirm. Replace lock.
2.1	Allow to replace the existing lock and loosen the existing timber door to provide improved access to the tower for inspection and maintenance.
2.2	Allow for a cherry picker access to locally repoint high level masonry to the external face (assuming this is more cost effective than a scaffold). Repoint all hard mortars and loose / missing mortar locally to the southeast corner of the tower roof. The mortar mix utilised should be the same as that proposed and agreed for the nave parapets. Allow to rebed stone locally to parapets P45, and P83).
2.3	Allow a contingency for replacing all plastic parts and corroded iron fixings and connections of the internal rainwater system, see Photos 121.01 – 121.03. Include for re-sealing all connections to masonry and fully investigating all local areas for signs of water ingress.
Note.	Understood tower roof gutter recently unblocked and lead to roof recently made good.
3.0	(Ezra Report – Item 7.1.4.23). Allow to inspect roof timbers in parallel with areas of degraded parapets. Inspect all significant decorative timber and a record taken at the same time. Check all wall plates. Allow contingency for mobile scaffold, for some minor repairs and a timber report.
3.1	See Ground Floor Plan 101. Also Notes 102 and 103 from investigations and Appendix 2 for larger photos. Allow for further assessing damp timbers and ceiling boards at high-level within the north transept and the south-west / west wall of the nave. Timber Specialist (ex. Robert Demaus) to review the areas identified, advise on the presence of wood boring insects and how these may be treated, and to assess if timber resistance drilling can help establish the credibility of any suspect rotten structural members in the areas outlined as concern on Notes 102 and 103 (ie. northeast corner of north transept, and southwest corner of nave only). At present, although some of the members appear softer, we should assume no need to replace any ancient timbers without resistance drilling to verify otherwise as timbers do not appear significantly compromised or loose from limited inspection.
3.2	Further consultation with the Diocesan Archaeologist (Frances Llewelyn-Lynch) to be allowed, to check need to record timbers when above works are executed (or in anticipation of). Due to accessibility challenges, it may be prudent to execute this at the same time as the timber specialist is provided access unless this can be done from the photos provided.

3.3	On completion of roof and high-level masonry repairs and following a period of drying out for the internal fabric (assume a minimum 12 – 18 months) then allow for reviewing the internal plaster again and making good to all high-level loose and stained plaster within the north and south transepts and to the west of the nave, replacing loose existing plaster once dried, with a soft hot mixed lime plaster with limewash finish, on a like with like basis.
3.4	Allow to check and re-fix all ceiling bosses, including the one to the west that was found to be loose and removed on inspection (and is safely in storage by the parish on site).
4.0	Passageway roof. This item is a new Category A item.
4.1	Allow to fully scaffold area of passageway roof (taking great care not to rest scaffold poles on the stone roof structure itself, to avoid it taking any weight).
4.2	Fully inspect, and allow for raking out all cementitious mortar, and comprehensively repointing with a soft hot mixed lime mortar (mixed on site, as specified in Item 1.5). It is assumed there may be voids due to the nature of existing cracks, and on further inspection then these should be grouted.
4.3	Allow for a new curved lead flashing to passage roof abutments, stepped into the coursing of the adjacent tower and chapel walls, at a maximum height of 150mm. See photos 118.03 / 118.04
	<i>Ends.</i>