



*Report on the Condition of*

**CHRIST CHURCH, SWINDON, WILTS  
(Bristol Diocese)**

prepared for **Christ Church with St Mary's PCC**

**A N D R E W   T O W N S E N D   A R C H I T E C T S**

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Job no 1306

July 2022

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## **1.00 INTRODUCTION**

The quinquennial inspection of Christ Church, Swindon was carried out on Tuesday, 17th May 2022 by Oliver Wilson of Andrew Townsend Architects following the instructions of Stephen Grosvenor, acting on behalf of the PCC (email dated 25.4.22). The inspection was carried out during clear, sunny conditions following a period of intermittent rain showers.

All parts of the building were inspected where possible at close quarters apart from roofs and high level areas which were inspected from ground level using binoculars. The flat roof over the vestry was not inspected as no ladder access was available at the time of the inspection. No opening-up was carried out either prior to or during the inspection and it is therefore not possible to comment on areas which were covered, unexposed or otherwise inaccessible at the time of the inspection.

The previous quinquennial inspection was carried out by Anthony Feltham-King of St. Ann's Gate Architects LLP in May 2014. A copy of the 2014 report was made available to ATA prior to carrying out the current inspection. Daniel Pitt, Michael Palmer and Rev. Simon Stevenette met Oliver Wilson on site on the day of the inspection.

## **2.0 WORKS CARRIED OUT DURING THE LAST QUINQUENNIAL**

The log book was made available at the time of the inspection, however updates to it appears to have ceased around 2015. We suggest an up-to-date log book for works to the church fabric should be maintained.

The following works were recorded in the logbook:

- Repairs to organ in December 2015 by JW Walker
- Repointing of north & south transept, 2014-2015 by James Roberts
- Repointing of steps outside vestry September 2015 by Colin Taylor, Swindon
- Provision of new light in the lady chapel (no date)

- Asbestos removal from the old boiler room under the choir vestry, March 2014 carried out by Merryhill Environmental
- Patching of roof, spring 2015, carried out by Bob Skinner
- Annual testing of the lightning conductor system, (log book reports last carried out 2015 by Wiltshire Steeplejacks)
- Annual checking of the fire extinguishers February 2019 (log book records last tested 2015 by Bristol Fire)
- Testing of the electrical installation (log book reports last carried April 2015 by AJ Smith, Gloucester
- Annual Gas safety check (log book reports last carried out April 2015 Gary Hall Ltd RWB)

According to the parish website, and following discussions with the PCC buildings team, we understand the following works have also been carried out:

- Refurbishment of the church interior including new heating provision, floor coverings, overhaul of lighting and minor re-ordering, 2016
- Renewal of roof coverings to the nave, chancel, transepts and aisle roofs and high level masonry repairs, carried out by Bob Skinner 2019
- Repairs to the south transept window, completed December 2019 by Holy Well Glass.
- Creation of Garden of Remembrance, completed 2019.

### **3.00 BRIEF DESCRIPTION OF THE CHURCH**

The construction of Christ Church was commissioned in response to the growing population of Swindon in the mid-19th century. It was the fourth, and final, building designed by George Gilbert Scott in Swindon and was consecrated in November 1851. The building consists of a chancel, a nave crossed with transepts and lower, lean-to aisles. The church has a sizable tower with an octagonal broached spire to the west front which, from the church's hillside location, makes it a notable landmark in Swindon.

All external stonework is formed in rock-faced sandstone rubble with ashlar limestone dressings. All pitched roofs are covered in Welsh slate. Internally, the walls are formed in finely dressed ashlar limestone which is un-painted throughout. There are visible ghost shadows of former painted decoration in the chancel, and one survival of such decoration above the west door in the nave. The nave, chancel and transepts are tall and lofty with well-proportioned arcades leading to the aisles. The general muted atmosphere of the church interior is in contrast to the effect of the exuberant coloured glass windows, in a manner typical of Gilbert Scott's work in the High-Victorian Gothic style.

The church is located within a woody hillside churchyard of approximately 2.3 hectares which includes a car park, a number of memorial gardens and the church community centre, opened in 2013.

### **4.00 SUMMARY OF CONCLUSIONS**

Christ Church has benefited greatly from repairs and improvements carried out in recent years as a result of the concerted efforts of the PCC and building maintenance committee. The spire and high level masonry have been repaired and the roof coverings fully overhauled which now leaves the building in a good state of general repair.

The external carved/ashlar work is beginning to show signs of its age, and would now benefit from minor repairs/consolidation in order to slow down the rate of decay. Repairs to the west boundary wall have been called for in previous inspection reports and we recommend this work should now be undertaken.

Concerns have been expressed by the PCC about the sustainability of the church and its use, with particular regard to the provision of heating. An energy/sustainability audit would be a good first step in planning for improvements in this regard and the PCC should give consideration to carrying this out during this quinquennium.

## **5.00 SCHEDULE OF DEFECTS – EXTERIOR**

### **5.01 Walls, windows and doors**

- i) *The following defects were noted to areas of dressed masonry (starting from the east wall of the chancel):* advanced ‘soft bed’ erosion (ie where there are inherently weaker planes within the stone) to the apex stone supporting the cross at the top of the east gable; blistering to the head of the south buttress tabling stones; light blistering to the face of the ashlar stones to both sides of the this buttress at high level; slight frassy decay to the south of the same buttress and to the lower section of the south buttress; the corners of the ashlar quoins are generally damaged at low level, probably due to a combination of frost damage, salts and also impact damage; slight soft bed erosion to the face of the kneeler stone on the north slope; soft bed erosion to three stones on the upper sections of the north quoins of the northern buttress; surface decay to the quoins on the south side of the same buttress at low-mid level and to the lowest ashlar stone on the north corner of the same buttress; copper staining to the ashlar tracery of the east window caused by run off from the stone guards; slight sulphation/staining to the upper sections of the tracery generally; erosion to the shoulder areas of the carved head to the south springing of the east window; slight erosion to the carved head of the north springing of the same window; delamination to the string course to the north side of the string course below the east window; advanced decay to the capping stone of the east buttress on the north elevation of the chancel; minor delamination to the frieze stonework on the east wall of the vestry; some open joints to the string course beneath this; damage to the quoins adjacent the vestry door to the east buttress on the north wall of the chancel, which appears to have been previously repaired using dense cement-based mortar; slight sulphation staining to the upper jambs and head of the vestry door and open joints to the left-hand of the head of the vestry door; very slight delamination to the dressed masonry of the jambs and head of doorway to the old boiler-house; open joints to the stonework to the head of the same door; several modern cuts/holes to the

lower sections of the left-hand side jamb of the same door where services/pipework has been installed; cracking to the lintels of the ventilation opening in the east wall of the new boiler house, caused by jacking of the masonry from rusting of the steel louvres within the openings; very slight blistering to the quoins at the corner of the east wall and north wall of the vestry; cracking to the jambs and lintel of the ventilation opening in the north wall of the boiler house – again due to jacking caused by rusting of the ironwork ventilation louvres; slight open joints to the ashlar work to the head of the north window of the vestry; slight open joints to the corbelled ashlar masonry of the capping to the north to the buttress on the east wall of the north transept; copper staining to the tracery of the window in the north transept; slight sulphation staining to the tracery at high level; decay to the tracery of the same window; slight blistering and delamination to the stonework beneath the west springing of the north window in the north transept; decay to the nose and chin of the carved face to the left-hand springing of the north window of the north transept; soft bed erosion to two stones in the left-hand jamb of the north window in the north transept; slight frassy decay to the ashlar stonework beneath the carved head to the left jamb of the north window in the north transept; slight blistering and surface decay to the quoins of the buttress of the north transept at low-mid level; slight decay to the fleur-de-leys capping of the large tower buttress of the north aisle; decay and small missing section of stonework to the hood mould above the east window in the north aisle; frassy decay to the left-hand springing of the same window; very slight decay to the ball flower carving to the right-hand springing of the same window; rust staining to the tracery where window guards were previously fitted; very minor soft bed erosion to the quoins of the upper section of the most western buttress of the north aisle; very minor sulphation staining below the string course of the same buttress; frassy decay to the kneeler of the tabling to the junction the north and west walls; delamination to the stonework capping on the north side of the northern buttress on the west front; minor frassy decay to the quoins of the same buttress at upper level; minor frassy decay around the left-hand springing point of the northern window on the west front, which has recent mortar repairs; minor open joints to the tracery of the same window at mid-level; slight decay to the strings course below the right-hand side of this window; minor frassy decay to the head of the second lancet window (from the bottom) of the tower stair; soft bed erosion to the quoins of the stair tower appear have had previous mortar repairs; frassy decay to the lower string course to the north side of the northern tower buttress on the west front; slight soft bed erosion to the ashlar quoins to

both sides of the same buttress; the apex coping to the west porch is heavily decayed on the north side, to the extent that its overhang has eroded away; open joint to the south side of the same stone; very minor frassy decay to the underside of the tabling stones on the north side generally; one open bedding joint to the tabling stones to the south side at low level; two open perpendicular joints to the upper tabling stones; frassy decay and blistering to three stones of the hood mould on the north side of the west door; advanced soft bed erosion to the lower two stones of the string mould to the south side of the west door; advanced facial decay to two stones of the string mould at upper level; the carved faces at the springing points to both sides of the door are heavily eroded; some blistering and surface decay to the lower sections to both sides of the west doorway arch; advanced decay to the capitals and shafts of the pillars to the left-hand jamb of the west door generally and to the chamfered section of the same jamb, previous mortar repairs appear are detaching from the stonework; similarly, previous mortar repairs carried out at low level to the right-hand jamb of the west door appear to be failing; advanced decay to the ashlar quoin stones of the south buttress of the west wall of the tower at mid-high level; advanced delamination to the underside of the string course to the buttresses in the south-west corner of the south aisle; south elevation of the south porch: soft bed erosion and/or impact damage to the quoin stones to the lower sections of the quoins to the western buttress; slight erosion where water has been running off to the top of this buttress where it meets the junction of the south and west walls; similar soft bed erosion to the upper kneeler stones of the east buttress; soft bed erosion to the upper quoins and kneelers of the south tower buttress; open vertical joints to the parapet copings of the west wall of the south porch; very slight sulphation staining to the head of the quatrefoil clerestory windows generally; slight horizontal fracturing at the head of the west window in the south aisle; very slight frassy decay to the underside of the hood mould, carved ball flower to the northern springing of the hood mould is missing to the southern side; slight horizontal fracturing and open joints to the head of the tracery, rust staining to the tracery of this window generally where window guards were previously fitted; very slight decay and fracturing to the dressed masonry at the base of the same window; one nail fixing at mid-level on the left-hand jamb; the string course has also been cut in an number of places all around the church perimeter to accommodate the provision of new downpipes; very slight surface decay to the carved heads to the springing of the west window in the south transept; a section of the lower string course is missing to the left-hand-side of the east window in



the south aisle; soft bed decay to the capping stones of both buttresses on the south wall of the south transept; erosion to the quoin stones to the upper sections of both of these buttresses; damage to the east corner of the upper string course to the east buttress in the south wall of the south transept; very slight copper staining to the dressed masonry and soft bed erosion generally to the upper sections of the east jamb of the south window in the south transept; very slight frassy decay to the western section of the frieze to the south wall of the lady chapel; very slight frassy decay to the tracery of the western window in the south wall of the lady chapel; soft bed erosion at the junction of the cill and mullions of the south window in the chancel; very slight copper staining to the cill and tracery of the same window; very slight open joints to the string course and the ashlar masonry to the diagonal wall at south east corner of the lady chapel; slight frassy decay to the right hand and to the lamb held of the carved figure of Christ in the east wall of the lady chapel;

- ii) *The following defects were noted in areas of plain rubblework walling:* three stones replaced below the window in the east wall of the vestry, with some rust staining below these stones, presumably from heating vents previously fitted in this location; rust staining below the north window in the east wall of the vestry; two flue outlets below the same window with metal mesh guards, one also having an aluminium wind-baffle; open joints to the concrete capping stone of the dwarf wall which leads to the doorway of the new boiler house; two patches where rubblework has been replaced to the north wall of the north transept at low level; patches of replacement stonework below each of the three windows in the north aisle presumably where previous vents have been removed; generally some open joints to the lower 100mm of stonework all along the north aisle; some very minor open joints to the stonework course beneath the windows of the north aisle; delamination to the string course beneath the central window in the north aisle;; minor blistering and facial decay to the quoins of the lower sections of the same buttress; partially decayed timber covering to lightning conductor down-tape towards the west end of the north aisle; rubblework has been replaced beneath the north window in the west front, presumably where previous iron grilles have been removed; cementitious strap pointing failing in a number of areas the west wall of the south porch; very slight cracking at the junction of the south porch with the south aisle; open joints below the hopper on the east wall of the south porch; slight open vertical joints in the rubblework masonry of the second buttress from the west in the south wall of the south aisle; two open vertical joints below the

central window in the south aisle; as noted elsewhere, sections of rubblework have been replaced below the windows in the south aisle, presumably where iron ventilation grilles have been removed in the past; slight rust staining at low level to the south wall of the south transept and patch stonework, presumably from iron grilles, now removed; one vertical open joint between the ashlar quoin and the rubblework masonry to the east face of the east buttress in the south wall of the south transept.

- iii) The north wall of the north aisle appears to have been re-pointed relatively recently; cracking to one rubblework stone of the vestry parapet with the buttress of the north aisle.
- iv) *Windows:* paintwork to the crittel-type windows of the vestry is generally tired; poly-glass protective covering to the window to the eastern window in the north aisle has succumbed to damage by UV-light; west-facing window in the south porch appears to have been refurbished recently and has a new stone guard; ferramenta of the clerestory windows in the west wall of the south porch are slightly corroded; rusting ferramenta to the west window in the south transept; one of the ferramenta to the left-hand light of the west window in the south transept appears to be dislodged on one side; poly-glass stone guarding to the western window in the south wall of the lady chapel.
- v) *Doors:* slight rusting to the external ironwork of the door of the boiler house; slight decay to the boards at the foot of the same door; advanced soft bed erosion to eastern jamb of the south porch door; soft bed erosion also to the base and shafts of the lower sections of the columns of the same door; very slight surface decay to the hood mould above the south porch door

## 5.02 Roofs and rainwater disposal

- i) *Roofs:* the roofs of the nave, aisles, transepts and vestry are covered with Welsh slate capped with cut limestone ridging and with abutments formed with lead covering flashings. Secret gutters to gable parapets and abutments. The previous quinquennial inspection report describes diminishing courses to some slopes, it appears that, since the 2014 inspection, all of the roof coverings have been renewed with new uniformly-sized slates throughout. The roof of the west porch

is formed in corbeled, dressed limestone. The lead-covered roof of the vestry was not inspected as access was not available at the time of the inspection, however the previous 2014 QI noted that the roof covering here was renewed during the quinquennium previous to that. The following defects were noted to roofs and high level areas: five of the stepped cover flashings to the abutment of the south slope of the nave with the west tower are bent upwards, presumably lifted by the wind; very slight moss growth to the north slope of the nave and to the north aisle; vegetation growth to the north and south slopes of the west porch.

- ii) *Rainwater disposal:* cast-aluminium gutters and downpipes from the nave lead on to the aisle roofs; cast-aluminium gutters and downpipes on the south transept discharge on to the south aisle roof to the east side and ground level on the west side; lead-lined parapet gutters discharge into hoppers and cast-iron downpipes to the south porch; slight vegetation growth in the hopper to the north chancel aisle

## **6.00 SCHEDULE OF DEFECTS – INTERIOR**

### **6.01 Spire**

- i) The spire is easily accessible via a new steel platform at belfry opening level and a steel ladder with safety loop. Spire walls are formed of rubblework with three bands of ashlarwork placed between the belfry openings and the apex; ashlar quoins where each of the spire faces adjoin. The spire walls are quite thin, the churchwarden reports that saturation of the stonework occurs during times of heavy rainfall, resulting in substantial water ingress. Because of this, a waterproof deck has been constructed at the base of the spire, which has two rainwater outlets which discharge through the openings of the ringing chamber at the lower level. The rubblework masonry of the spire has recently been re-pointed internally. Staining of the spire internally suggests that water ingress through the masonry is still an issue.
- ii) Four belfry openings, one to each of the cardinal points of the spire; each of these openings has been fitted with substantial mechanical baffles constructed from pressed galvanised steel. The baffle mechanisms feature moveable blades on the inside and an actuator mechanism to open/shut them remotely from the base of the tower. Beyond the moveable blades, the outer part of the baffles are fitted

with bird mesh (10mm sq) and fine insect mesh (2mm sq). According to the churchwarden, the baffles were introduced to prevent rainwater ingress into the tower via the belfry openings, but it was later discovered that the main means of water ingress was through the spire masonry, not through the belfry openings. Inspection of the belfry openings and their louvres was not possible due to the internal baffles being in the way; some of the baffle blades are beginning to corrode, particularly at lower level to the west and south sides – this appears to have advanced slightly since the previous report was carried out in 2014.

- iii) Lighting in the spire is provided by means of two vertically-mounted fluorescent tubes which are switch-operated from a lower level.

## 6.02 **Bell chamber and belfry**

- i) Peal of ten bells set within a steel frame bedded directly into the outer masonry of the tower; the bells were re-cast and re-hung in 1924 by Taylors of Loughborough replacing an earlier set of six, the peal also includes two bells taken from the Church of the Holy Rood, Swindon. A number of stays have recently been replaced and two of the wheels have had replacement rims (formed from a combination of ash and plywood) following a breakage since the previous report was carried out. The churchwarden reports that maintenance of the bells is carried out routinely on an ad-hoc basis, together with maintenance checks.
- ii) The internal masonry at the lower level of the belfry is formed in rubblework with limewash finish. Lower sections of the upper belfry openings have been filled with brickwork and partially with a concrete levelling course which supports the galvanised steelwork of the access platform above, beneath which there are remains of tin flashing, supposedly part of a previous decking arrangement. The lower belfry openings are closed internally with boards placed in vertical channels, these are removable but don't appear to have been removed for some time. The upper quatrefoils of each of the belfry openings are blocked with slate panels held in place with daubs of mortar. There are several holes for previous fixings in the ashlarwork and rubblework of the belfry masonry internally.

- iii) *Floor*: formed in plain timber boards with a large hatch at the centre for lowering/lifting the bells.

#### 6.03 **Ringling chamber**

- i) *Ceiling*: the ceiling in the ringling chamber is formed in painted boarding with a hatch for lifting bells in the centre; ten bell ropes with a spider attached to a pulley at the centre of the room; late 19<sup>th</sup> c cast iron spiral staircase rises to the ringling chamber in the south-east corner of the room.
- ii) *Walls*: formed in painted rubblework masonry with timber panelling to shoulder height; clock mechanism mounted on the west wall (originally from Holy Rood Church).
- iii) *Windows*: two lancet windows on the west wall; damaged leadwork comes to the northern window, glazed over internally; one cracked quarry in the upper and lower panes of the same window; two cracked quarries in the upper section of the south window in the west wall; one broken quarry in the second section from the top of the same window; internal over-glazing to the second panel from the bottom to the south window in the west wall; quarries in the lower panel of this window undulate slightly; lancet window in the north wall with one dislodged quarry in the opening section.
- iv) *Floor*: covered with carpet with a hatch in the centre for lifting/lowering the bells; individual mats below each of the bell ropes to prevent wearing-out of the carpet beneath them.

#### 6.04 **Old boiler room**

- i) The old boiler room is located beneath the vestry, to the north of the chancel.
- ii) The roof is formed of vaulted brickwork with an old limewash finish.
- iii) Walls are formed in limewashed rubblework. There are a number of holes in the masonry through to the sub-floor of, through which hot air was previously

ducted; the floor is stepped, formed in a combination of concrete to the lower level, panments to the upper level and OSB board infill around the door.

- iv) The churchwarden reports that the old boiler room regularly floods but the floodwater is dealt with by a sump in the floor next to the doorway, which is boarded over.

#### 6.05 **New boiler room**

- i) The new boiler room is located to the north of the old boiler room and linked to it two ogee-headed window openings which both accommodate pipework for the heating system.
- ii) *Ceiling*: formed of hardboard with floorboards above; the hardboard ceiling is punctured in a number of places, scored and generally tired/worn.
- iii) *Walls*: south wall (external wall of the chancel) formed of dressed rubblework; north, west and east walls are formed in concrete blockwork.
- iv) *Floor*: formed in a concrete screed.
- v) Openings: ventilation openings in the north wall have fabricated steel louvres which are corroding; modern hardwood door in the west wall.

#### 6.06 **Nave**

- i) *Walls*: west wall is ghost-stained where previous electrical or other service fittings have been removed; various holes in the masonry from fixings.
- ii) Floor around the entrance at the west end of the nave and aisles is formed with unglazed tiles; sunken mat well with haired rug to the west doorway. Floors to the nave, north/south aisles and transepts are formed from hardwood parquet and are raised approximately 150mm above the tiled areas thus forming a single step inside the south transept door marked with safety tape and sign-posted as a trip hazard; service ducts covered with aluminium grilles beneath the pews to the north and south of the central aisle; parquet flooring appears generally to be in sound condition however there is a large gap approximately 25mm which runs

the whole way around the perimeter and forms awkward junctions with the bases of columns, pulpit and other permanent fixtures within the church. Black and red unglazed tiles with encaustic decoration to the choir; chancel and altar area raised similarly over three steps; two further steps to the altar and reredos formed with 19<sup>th</sup> c encaustic tiles with dark marble steps. The floor of the Lady Chapel is formed with limestone slabs to the central aisle and hardwood parquet flooring beneath the pews; modern carpet laid over the central aisle and altar area of the floor which appears to be in reasonable condition although it is slightly worn adjacent the altar rail and stained beneath the candle stand adjacent to the south wall; cut-out section of parquet flooring adjacent to the radiator in the south transept

- iii) *Ceiling:* Roof structure formed with dark-stained arch-braced trusses with collar ties resting on corbels at clerestory level, with every second set of collar ties arch braced; exposed purlins, secondary principal rafters and boarding. Inspection was limited due to lack of visibility, no defects were noted.

#### 6.07 North aisle

- i) *Ceiling:* Exposed dark-stained roof structure, as the nave. No defects were noted.
- ii) *Walls:* water staining above the west window, probably caused by previous water ingress since rectified by the recent re-roofing work; slight stepped cracking running from the head of the west window in the north aisle towards the roof and downwards from the springing point of the northern jamb of the same window towards the junction with the north wall; similar stepped cracking running from the junction of the cill and the right-hand jamb of the same window towards the junction of the west and north wall at low level; extensive damage to stonework below the west window of the north aisle, possibly due to recent installation of the heating system; very slight opening of vertical joints in stonework above the west window in the north wall of the north aisle; very slight frassy decay to the surface of the stonework of the north wall towards the west end at high level; signs of previous water staining along the north wall generally, probably caused by previous water ingress which has since been rectified by the recent re-roofing work; very slight opening of vertical joints above the east window in the north aisle.

#### 6.08 North transept

- i) *Ceiling:* Exposed dark-stained roof structure, as the nave. No defects were noted.
- ii) *Walls:* Repairs to masonry pointing where structural movement has occurred in the past above the west window.

#### 6.09 South aisle

- i) *Ceiling:* Exposed dark-stained principal and secondary rafters, purlins and boarding. No defects were noted.
- i) *Walls:* Stepped opening of joints above the west window (previously re-pointed) and similarly running from the head of the east door upwards approximately 1.5m; staining from previous water ingress above the same window; slight blistering to the stonework of the west wall in the south-west corner at high level; staining to the walls generally in this area from previous water ingress; general staining, blistering and surface decay to the stonework towards the west end of the south wall at mid-high level; stepped opening of joints above the archway between the south transept and south aisle with structural movement monitors fixed to both sides of joints; similar stepped opening of joints running from the springing of the same arch towards the wall plate level above the west window in the south transept, again with structural monitoring points fitted.

#### 6.10 South transept

- i) *Ceiling:* Exposed dark-stained roof structure, as the nave. No defects were noted.
- ii) *Walls:* Vertical crack, approximately 1m long by 2mm wide to the right-hand-side of the west window in the south transept; general water staining beneath the south window; stepped opening of joints above the archway between the south transept and Lady Chapel running upwards to the north for approximately 1.5m.



## **6.11 South porch**

- i) *Ceiling*: formed in vaulted stonework; the stonework in the south porch is generally darkened by sulphation-staining combined with natural oxidisation of the stone.
- ii) *Walls*: formed in dressed ashlar stone which have general sulphation-staining and oxidation to the surface.
- iii) Modern glazed screen door and surround with hardwood farming wall to the west door: the churchwarden has reported the door is draughty.
- iv) *Floor*: formed of flag stones which have some open joints but are generally level underfoot.
- v) Painted wooden noticeboard on the south wall and a memorial plaque to the left-hand jamb of the inner west door.
- vi) Some blistering of stonework and pockmarking to the masonry where previous fixings have been removed around the inner west door.
- vii) Stained oak inner doors with scrolled hinges.

## **6.12 Chancel**

- i) *Walls*: Slight water staining to the stonework beneath the south window; slight open joints to the cill of the east window; slight opening of vertical joints stepping from the right-hand side of the jamb of the north window downwards towards the junction of the north and east walls; very slight opening of vertical joints into the sloping cill of the north window.
- ii) *Floors*: glaze has worn off some of the quarry tiles near the door into the vestry.

## **6.13 Lady Chapel**

- i) *Ceiling*: some water staining to the coffered plaster ceiling of the Lady Chapel, probably due to water ingress prior to renewal of the roof coverings.

- ii) *Walls*: one perpendicular open joint to ashlar masonry in the south wall of the altar area in the Lady Chapel; slight frassy decay caused by migration of salts in the same area

#### 6.14 Vestry

- i) The vestry is formed of two rooms, the outer vestry and the inner vestry, which are situated above the old and new boiler houses respectively.

##### *Outer Vestry*

- ii) *Ceiling*: formed with chamfered softwood beams resting on stone corbels to the south wall and on a wall plate to the north wall, timber joists exposed boarding.
- iii) *Walls*: formed in painted ashlar stonework; modern oak cabinetry to the south and west walls.
- iv) *Floor*: covered with patterned carpet showing signs of wear; mat well by the door in the east wall.

##### *Inner vestry*

- i) *Ceiling*: formed of painted plaster; hairline crack running east-west across the ceiling.
- ii) *Walls*: formed of painted plaster.
- iii) *Floor*: covered with patterned carpet showing signs of its age.

#### 6.15 Monuments and memorials

- i) *Ringing chamber*: stone monument on the south wall commemorating victory of the allies and pealing of the bells
- ii) *South transept*: large alabaster and marble memorial to the dead of the 1914-1918 war at the west end of the south wall.

- iii) *Chancel*: ghost-staining on the walls at high level and below the cill line of the north window where previous monuments/memorials have been removed; similar ghost staining on the south wall; grey marble wall plaque in the south wall of the chancel to Ambrose Letheridge Goddard; alabaster reredos to the memory of Ambrose Ashford Goddard depicting the assumption and banishment from the Garden of Eden.

#### 6.16 **Furnishings and fittings**

- i) *Ringing chamber*: two mid-late 20<sup>th</sup> c bookcases on the south wall; two wooden ladders; one aluminium two-part ladder; twelve plastic chairs.
- ii) *Chancel*: two tall brass and ironwork candle holders; oak/leather chair; two small reading tables; two oak chairs on the transition of the choir and the chancel; one small oak reading table in this area;
- iii) *Lady Chapel*: iron candle stand to the memory of Joan and Ernest Bishop; oak altar; modern oak reredos; tabernacle concealed behind oak casing on the north wall; modern oak screen at the entrance to the Lady Chapel
- iv) *South transept*: oak bookcase; two modern glazed book display cabinets; modern children's play area and chairs; modern painted crucifix; three cabinets for holding children's toys
- v) Large octagonal alabaster pulpit to the left hand-side of the chancel arch, depicting St Stephen, St Barnabas, St Paul, St Peter and Christ within its alcoves; large brass eagle-crested lectern to the right-hand side of the chancel arch, with ad-hoc podium made from waste timber.
- vi) *Outer Vestry*: oak cabinets; electric organ; numerous modern bookshelves; early 20<sup>th</sup> c hardwood folding table; various photographs of choirs and church staff mounted on the walls.
- vii) *Inner vestry*: rudimentary shelving and hanging for vestments on the west wall; large safe in the south-west corner; modern fitted oak shelving at high level along the west wall; loose standing cabinet and chest of drawers (both mid-late 20<sup>th</sup> c) along the north wall; fitted oak cabinets at high level on the north wall to the left

and right of the north window; freestanding table and chair beneath the window on the east wall; basin with single cold tap located in the south-east corner; reproduction of 17<sup>th</sup> c priest's chair (probably late 19<sup>th</sup> c); two brass altar candlesticks; two tall wooden candlesticks; three brass patens; two large brass jugs; two stout brass candlesticks; two brass vases; small brass bowl.

## **7.00 GENERAL**

### **7.01 Fire precautions**

- i) *Lightning protection*: lightning conductor on the spire with down-tape emerging through the north belfry opening and down the north side of the tower & west end of the north aisle. The Church log book records that the lightning protection system was last tested in 2015.
- ii) *Fire safety*: one Co2 and one water-based fire extinguisher beside the doorway in the ringing chamber; water-based fire extinguisher mounted on the west wall in the south transept; CO2 extinguisher located in the chancel; water-based fire extinguisher in the Lady Chapel; fire extinguishers were last tested in February 2019
- iii) From October 2006, the PCC has been required under *The Regulatory Reform (Fire Safety) Order 2005* to carry out a fire risk assessment to focus on the safety of all 'relevant persons' in case of fire, paying particular attention to those at special risk, such as the disabled or those with special needs. For further information go to [www.communities.gov.uk](http://www.communities.gov.uk) under the heading *Fire Safety Law*.

### **7.02 Security**

- i) CCTV recording equipment mounted in the south belfry opening, facing the belfry interior.
- ii) Alarm system for the lead roof over the vestry – the churchwarden reports that this alarm is not operational at present but repairs to it are scheduled.

### 7.03 Services

- i) *Heating & Electrical:* Electric panel heaters on the north and west walls of the ringing chamber; circuit board on the corner of the west and south walls in the ringing chamber at mid-high level; church interior is heated via cast iron column radiators by two gas central heating boilers located on the east wall of the new boiler room (supplied and installed by Edward Bays Ltd in 2017); historic metalwork plate in the new boiler room noting that the heating apparatus was supplied and fixed by Bays & Company, Castle Works, Wood Street, Swindon in November 1906; electrical cupboard with various switches and distribution boards mounted to the right-hand side of the west door in the south transept; electrical distribution board in the north-west corner of the Lady Chapel; controls for the heating system are mounted within the alcove on the north wall of the vestry.
- ii) *Lighting provision:* two fluorescent tubes in the ringing chamber – one on the south wall above the window and one on the north wall above the window; downward pointing spot lamps from wall plate level in the chancel, nave, north and south transepts; hanging chandelier in the Lady Chapel; blue hued up-lighting to the east window; strip up-lighting to a number of the coloured glass windows including the south transept window, north transept window, east window; back lighting behind the crucifix in the Lady Chapel.
- iii) *Audio-visual:* retractable projector screen mounted behind the chancel arch; it is not known whether a hearing loop is installed.

### 7.03 Churchyard

- i) *Lighting:* Spotlights mounted on the buttresses of the north transept for lighting the spire;
- ii) *Noticeboards:* glazed lockable noticeboard to the right-hand side of the west door.
- iii) *Boundaries:* the eastern boundary is formed with a relatively new 1.7m high security fence; the northern-most boundary is formed with a mortar-capped

rubber wall, which partially retains to the churchyard side; the western end of the south boundary formed of close-boarded fence backed by broadleaf hedging and trees; west boundary (which adjoins the rear of the vicarage) formed by iron railings with pointed finials and the west boundary (abutting the public highway) formed of a rubblestone wall topped with a wrought iron fence, the masonry to the west face of this boundary is in poor condition with masonry open joints and some rubblework stones in danger of becoming dislodged; the south boundary (towards the east end) formed of a low rubblework wall topped with a modern steel fence which changes to a slightly higher rubblework stone wall as it approaches the church and community centre. Parts of the churchyard boundaries, particularly the northern boundary and parts of the southern boundary, appear to be made up from gathered pieces of lost memorials – some modern, some historic. A reflection garden forms part of the churchyard curtilage, situated to the east of the new community centre.

- iv) *Trees*: avenue of cedar trees along the eastern part of the southern boundary; numerous mature pines and deciduous trees including willows, sycamore, horse chestnut, beech and ash scattered throughout the churchyard.
- v) *Paths*: a number of public footpaths running through the churchyard for the most part covered with asphalt, sometimes edged in with stone or concrete curbing. The paths are generally in good condition, however there are some areas where the asphalt is starting to break away, is cracking due to roots of nearby trees, or where potholes are forming; the Vicar expressed a desire to carry out repair works to the paths throughout the churchyard in the near future.
- vi) At the time of the inspection, the vast majority of the churchyard was un-mown to encourage bio-diversity over the summer months. Un-mown areas generally have narrow pathways mown through them for people to walk.
- vii) Recently landscaped Memorial Garden for the interment of ashes situated to the east of the chancel, formed of raised beds with corten-steel type edging running north-south adjacent the east wall of the chancel. Near to this is the rose garden: at the time of the inspection a notice board stated this area was under repair.
- viii) *Grave markers*: vast number of headstones and monuments within the churchyard, ranging in date from the late 19<sup>th</sup> c up to the present day. A number of the churchyard monuments were noted to be leaning, and upon limited

inspection (due to the time constraints allowed for the survey), some were found to be unsteady. The PCC should continue to carry out assessments of churchyard monuments and carry out repairs as necessary.

#### 7.04 **Disabled access**

Level access into the church is available via the west and south porch doors.

The Equality Act 2010 determines that Churches have a legal duty to take steps to make reasonable adjustments to avoid direct/indirect discrimination including for disabled people, and wherever possible should provide extra help, make changes to the way they provide services and/or make reasonable adjustments to the physical features of their premises to overcome physical barriers to access. We recommend the PCC should commission or carry out an access audit (if this has not already been undertaken), as a first step to complying with legislation.

#### 7.05 **Bats**

During the inspection, bat droppings were found on the water-deck in the spire indicating bats use the space. Any works to the building which may disturb a bat roost will require a Natural England licence, following a detailed survey of the bat population and the preparation of a mitigation strategy.

#### 7.06 **Deleterious materials**

The Control of Asbestos Regulations 2012 require that owners, employers and managers of non-domestic properties have an explicit duty to manage asbestos in premises and are required to assess risks and, where relevant, put in place a managed asbestos survey whether work on the building is planned or not. The object of the regulations is to enable those carrying out future works or inspections to assess the nature of relevant materials before work is carried out so that damage to asbestos-containing material can be minimised. In order to comply with legislation, we recommend that a survey is commissioned from a specialist consultant, if this has not already been carried out.

## 7.07 **Energy use**

In 2020, General Synod recognised that we are in a climate emergency and committed to an ambitious carbon reduction to achieve Net Zero by 2030; the PCC is encouraged to study the CofE guidance and use the checklist documents *A practical path to net zero carbon for our churches* appended to this report.

The inspecting architect can advise on suitable initial steps towards reducing the carbon use of the church building, including the commissioning of an *energy/sustainability audit*.

## 8.00 **RECOMMENDATIONS**

### 8.01 **Works required urgently**

- i) Fold down and fix as necessary the wind-lifted cover flashings at the junction of the tower and north aisle roofs, or consider fitting heavier-gauge lead.
- ii) Assess headstones/grave markers for stability/safety, carry out repairs, propping, stabilisation or other safety measures as necessary.

### 8.02 **Works required within twelve months**

- i) Carry out repairs to broken lancet windows in the west wall of the tower.
- ii) Carry out repairs to the western boundary walls of the church.
- iii) Carry out repairs to cracked lintels of ventilation opening in the boiler-house, replace rusting ventilation louvres with corrosion-resistant items.
- iv) Clean, treat and re-decorate rusting window ferramenta and door ironmongery.
- v) Review results of previous/ongoing structural monitoring carried out to areas of structural movement in the church, ascertain whether further monitoring/repairs are required.



- vi) Replace/repair draught seals to the frameless glazed door of the west & south porch doorways.
- vii) Consider proposals to eliminate the trip hazard formed by the single step inside the south transept doorway.
- viii) Carry out or commission fire risk assessment if this has not already been carried out; put in to action the recommendations of the fire risk assessment;
- ix) Arrange for boiler and flue to be checked/serviced on an annual basis.
- x) Arrange for lightning conductor installation to be inspected/tested; carry out urgent remedial works.
- xi) Arrange for electrical installation to be checked/tested/inspected following NICIEC format; carry out urgent recommendations of the report on the electrical installation.

#### **8.03 Works which may be required within five years**

- xii) Carry out programme of conservative repairs to decaying ashlar/dressed stonework.
- xiii) Overhaul/repair churchyard pathways where required.
- xiv) Commission energy/sustainability audit for the church, possibly including ancillary buildings. Implement recommendations of the report.
- xv) Review need for provision of stone guards to decorative glazing and renew where necessary.

**8.04 Works which may be desirable within five years or may be required beyond five years**

- i) Consider cleaning of sample area of water/salts-stained internal masonry, with a view to carrying out localised cleaning in the future.
- ii) Repair holes/gaps in internal masonry left following removal of previous services fixings.
- iii) Provide new suitably-designed podium to the lectern.
- iv) Consider removal / renewal of floor covering in the vestry.
- v) Review the need for/purpose of mechanical baffles to the belfry openings.

**NOTES**

- i) *The above is not a detailed specification and should not be used for obtaining prices from contractors or for guiding them in carrying out repair works.*
- ii) *All repair works should be specified and overseen by an architect/surveyor with experience of repairing ancient buildings.*
- iii) *All works of repair and alteration to the church (except de minimis works) should be the subject of an application for a faculty or archdeacon's authorisation following approval of the works by the DAC.*

## APPENDIX A

### **Photographs**





*Figure 1* General view of the church from the south-east



*Figure 2* General view of the church from the north-east





*Figure 3* General view of the west front and tower from the main entrance path



*Figure 4* General view of the east wall of the chancel



*Figure 5* View of the tower north side showing timber casing to the lightning conductor tape; presumably required for insurance purposes. The casing is unsightly and, at the very least, would benefit from redecoration



*Figure 6* Detailed view of the buttress to the north-east corner of the chancel, which shows ‘soft bed’ erosion and surface decay to the stonework, typical examples of decay to ashlarwork found throughout the church externally





*Figure 7* Example of where a string course has been cut through to allow fitting of rainwater goods, presumably carved out as part of the recent overhaul of the chancel roof carpentry and rainwater disposal system



*Figure 8* View of left-hand jamb of the south porch door opening showing advancing decay to the column bases; repairs to this type of defect should be carried out soon to stave off further decay



*Figure 9* View of the left-hand springing point to the external arch of the west door showing extensive decay to dressed and carved limestone ashlarwork, together with previous mortar repairs now succumbing to decay; these repairs were originally intended as sacrificial to protect the stonework to which they were applied). Renewal of mortar repairs and other conservative repairs to external stonework would be of considerable benefit to conserve the church fabric within the next quinquennium



*Figure 10* General view of the underside/interior of the spire as viewed from the deck at the base; the spire interior was dry at the time of inspection, however it was reported by the churchwarden that water ingress through the spire masonry remains an issue





*Figure 11* General view of the spire interior showing the main-deck and internal, electronically-operated baffles fitted to each of the tower belfry openings



*Figure 12* General view of the ringing chamber interior



*Figure 13* View of north lancet window in the west wall of the ringing chamber, currently in need of repair



*Figure 14* General view of the nave interior looking east

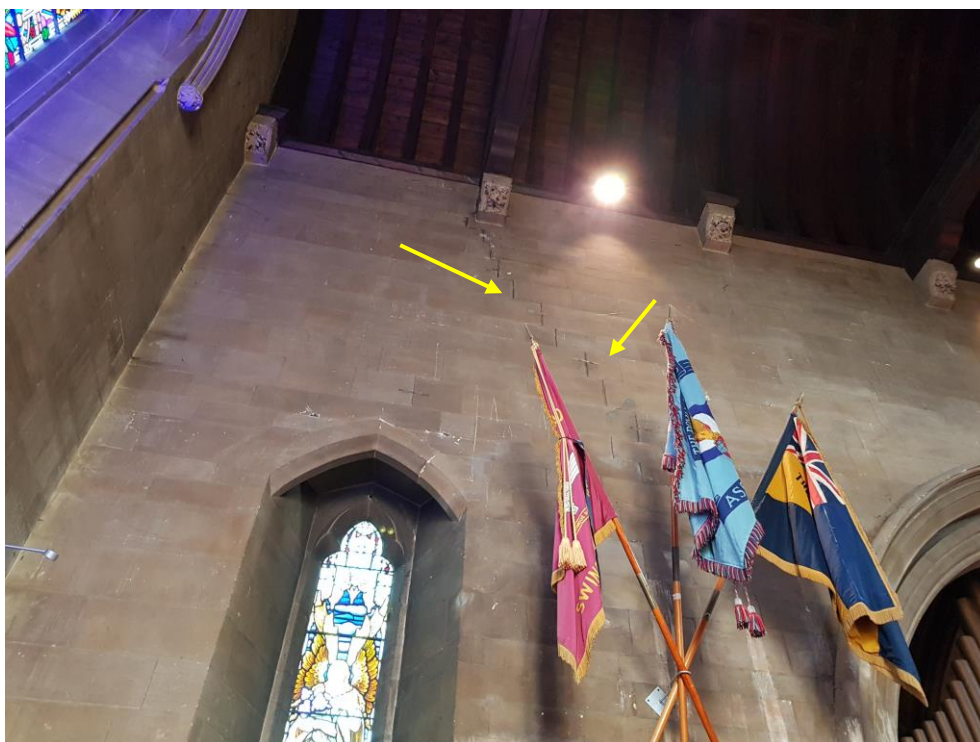




*Figure 15* General view at the west end of the north aisle interior showing staining to stonework from previous ingress through the roof, presumably prior to renewal of the roof coverings



*Figure 16* General view of the north wall of the north aisle showing salts related staining and ghost-marks where previously fitted pews have been removed



*Figure 17* 'Stepped' cracking to ashlar masonry at high level to the east wall of the north transept



*Figure 18* General view of the nave interior looking west





*Figure 19* General view of the church and the west boundary wall from the public highway; this boundary wall has a number of missing/loose stones and the pointing/bedding to the rubblework is generally in poor condition. Repairs to the wall would be prudent within the next quinquennium



*Figure 20* General view of north eastern section of the churchyard. This large area is well maintained and its pathways, trees, boundaries and grave markers should be kept under continual review to ensure the safety of the many visitors.

## APPENDIX B

### **Church of England net-zero checklist**

# A practical path to net zero carbon

## *A checklist for your church*

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### Welcome to the Net Zero Checklist.

**The Church of England's General Synod has recognised the climate emergency and called on all parts of the Church to become net zero carbon by 2030.**

This commitment requires us all to take action to reduce our carbon footprint. This will involve making material changes to our buildings and adopting new behaviours that both reduce our energy use and switch usage to renewable sources.

This checklist is a tool for reviewing the carbon emissions of your church building(s) and identifying actions that can be taken to help your church reduce its energy use and associated carbon emissions. It should be used alongside the "Practical path to net zero carbon for churches" guide which provides additional advice and information to help you in this journey.

The actions recommended have been developed based on the findings of a national church energy audit programme and with input from a range of professionals in the field. Depending on the size and complexity of your church, you may also wish to commission a specialist energy audit. Contact your Diocesan Environment Officer to find out more.

**To use this checklist tool**, complete the tick boxes in each section, before identifying which actions you will take as a church. The tool can be printed off or completed by clicking and typing into the pdf form.

We suggest you review progress towards implementing these actions at a PCC meeting.

If you require any support, please contact your Diocesan Environment Officer.

Please note: Many of the actions suggested in this checklist require a faculty. Please seek advice from your DAC before taking action, especially if the church interior is of historic, architectural or artistic interest; stabilising the environment for these interiors is important to minimise cycles of treatment, with their inherent carbon cost.



# Our collective approach to net zero is underpinned by six principles:



## Well maintained

Reduce heat loss by keeping on top of basic maintenance and ensuring the building is wind and watertight. Maintain the roof and gutters, to prevent water from entering the building and warm air escaping. Fix any broken window panes and make sure opening windows shut tightly.



## Buy renewable

Switch to 100% renewable electricity, for example through Parish Buying's energy basket, and 'green' gas. Whilst this does not reduce the energy you use, it means it comes from a cleaner source. It is the simplest thing you can do to cut your net carbon footprint.



## Waste less

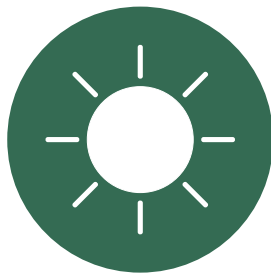
Waste less electricity, waste less gas/oil, tackle any food waste, reduce leaks and wasting water, and avoid unnecessary purchases. Read the "Practical Path to Net Zero" and "Energy Efficiency Guidance" for a wide range of ideas.



## Electric not gas/oil

Burning oil and gas to heat our churches is contributing greenhouse gasses to the atmosphere. We need to 'decarbonise' our heating.

Where possible, move to electric heating, using electricity that comes from 100% renewable sources. There are many options such as heat pumps, pew heaters, and infra-red panel heaters and chandeliers.



## Generate more

For some churches, there are opportunities to generate electricity onsite from solar PV panels, or very occasionally wind turbines or small-scale hydro.



## Offset the rest

Once you have made real reductions in your energy use, you can offset the small remaining amount through Climate Stewards or other reputable schemes to become 'net zero'. Churches with grounds can also consider if there is an area where they could let vegetation or a tree grow, as a natural way to capture carbon from the air.

# CHECKLIST

## Part A - Where do we start?

These are actions that nearly all churches can benefit from, even those primarily used only on a Sunday.

They are relatively easy and are a good place for churches to start, when trying to move towards 'net zero'.

		Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
<b>The building itself:</b>						
A1.	Maintain the roof and gutters, to prevent damp entering the building and warm air escaping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A2	Fix any broken window panes* and make sure opening windows shut tightly, to reduce heat loss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A3	Insulate around heating pipes to direct heat where you want it; this may allow other sources of heat to be reduced in this area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4	If draughts from doors are problematic, draught-proof the gaps or put up a door-curtain*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A5	Consider using rugs/floor-coverings (with breathable backings) and cushions on/around the pews/chairs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and lighting:</b>						
A6	Switch to 100% renewable electricity (for example through Parish Buying's energy basket) and 'green' gas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A7	Match heating settings better to usage, so you only run the heating when necessary*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A8.	If you have water-filled radiators, try turning off the heating 15 minutes before the service ends; for most churches this allows the heating system to continue to radiate residual warmth*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A9.	If you have radiators, add a glycol based 'anti-freeze' to your radiator system and review your frost setting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A10.	Replace lightbulbs with LEDs, where simple replacement is possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A11.	Replace floodlights with new LED units.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A12.	If you have internet connection, install a HIVE- or NEST-type heating controller, to better control heating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A13.	If your current appliances fail, then replace with A+++ appliances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>People and policies:</b>						
A14.	Complete the Energy Footprint Tool each year, as part of your Parish Return, and communicate the results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A15.	Create an Energy Champion who monitors bills and encourages people to turn things off when not needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A16.	Write an energy efficiency procurement policy; commit to renewable electricity and A+++ rated appliances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A17.	Consider moving PCC meetings elsewhere during cold months, rather than running the church heating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Offset the rest:						
A18.	For most low usage 'Sunday' churches, once they have taken steps like these, their remaining non-renewable energy use will be very small. For the majority, all they need to do now to be 'net zero' is offset the small remaining amount of energy through Climate Stewards or other reputable schemes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A19.	Also, think about your church grounds. Is there an area where you could let vegetation or a tree grow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*\* If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.*

## Part B - Where do we go next?

**These actions may cost more than the ones in Part A and some will require specialist advice and/or installers.**

**They are often good next steps for churches ready to take the next step towards 'net zero'.**

		Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
<b>The building itself:</b>						
B1.	If you have an uninsulated, easy-to-access roof void, consult with your Quinquennial Inspector (QI) about insulating the loft*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B2.	If you have problematic draughts from your door, and a door-curtain wouldn't work, consult with your QI about installing a glazed door within your porch, or even a draught-lobby*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B3.	Consider creating one or more smaller (separately heatable) spaces for smaller events.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B4.	Consider fabric wall-hangings or panels, with an air gap behind, as a barrier between people and cold walls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and lighting:</b>						
B5.	Learn how your building heats/cool and the link to comfort, by using data loggers (with good guidance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B6.	Improve your heating zones and controls, so you only warm the areas you are using.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B7.	Install TRVs on radiators in meeting rooms and offices, to allow you to control them individually.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B8.	Consider under-pew electric heaters and/or infra-red radiant panel heaters*, which keep people warm without trying to heat the whole church space. Radiant panels are especially good for specific spaces like chapels and transepts, which you might want warm when you don't need the whole church to be warm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B9.	If you have radiators, install a magnetic sediment 'sludge' filter to extend the life of the system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B10.	Consider thermal and/or motion sensors to automatically light the church when visitors come in, for security lights, and for kitchens and WCs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B11.	Install an energy-saving device such as Savawatt on your fridge or other commercial appliances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B12.	Get your energy supplier to install a smart meter, to better measure the energy you use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

People and policies:						
B13.	Vary service times with the seasons, so in winter you meet early afternoon when the building is warmer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*\* If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.*

## Part C - Getting to zero

These are bigger, more complex actions, which only churches with high energy use are likely to consider.

They could reduce energy use significantly, but require substantial work (which itself has a carbon cost) and have a longer payback.

*They all require professional advice, including input from your DAC.*

		Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
The building itself:						
C1.	Draught-proof windows*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C2.	If you have an open tower void, insulate or draught-proof the tower ceiling*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C3.	Double-glaze or secondary-glaze suitable windows in well-used areas such offices, vestries and halls*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C4.	Internally insulate walls in well-used areas such as offices, vestries and halls*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C5.	If you have pew platforms, consider insulating under the wooden platform with breathable materials*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.	Reinstate ceilings, and insulate above*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heating and lighting:						
C7.	Install a new LED lighting system, including all harder-to-reach lights, new fittings and controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.	Install solar PV, if you have an appropriate roof and use sufficient daytime electricity in the summer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*\* If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.*

## Part D - “Only if....”

These are actions which a church might undertake at specific times (such as when reordering is happening) or in very specific circumstances. They nearly all require professional advice, including input from your DAC.

		Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
<b>The building itself:</b>						
D1.	If you are reroofing anyway, then insulate the roof, if appropriate for your roof*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D2.	If you have an uninsulated wall with a cavity (typically built 1940 onwards), then insulate the cavity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D3.	If the building is regularly used and suitable, such as a church hall, consider appropriate external insulation or render, appropriate for the age and nature of the building*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and lighting:</b>						
D4.	If there's no alternative that does not run on fossil-fuels, then replace an old gas boiler or an oil boiler with a new efficient gas boiler.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D5.	If yours is a well-used church which you want to keep warm throughout the week, then consider an air or ground source heat pump. Ground source heat pumps are more expensive and invasive to install than air source heat pumps, but run more efficiently once installed, depending on ground conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D6.	If you are doing a major reordering or lifting the floor anyway, and yours is a very regularly used church, then consider under-floor heating. This can work well in combination with a heat pump (above).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Church grounds:</b>						
D7.	If you have car parking that is sufficiently used, EV charging points for electric cars can work out cost neutral or earn a small amount of income for the church. Note, they will increase the church's own energy use, but will support the uptake of electric cars. They could be good in combination with solar PV panels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.

# IDENTIFYING NEXT STEPS

Checklist completed by:

Date of the PCC meeting  
checklist results will be  
reported to?

Date completed:

**A) Actions we have marked as 'Already done' which have positively impacted our carbon footprint are:**

1	
2	
3	

**B) Priority Actions:**

*Identify the next step for those actions which you have marked as a priority.  
Who will be responsible for taking these forward. By when?*

Action	Who's responsible?	Target date for completion	Date of review by PCC
1			
2			
3			
4			

**C) Further Actions**

*Identify any actions which you have marked as 'explore further'.  
Who will be responsible for exploring these. By when?*

Action	Who's responsible?	Target date for completion	Date of review by PCC
1			
2			
3			
4			

*If more space is required for creating your 'Next steps action plan', please use additional sheets or your own document template.*

# Church of England guidance and support, to help you take action:

## Net zero carbon church suite of guidance

<https://www.churchofengland.org/resources/churchcare/net-zero-carbon-church>

## Case studies

<https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/towards-net-zero-carbon-case>

## Net Zero Webinars

<https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/webinars-getting-net-zero-carbon>

## To calculate your carbon footprint

- Energy Footprint Tool: <https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/energyfootprinting>
- 360 Carbon: <https://360carbon.org/>

## Sources of funding

<https://www.parishresources.org.uk/resources-for-treasurers/funding/>  
(Section 4 “National List of Charitable Grants”)

## Parish Buying (for switching to green electricity, energy audits, and LED lighting)

<https://www.parishbuying.org.uk/>

## Find your Diocesan Environment Officer

<https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/deo-map>

## Your DAC Secretary

Details available via your diocesan website. Many DACs have heating and sustainability advisors, who give free advice.

# External partners offering useful resources

## Historic England

<https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/>

## A Rocha (Eco Church)

<https://ecochurch.arocha.org.uk/>

## SPAB

<https://www.spab.org.uk/advice/knowledge-base>