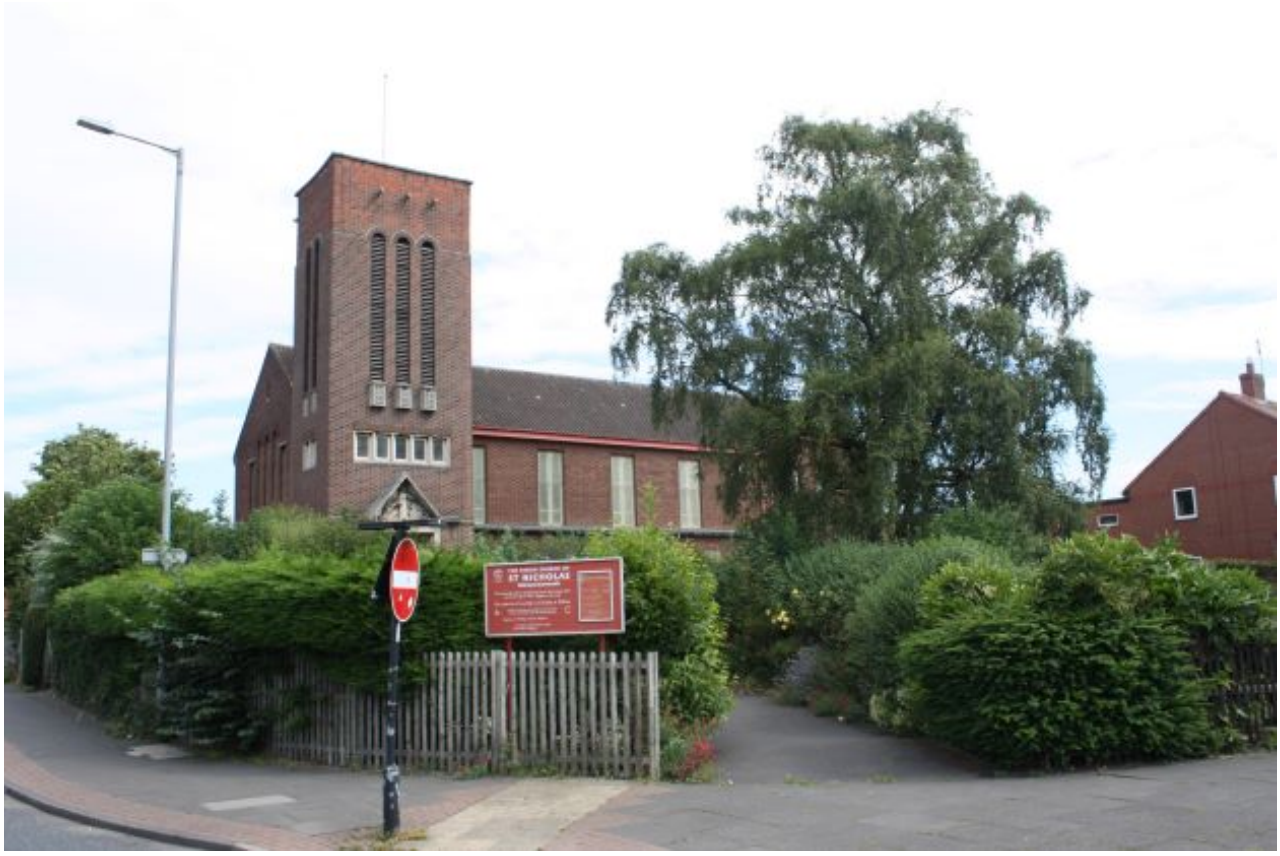
Quinquennial Inspection Report

Parish Church of St Nicholas
Bishopwearmouth, Sunderland
Diocese - Durham
Archdeaconry – Sunderland



Report prepared by:

Christopher J Blackburn BA BArch (Hons) RIBA SCA EASA
Director
Christopher J Blackburn RIBA Architect Ltd
Burnside House
Shaftoe Crescent
Hexham
Northumberland
NE46 3DS

Tel. No: (01434) 600454
E-Mail: chris@christopherblackburn-architect.co.uk

Date of inspection: 11 August 2021; weather – cloudy with sunny intervals

Date of report: 13 August 2021

Ref: 21026

Executive summary

The church is generally in good condition externally and internally and there are no major concerns. However, there are some maintenance and repair issues (many reported at the last inspection) which need attention.

Roof coverings and rainwater goods:
There is some missing bedding to the ridge tiles and re-pointing/re-bedding is needed. The pointing to the verge tiles is poor especially on the Chancel north slope and localised re-pointing is needed. There is a missing eaves tile on the east slope of the Chancel Apse which needs replacement to prevent water ingress.

Tower:
The fibre glass roof finish has deteriorated further since the 2016 inspection and has holes in it. It is recommended that fibreglass finish is removed, the upstand parapet walls are repointed on the roof side and the and the roof finish is replaced. The concrete support to the flagpole is spalling and repairs or replacement are recommended. One of the timber louvre blades is missing on the west wall and this should be replaced. There are open joints in the gable coping to the carved tympanum above the main entrance which need repointing. The carved panel is grimy in places and cleaning is recommended.

External walls:
The brickwork and pointing to the external walls is generally in good condition. The old vertical settlement cracks on the north wall of the Nave do not appear to have opened up since the 2016 report. There are open joints to the chimney stack which need raking out and repointing. There are open joints in the brickwork to the retaining wall adjacent to the boiler house steps. Raking out and re-pointing is needed. The copings to this wall are unsound and re-bedding is needed together with the replacement of the very rusty railings above.

Windows:
There is some distortion of the stained glass in one of the lower windows in the Nave south wall (Fawcett memorial) and it is recommended that a glazing conservator be engaged to give advice. The polycarbonate outer glazing is discoloured – ideally this should be replaced in UV-resistant polycarbonate.

Internal doors:
The glazed doors in the main entrance lobby and rear entrance lobby give cause for concern. The large panes to these doors appears to only be 3-4mm thick and the glass is not toughened or laminated. There is a danger of breakage and persons falling through the glass. Re-glazing in laminated or toughened safety glass with a minimum thickness of 6mm is strongly recommended.

Floors:
There is evidence of movement in the floor slab with horizontal cracks running north south. These correspond with vertical cracks on the north wall of the Nave. The cracks have not opened up since the 2016 report and it would seem that any settlement has now ceased. The 'Granwood' block flooring is showing its age and sanding and re-varnishing is recommended.

Internal wall and ceiling surfaces:
There are settlement cracks to the internal faces of the external walls of the Tower lower staircase. There are also cracks in the walls and ceiling of the Lady Chapel. Filling of cracks followed by redecoration is recommended. The walls in the Nave and Chancel would also benefit from re-decoration.

Kitchen, Vestry and Toilet provision:
The wall finish to the Sacristy, Choir Vestry and adjacent Toilet is poor with flaking paint. Removal of unsound paint and re-decoration is recommended. The church would benefit from an accessible toilet for the benefit of wheelchair and able-bodied users of the church alike. There is no kitchen in the church and consideration should be given to providing a small servery (possibly at the rear of the Nave) to serve hot drinks etc after services.

Boiler Room:
The floor is damp from water discharge from the weepholes in the retaining wall adjacent and a failure of the sump pump. A new pump has since been installed (in the toilet above). However, it is recommended that the drainage in the external area is reviewed to find a way of preventing further water discharges from the retaining wall entering the boiler room in storm conditions. (e.g. by increasing the capacity of the external gully).

Churchyard and environs:
The pavings between the two flights of steps at the main entrance are cracked and uneven. Replacing the flags is recommended for safety reasons. The dwarf brick walls either side of the steps need re-pointing and the copings re-bedding and re-pointing. The fencing to the boundaries would benefit from stain finish to preserve its longevity. Decoration of the metal gates to the play area by the Hall and the wrought iron railings by the main entrance is needed to protect them from further rusting.

Sustainability and path to Net Carbon Zero:
On 12 February 2020 General Synod recognised that we are in a climate emergency and committed to an ambitious carbon reduction target of Net Zero by 2030. It will be for the PCC to set its priorities for sustainability improvements, and I would encourage you to use the 'Practical Path to Net Zero Carbon' (PPNZC) in the Appendix of this Report to help set these.

Other matters are detailed in the full report.

Brief description and history

The church was consecrated on 13 September 1939 (10 days after war was declared on Germany). The church was designed by Donald McIntyre, of the Durham architectural practice Cordingley and McIntyre. Donald McIntyre was a well-respected regional architect who was architect to Durham Cathedral from 1935 – 1969. The church was constructed by local building contractor, Gordon Durham of Boldon at a cost of £9,000.

The entrance to the church is via the base of a tall square Tower on the south side of the Nave at the west end. The 5 bay Nave has narrow side aisles which act as corridors and a semi-circular Baptistry is located on the north side at the west end. The 3 bay Chancel has a blind apsidal east end and is flanked by a Lady Chapel on the south side and an Organ Chamber and Vestries (in 2 storey form) on the north side.

The external walls are constructed in red facing brickwork in Flemish bond. The Tower has reinforced concrete floors and roof. The Nave and Chancel roofs are finished in clay pantiles on timber purlins and joists supported by steel trusses. The Baptistry, Side Aisles, Lady Chapel and Vestry block have flat concrete roofs finished in roofing felt, though originally the roofs were finished in asphalt.

The south and north windows to the Nave comprise a single roundel and paired round-headed lancets within rectangular-headed openings; the Side Aisles have four small square windows; the west window comprises triple round headed lancets flanked by a single square-headed lancet with projecting hoods and low level square windows matching those in the Side Aisles. On the south side of the Chancel are three tall, narrow round headed windows. These windows repeat on the north side but are shorter in height. All the windows have brick lintels, stone dressings and metal frames. The original windows have small paned leaded lights while later replacements have stained glass. There are three stained glass windows in the Baptistry by Marion Grant. Forty seven other stained glass windows by Leonard Evetts form the largest collection of his work in England.

Internally the walls are plastered and painted throughout. The high ceilings in the Nave and Chancel are flat with a central arch which runs the entire length. These ceilings are constructed in plaster supported by a metal frame from the roof structure. The flat ceilings in the Lady Chapel and Baptistry are plastered and painted. The floor finish in the Nave, Baptistry and Chancel is of 'Granwood' blocks with carpet in the central aisle. The Chancel apse has stone pavings and carpet. The Lady Chapel is fully carpeted.

Listing grade

This church building is grade II listed. English Heritage Building ID: 1405866

Date of listing: 15 November 2011.

Reason for listing: (taken from Historic England list entry):

> *This church of 1939, by Durham Cathedral Architect Donald McIntyre, is designated at Grade II for the following principal reasons: * Design: it combines a stark modern design with Deco influences * Architect: it is an attractive inter-war church by the regionally respected architect Donald McIntyre * Artistic Embellishment: it houses the largest collection in the country of Leonard Evett's stained glass, and is the largest collection of C20 stained glass by a single artist anywhere in England * Intactness: it is externally and internally intact; the only significant alteration being the insertion of Leonard Evett's stained glass windows which more than compensate for the loss of the original window glass * Architectural embellishment: the decorative treatment of the interior is original and intact.*

Work carried out since the previous report

- New sump pump fitted 2020
- Sacristy toilet basin replaced 2019
- Lightning conduction test carried out 2019
- Lady Chapel spotlights replaced in LED
- Tower hatch replaced in GRP

Limitations of the report

The inspection was carried out from floor levels and from the Tower roof. The inspection and was purely visual. The Porch was locked and not inspected. The flat roofs over the Choir Vestry, North and South Aisle, Lady Chapel and Baptistry were not accessible and inspected. Concealed and inaccessible spaces (e.g. ceiling voids etc.) were not inspected. Carpets were not lifted and the floor beneath was not inspected. The manholes were not lifted and the below ground drainage was not inspected. The inspecting architect cannot state that these areas are free from defect.

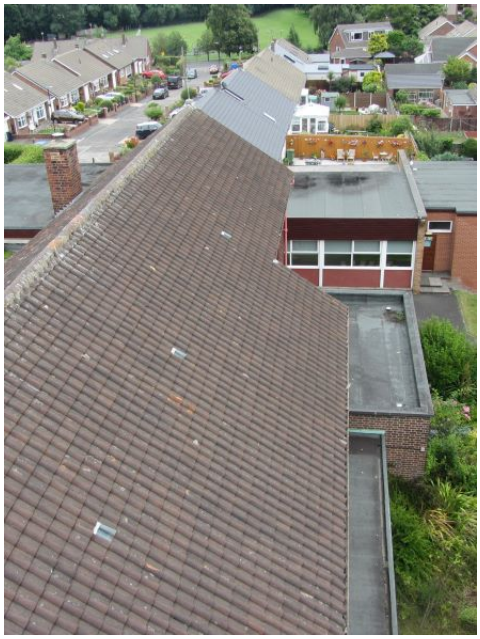
The mechanical and electrical systems were not tested and the inspector cannot state that they are free from defect. The PCC are advised to have the heating system checked by a heating engineer annually and the electrical systems tested every five years.

This is a summary report; it is not a specification for the execution of the work and must not be used as such. The professional adviser is willing to advise the PCC on implementing the recommendations and will, if so requested, prepare a specification, seek tenders and oversee the repairs. The PCC is advised to seek on-going advice from the professional adviser on problems with the building. Contact should be made with the insurance company to ensure that cover is adequate. The repairs recommended in the report (with the exception of some minor maintenance items) are subject to the faculty jurisdiction.

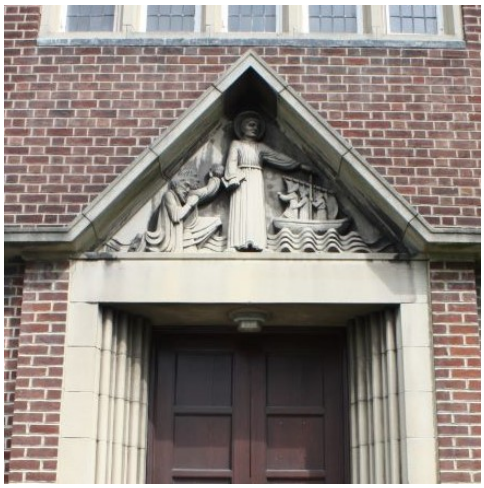
The Report

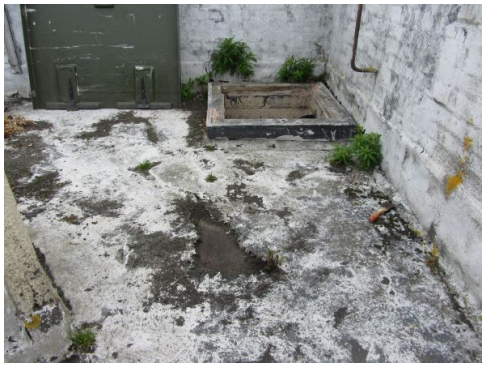
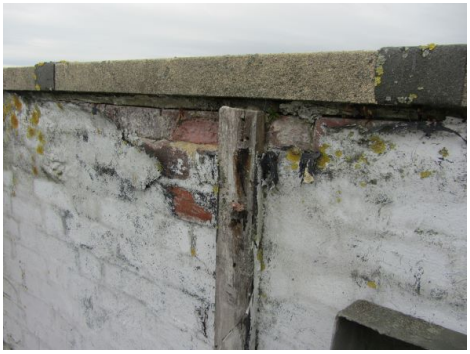
Category scale
A – Urgent, requiring immediate attention
B – Requires attention within 12 months
C - Requires attention within the next 18-24 months
D – Requires attention within the quinquennial period
E – A desirable improvement with no timescale
M – Routine maintenance (i.e. clearing leaves from a gutter). This can be done without professional advice or a faculty

1.0 Exterior:

1.1 Roof coverings	Comprise:- Nave and Chancel - Clay Roman pantiles. Baptistry, Side Aisles, Lady Chapel, Vestry block – mineral felt to concrete flat roofs.	
Condition  Nave & Chancel south slope	Nave and Chancel: Generally, the roof tiles are in fair condition. However, there is some missing bedding to some of the ridge tiles. Chancel verge: The verge pointing is in poor condition to the east gable of the Chancel (especially the north slope). Chancel apse: There is a gap between the gutter and the tiles on the east slope – an eaves tile appears to be missing. Flat roofs: Mineral felt - inspection limited to view from the Tower (South Aisle and Lady Chapel only). Some ponding to Lady Chapel roof. *NB The Baptistry, North Aisle and Vestry block flat roofs were not inspected and the writer cannot state they are free from defect.* Tower/Nave valley gutters: These are blocked with vegetation and debris.	
Repair needs	Nave/ Chancel ridge: Localised re-bedding of ridge tiles. Chancel verge: Removal of unsound pointing; repointing. Chancel apse: Replace missing eaves tile. Lady Chapel roof: Monitor ponding. Tower/Nave valley gutter: Clear vegetation and debris.	B B B D B

1.2 Rainwater goods and disposal systems	Comprise:- Cast iron half round gutters and circular downpipes discharging into surface water drains via gullies.	
Condition	The gutters to the Chancel north slope are blocked with vegetation. The gutters to the Nave south slope are blocked with lumps of concrete bedding which have come off the ridge. The upper section of the downpipe to the North Aisle (near the Baptistry return wall) is cracked. Some of the gullies are blocked, others have missing gratings. The rainwater goods were redecorated in 2014 and decoration remains in fair condition apart from some minor flaking on the Nave south gutter. The Nave and Chancel eaves fascia and soffits are in fair condition apart from some flaking paint to the Chancel eaves fascia on the south slope.	
Repair needs	Clearing Chancel north slope gutters of vegetation. Clearing Nave gutters of concrete debris. Replacement of cracked upper section of downpipe to North Aisle (adjacent Baptistry return wall). Clearing gullies and replacement of missing gulley gratings. Making good decoration to Nave gutter (south slope). Redecoration of Chancel eaves fascia south side.	B B C M C C

1.3 Tower		
Condition  Tympanum over main entrance	<u>External walls:</u> The facing brickwork to the upper section of the Tower is understood to have been re-pointed in circa 1998. The lower section of the Tower was re-pointed in 2014. The brickwork and pointing is generally in good condition. The decorative stone tympanum (bearing a carving of St Nicholas aiding sailors in distress above the main entrance) is showing signs of weathering and grime. (See photo). Consideration could be given to its cleaning. The copings to the tympanum have open joints. The timber louvres are in fair condition though there is a missing blade on the west elevation. <u>Roof:</u> <u>Parapets:</u> concrete coping stone with felted joints; upstand walls finished with fibreglass to inner faces. The fibreglass is breaking down. Externally a small shrub is growing out of the north parapet.	

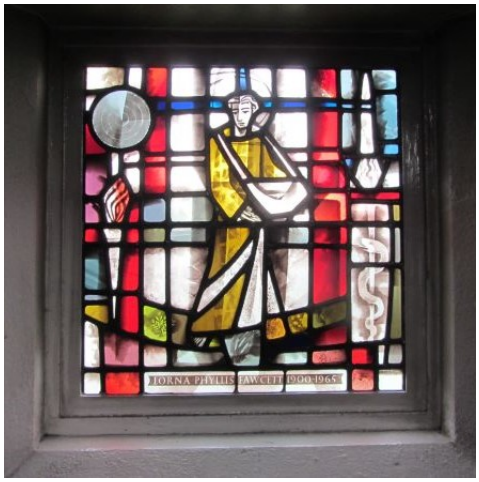
 Defective fibreglass roof finish	Roof finish: the fibreglass finish is breaking down in a few places leaving the mastic asphalt below exposed (see photo opposite). Flagpole: the sides of the concrete support are spalling. Roof hatch: has been replaced and is in good condition. Internal metal ladders: in fair condition. Hopper and downpipe: There is some vegetation growing adjacent to the hopper though the hopper itself appears to be clear. Past leaks associated with the hopper and downpipe are evident.	
Repair needs  Defective fibreglass to parapet	Tympanum: repointing open joints in coping; consider specialist cleaning of carved frontal. Louvres: replacing missing louvre blade to west elevation. Parapets: removal of fibreglass followed by raking out and repointing of inner faces of parapet walls; removal of shrub from outer face. Roof finish: removal of fibreglass finish to roof. Replacing with an alternative roof finish or upgrading the original mastic asphalt. Flagpole: repair or replace concrete support to flagpole. Hopper and downpipe: removal of vegetation; checking hopper & downpipe joints for leaks.	C E C B B B B B

1.4 Parapets and upstand walls, finials, crosses and chimneys		
Condition / repair needs	Parapets to Vestry block flat roof: Concrete copings generally fair. Upstand walls to Lady Chapel: Finished with roofing felt (on roof side). Apex cross to Chancel gable: Copper cross and stone base in fair condition. Chimney from boiler room: Some open joints. Repointing is needed.	C

1.5 External walling		
Condition / repair needs	The brickwork to the Nave, Side Aisles, Chancel, and Lady Chapel has all been repointed in the last 20 years. Silicone sealant has been applied to the brickwork of the east wall of the Lady Chapel from the parapet to some 800mm below. The silicone is breaking down and would best be removed as it is trapping moisture in the wall.	

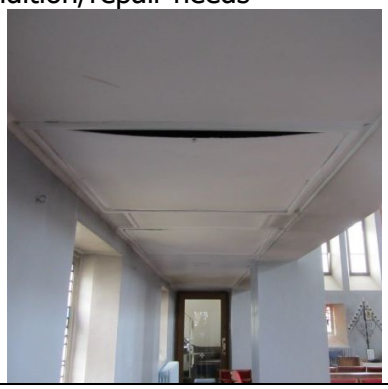
	There are 5No vertical cracks on the north wall of the Nave. These are not recent and have been pointed up with silicone. 4No of the cracks have been fitted with 'tell-tales' to monitor the movement. The cracks do not appear to have opened up since the last inspection and settlement appears to have ceased. There are some open joints in places including:- i) the stone string course on the Nave west gable ii) Nave north circular window stone surround iii) North Aisle at low level iv) Stone door reveals to main entrance Re-pointing of these open joints is needed to prevent water ingress. The brickwork to the retaining wall adjacent the boiler house steps is in poor condition along with the copings and railings. The brickwork here needs to be raked out and repointed. The coping stones are cracked and damaged and would best be replaced. (See 3.2 for comments on railings).	C C

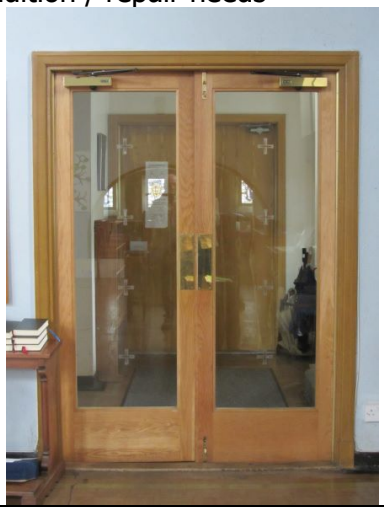
1.6 External doors		
Condition / repair needs	<u>Main entrance doors:</u> In fair decorative condition but some splits apparent in five of the panels. These should be monitored. <u>Secondary entrance doors:</u> In fair decorative and structural condition. There are splits in some of the panels which should be monitored. <u>Vestry staircase door:</u> In fair decorative and structural condition. However, the edge of the door has been planed and needs redecorating to prevent moisture ingress and swelling.	B

1.7 Windows:		
Condition / repair needs  	The polycarbonate over-glazing to the many of the windows is looking discoloured due to UV light and dirt. Ideally these would best be replaced in new UV-resistant polycarbonate. There is some rusting of the metal framed casement windows in the Tower first stage. Removal of rust and localised redecoration is recommended. A glass hopper wing to one of the Choir Vestry staircase windows is cracked. Replacement is recommended. Generally the stained glass to the windows is in good condition with the exception of one of the low level windows (Fawcett memorial – see photo) in the South Aisle where there is some bowing. It is recommended that a glazing conservator be engaged to give advice.	E D D C

2.0 Interior:

2.1 Presence of bats and other protected species		
Comments	There is no evidence of bats within the roof void over the Nave and Chancel or within the Tower.	

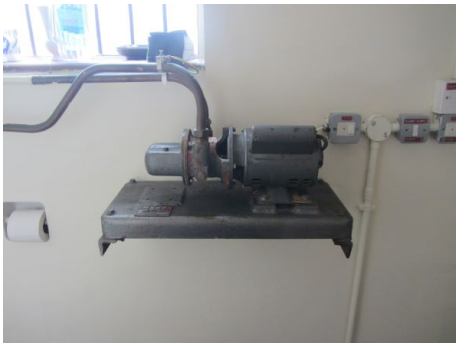
2.2 Roof structures, ceilings	*Roof voids were not inspected, and the inspecting architect cannot state that they are free of defect.*	
Condition/repair needs 	Nave and Chancel: The textured plastered ceilings to the Nave and Chancel are in good condition. Side Aisle (south): The ceiling access panels are very thin and bowing. (See photo). Replacement with thicker panels is recommended. Lady Chapel: There is a central crack running north – south. The ceiling decoration is in poor condition. Filling the cracks and redecoration is recommended.	D D

2.3 Partitions, screens, panelling, doors		
Condition / repair needs 	Partition between upper landing and organ chamber: In fair condition. Glazed screens and glazed doors to Lady Chapel: In fair condition along with the decorative metalwork. Internal doors: • Front entrance Lobby and rear entrance lobby: the door glazing appears to be only 4mm thick and given the size of the panes, there is a danger of breakage and injury. It is strongly recommended that the doors are re-glazed with toughened or laminated glass min 6mm thick for safety reasons. (See photo opposite). • Sacristy: veneered flush doors in fair condition. • Choir Vestry, organ chamber and toilet: veneered flush doors in fair condition.	B

2.4 Floors, platforms, pews	*NB carpets were not lifted – the inspector cannot sate that the floors beneath are free of defect.*	
Condition / repair needs	Entrance Lobby, Nave, Side Aisles, Vestry corridor: There are several cracks running north - south in the 'Granwood' block flooring. These are not recent and are indicative of settlements in the floor and external walls. The cracks have not opened up further since the 2016 inspection and settlement appears to have ceased. The surface of the 'Granwood' flooring is poor and sanding and re-varnishing should be considered.	E

	Chancel: Carpet and polished stone paving in good condition. Lady Chapel: Carpeting in good condition. Pews: The Nave pews and Chancel Choir stalls are in good condition.	

2.5 Internal wall finishes		
Condition/ repair needs	Nave and Chancel: There are some cracks in the plaster which should be monitored. The walls would benefit from redecoration. Baptistry: There is some cracking of the plaster due to settlement. It is recommended that the cracks are filled prior to re-decoration. Lady Chapel: There are a number of cracks on the walls on the south and southwest corner due to localised settlement. Filling the cracks and redecoration is needed.	D D D

2.6 Vestry, kitchen and toilet		
Condition/ repair needs  Boiler sump pump located in toilet	Sacristy and adjacent Toilet: Evidence of blistering paint to external walls – consider improving ventilation and redecoration. Some staining to carpet tiles. WC pan and new hand-basin in toilet in good condition. The sump pump takes up space and could be hazardous. (See photo). Consideration should be given to re-siting it. Choir Vestry and adjacent Toilet: There is flaking paint and cracks in the plaster to walls and some flaking paint to ceilings. Removal of unsound paint, plaster repairs and redecoration is recommended. The vestry carpet is worn and should ideally be replaced. Kitchen: There is no kitchen or servery in the church. Consideration should be given to installing a servery (possibly at the rear of the Nave) to serve hot drinks etc after services.	D E D E E

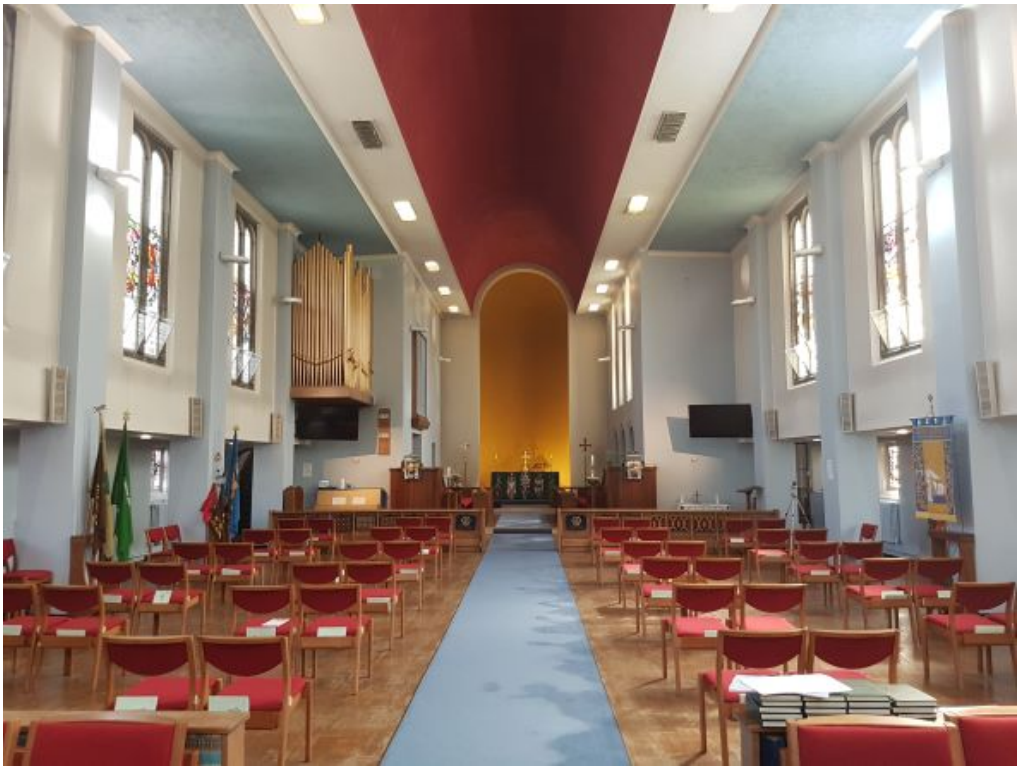
2.7 Disabled access and provision		
Comments	The approach to the main entrance is via several steps. A ramped approach is desirable but likely to be expensive to construct due to the change in level on the south side of the church. Level access into the church from the car park is available for wheelchair users and the infirm.	

	There is no accessible toilet in the church. Consideration should be given to its provision (possibly adjacent to the Sacristy).	E

2.8 Fittings, fixtures, furniture and moveable articles		
Condition / repair needs	• Stone font in Baptistry. • Oak frontal chest in North Aisle. • 2No oak cupboards to rear of Nave. • Oak table to rear of Nave. • Upholstered beech framed chairs in Nave (no pews). • Oak table to front of Nave. • Oak bishops chair to front of Nave. • 2No matching pine pulpits in Chancel. • 2No oak priests' desks in Chancel. • Oak choir stalls in Chancel. • Pine altar in Lady Chapel. • Upholstered beech framed chairs in Lady Chapel. • Fixed bookcase at rear of Nave. • Fixed frontal with kneelers at front of Nave. All in good condition. No repair needs apparent.	

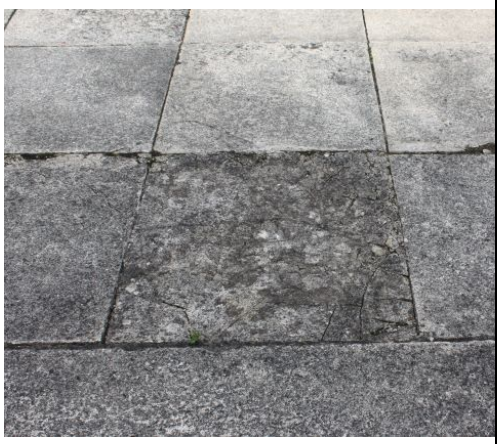
2.9 Organ		
Condition	The organ was built by the Vincent Organ Company Ltd of Sunderland. The organ is tuned periodically (on an 'as and when needed' basis).	

2.10 Boiler Room		
Condition	<u>Ceiling</u>: Soffit of concrete floor over – in fair condition. <u>Walls</u>: Decoration to walls is patchy mainly due to rising damp. <u>Floor</u>: The floors are damp from water leaks via the weepholes in the retaining wall by the steps. This caused flooding when the sum pump failed. A new pump has been installed (in the toilet above). A review of the drainage in the external area is recommended to find a way of preventing water getting into the boiler room (perhaps by increasing the capacity of the external gulley to cope with storm conditions). <u>Door</u>: Metal faced flush timber door. In fair condition. <u>Window</u>: The metal slats are badly rusted and should be replaced. See 4.1 and 4.2 for comments on boiler, heating system and gas supply.	C C

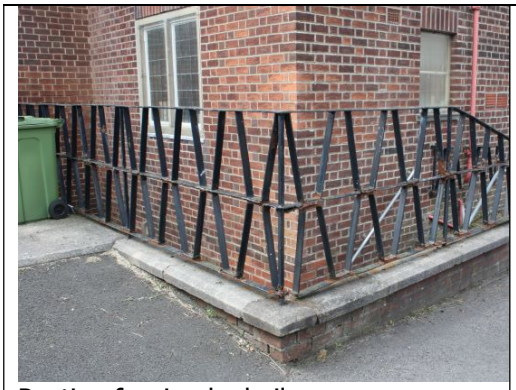


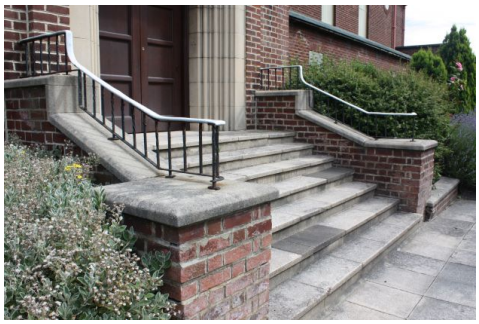
View from rear of Nave

3.0 Churchyard and environs:

3.1 Paths, drives and access		
Condition / repair needs 	Paths: There are some minor cracks in the tarmac pavings on the south side of the church which should be monitored. 20% of the concrete paving flags (between the two flights of steps) by the main entrance are cracked. The pavings are also uneven and pose a tripping hazard. It is recommended that the paving is re-laid incorporating new flags for safety reasons. Steps: Some of the mortar has fallen out of the joints to the risers and raking out and re-pointing is recommended. Drive: The tarmac drive and car park are in good condition. Access: see para 2.7 for comments.	B B

3.2 Gates and fences		
Condition	Fencing on east and south boundary (adjacent Vicarage): 1.2m high post and rail fence – in fair condition Fencing to west and south boundaries: 1.5m high vertical paling fence – in fair condition.	

 Rusting fencing by boiler room	<u>Side gate on west boundary</u>: Gate posts split and decayed at top and bottom. <u>Fencing to north of access drive & car park</u>: 1.2m high open boarded fence – in fair condition. <u>Metal gates to play area</u>: Wrought iron – evidence of rust. <u>Metal railings to dwarf walls by main entrance</u>: Wrought iron – evidence of rust. <u>Metal fencing on boiler room retaining wall</u>: The railings are in poor condition with considerable rusting.	
Repair needs	Staining of the timber fences and gate every 5 years is recommended to prolong their life. The gate posts require monitoring for further deterioration and subsequent replacement. It is recommended that the rust is wire brushed off the metal gates and main entrance railings followed by re-decoration. Replacement of the railings by the boiler room steps is recommended.	D D C C

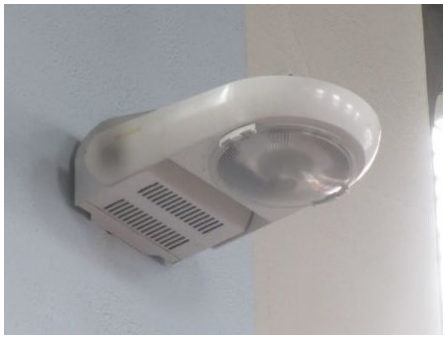
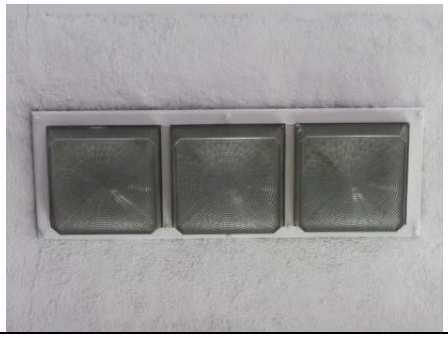
3.3 Churchyard		
Condition/ maintenance needs  Steps and dwarf walls at entrance	<u>Shrubs and flowers</u>: The shrub beds adjacent the entrance path and the flower bed by the South Aisle are well-stocked, attractive and well maintained. Pruning is recommended especially on the public footpath side where it encroaches. <u>Grassed areas</u>: These are cut regularly in the growing season. <u>Hedging</u>: The hedging is healthy and well maintained. <u>Dwarf walls by main entrance</u>: There are a number of open joints in the brickwork and the concrete copings which require re-pointing. Some of the copings are loose and require re-bedding. The dwarf wall on the east side of the entrance is damaged and localised reconstruction is needed. (See photo opposite).	M C

3.4 Trees	A mature silver birch tree is located on the south side of the church but is far enough away from the building not to pose any problems of roots or overhanging branches currently. A younger silver birch tree on the west boundary has shallow roots and is close to a drain run. It is recommended that the drain is checked for encroaching roots which could cause blockages. A flowering cherry and other smaller trees are located on the west boundary. These appear in healthy condition but pruning is recommended.	M M

4.0 Services, installations and other matters:

4.1 Heating installation		
Comments	The heating system comprises a gas fired boiler (installed in 2008) serving radiators in the Side Aisles and elsewhere. Electric plinth heaters are fitted on the north and south walls of the Chancel. The convector heater by the communion rail is redundant. The Lady Chapel is heated independently by wall mounted electric convector heaters. Given the age of the boiler the PCC should plan for its replacement. This should be one with renewable energy source (i.e. ground or air source heat pump). The heating system is serviced annually and is understood to be in good working order and providing adequate thermal comfort levels.	E

4.2 Gas supply		
Comments	A new gas supply and meter were installed in 2011. It is recommended that the gas supply and pipework is checked every year for leaks etc.	

4.3 Electrical installation		
Comments  	A new distribution board was fitted in 2012 and there was some partial rewiring (mainly in the plant room area). New light fittings were installed circa 1996 and comprise wall mounted light fittings in the Nave and Chancel (upper photo); wall mounted spotlights in the Apse; ceiling mounted light fittings and wall mounted spotlights in the Lady Chapel. The original mercury tungsten filament light fittings in the high ceiling of the Nave and Chancel are used occasionally for special services (lower photo). Consideration should be replacing the luminaires in the wall lights and central lights with an LED type which be more energy efficient. 2No plasma screens have been fitted at the front of the Nave. It is recommended that a full electrical test is carried out every five years and portable electrical appliances are tested every year.	E

4.4 Water supply		
Comments	There is a cold-water supply to the boiler house which feeds the boiler and a header tank in the first-floor toilet. The header tank serves the toilets and wash basins. An electric instantaneous hot water unit is located in the Sacristy toilet.	

4.5 Sound system		
Comments	A sound reinforcement system is installed in the Nave with 4No speakers linked to fixed microphones in the pulpits and portable clip microphones. An induction loop system is installed in the Nave. The sound systems were not tested but are understood to be in good working order.	

4.6 Fire protection		
Comments	Portable fire-fighting appliances are located in the Plant Room (dry powder); Cupboard near entrance Lobby (CO2); Stair corridor (CO2 and foam). These are serviced annually.	

4.7 Lightning protection		
Comments	A lightning conduction system is fitted to the Tower. It is recommended that the system is tested every five years.	

4.8 Insulation and air leakage		
Comments	Insulation: Roof insulation – there is no insulation in the roof or above the ceiling to the Nave and Chancel. Insulation to the flat roofs of the Vestry block, Aisles, Baptistry and Lady Chapel is likely to be nominal. Wall insulation – the external walls are of solid brickwork with no cavity and will have relatively high heat losses. Windows – the single glazed leaded windows will have high heat losses. Floors - the original solid floors are unlikely will not have any insulation. Air leakage: The external doors have draught stripping. The Nave is protected from draughts via the lobby doors.	
Recommendations	Insulation Consideration should be given to fitting roof insulation above the ceilings in the Nave and Chancel. Consideration should be given to installing a sheet of insulation below the roof finish when the Baptistry, Aisle and Lady Chapel roof finishes next need replacing.	E

4.9 Sustainability		
	A quinquennial inspection is a good opportunity for a PCC to reflect on the sustainability of the building and its use. This may include adapting the building to allow greater community use, considering how to increase resilience in the face of predicted changes to the climate, as well as increasing energy efficiency and considering other environmental issues. See Appendix for a Practical Path to Net Zero Carbon.	D

5.0 Summary of repairs

Category scale

A – Urgent, requiring immediate attention

B – Requires attention within 12 months

C - Requires attention within the next 18-24 months

D – Requires attention within the quinquennial period

E – A desirable improvement with no timescale

M – Routine maintenance. This can be done without professional advice or a faculty

Category	Comment	Budget Costs (excl. VAT & fees)
A	None	-
B	Localised re-bedding of Nave and Chancel ridge tiles (1.1)	£2,000
B	Repointing of Chancel east gable verge tiles (1.1)	
B	Replace missing eaves tile to Chancel apse (1.1)	
B	Clear vegetation from Tower/Nave valley gutter (1.1)	
B	Clear Chancel north slope gutters of vegetation (1.2)	
B	Clear Nave gutters of concrete debris (1.2)	
B	Remove fibreglass, rake out & repoint Tower parapet inner faces (1.3)	£7,500 - £10,000
B	Remove fibreglass to Tower roof and replace in alternative finish (1.3)	
B	Remove shrub from Tower north parapet outer face (1.3)	£500
B	Remove vegetation from Tower hopper; check downpipe collars for leaks (1.3)	
B	Repair/replace concrete base to flagpole (1.3)	£150
B	Decorate edge of Vestry block external door (1.6)	DIY
B	Upgrading glass to entrance lobby doors for safety reasons (2.3)	£2,500
B	Replace cracked paving and repoint joints to steps by main entrance (3.1)	£1,500
C	Replace cracked upper section of downpipe to North Aisle (1.2)	£300
C	Make good decoration to Nave south gutter (1.2)	£400
C	Redecorate Chancel south eaves fascia (1.2)	
C	Repoint open joints in coping to Tower tympanum (1.3)	£300
C	Replace missing louvre blade to Tower west opening (1.3)	£750
C	Rake out and repoint open joints to boiler room chimney (1.4)	£1,000
C	Repoint open joints in external walling (1.5)	£750
C	Repoint open retaining wall by Boiler Room steps (1.5)	£1,000
C	Obtain glazing conservator's advice on bowing Fawcett Memorial window (1.7)	-
C	Review drainage by Boiler Room external staircase (2.10)	-
C	Replace rusty slats to Boiler Room window (2.10)	£500
C	Remove rust and redecorate gates & railings to play area (3.2)	£500
C	Replace badly rusted railings by Boiler Room steps (3.2)	£5,000
C	Repoint copings and dwarf walls by main entrance (3.3)	£300
D	Monitor ponding to Lady Chapel roof (1.1)	-
D	Remove rust and decorate Tower Storeroom window (1.7)	£250
D	Replace cracked glass to hopper vents wings on Vestry block stair window (1.7)	£250
D	Replace thin and bowing ceiling access panels to Aisles (2.2)	£3,000
D	Fill cracks to Lady Chapel ceiling and redecorate (2.2)	£750
D	Redecoration of walls to Nave, Chancel, Baptistry & Lady Chapel (2.5)	£15,000
D	Plaster repair & redecoration of walls to Sacristy, Choir Vestry and Toilets (2.6)	£5,000
D	Staining of timber fencing and gate; monitor split & decayed gate posts (3.2)	£750
D	Remove rust and redecorate railings by main entrance (3.2)	£400
D	Make plan for 'practical path to net zero carbon' (4.9 and Appendix)	-
E	Consider cleaning carved panel tympanum on south face of Tower (1.3)	£2,500
E	Consider replacing discoloured polycarbonate to windows in UV grade (1.7)	£20,000
E	Sanding and re-varnishing of 'Granwood' block flooring (2.4)	£5,000
E	Consider replacing worn Choir Vestry carpet (2.6)	£300
E	Consider installing a servery to rear of Nave (2.6)	£7,500
E	Consider re-siting sump pump from Sacristy toilet (2.6)	?
E	Consider installing a wheelchair accessible toilet (2.7)	£10,000
E	Consider replacing aged boiler (4.1)	£10,000
E	Consider replacing Nave/ Chancel light fittings with LED type (4.3)	?
E	Consider installing roof insulation when flat roofs are next re-roofed (4.8)	?
M	Clear gullies and replace missing gratings (1.2)	-
M	Prune shrubs and trees at end of season (3.3)	-
M	Check drainage on west side of church for encroaching tree roots (3.4)	-

6.0 Maintenance recommendations and general advice

Accessibility and disabled people
The Equality Act 2010 bans unfair treatment and helps achieve equal opportunities in the workplace and wider society. Duties under the Act are placed on 'service providers', which include churches and the service they provide for worship and wider activities either in the church or a church hall. The PCC should ensure that they have understood their responsibilities under the Equality Act 2010. Further details and guidance are available at http://www.churchcare.co.uk/images/Accessibility_Sept2017

Asbestos
A suitable and sufficient assessment should be made as to whether asbestos is or is liable to be present in the premises. The assessment has not been covered by this report and it is the duty of the PCC to ensure that this has been or is carried out.

Bats and other protected species
The PCC should be aware of its responsibilities where protected species are present in a church. Guidance can be found on http://www.churchcare.co.uk/churches/guidance-advice/looking-after-your-church/bats

Electrical Installation
Any electrical installation should be tested at least every five years in accordance with the recommendations of the Church Buildings Council. The inspection and testing should be carried out in accordance with IEE Regulations, latest edition, and an inspection certificate obtained in every case. The certificate should be kept with the church logbook.

Fire extinguishers
Obtain advice from Local Fire Prevention Officer on the correct type and location. Enter into a contract for annual maintenance with the supplier.

Heating Installation
A proper examination and test should be made of the heating system by a qualified engineer each summer before the heating season begins, and the report kept with the Church Logbook.

Health and Safety
Overall responsibility for the health and safety of the church and churchyard lies with the Incumbent and PCC. This report may identify areas of risk as part of the inspection, but this does not equate to a thorough and complete risk assessment by the PCC of the building and churchyard.

Insurances
Ensure adequate cover is maintained for the full cost of re-building and replacement of contents and ensure this is index linked to cover inflation.

Lightning Protection
Any lightning conductor should be tested at least every five years in accordance with the current British Standard by a competent engineer. The record of the test results and conditions should be kept with the Church Logbook.

Maintenance and restoration of church bells
This guidance is given by the Church Buildings Council to all parochial church councils. From 1st January 2016, it will be possible to carry out a range of works to bells without a faculty: see List A and List B in Schedule 1 to the Faculty Jurisdiction Rules 2015. Carrying out works in List A or List B is subject to conditions set out in the list. It is a condition of carrying out any works to bells under List A or List B that regard is had to this guidance. Additionally, in the case of List B works, the approval of the archdeacon must be obtained before they are carried out and the archdeacon may apply additional conditions. Further information can be found on http://www.churchcare.co.uk/images/Guidance_Notes/Bells.pdf

Organ
Enter into an annual contract for maintenance and tuning.

Painting rainwater goods
Paint cast iron rainwater goods every five years min. Scrape and wire brush to remove rust. Apply primer/undercoat. Topcoat with 2 coats gloss paint. Use bituminous paint on inside of gutters.

Pointing of masonry
Must be done under the direction of the Church Architect who will advise on the correct mortar mix and method of application. (NB the wrong mortar mix can do more harm than good).

Plasterwork
Loose plaster is a problem in many churches and can be dangerous if large sections fall off the walls or plaster and lath ceilings. Loose sections are not always visible and sometimes can only be identified by tapping. It is advisable to check suspect areas from ladders where possible.

Rainwater disposal systems
Rainwater goods include the gutters and downpipes which are key to the survival of a church building. Together with a watertight roof, they ensure that rainwater is directed safely away from the building. As water is the greatest cause of damage to buildings, it is vital to keep these elements well maintained. Clean out gutters and gullies twice per year – late spring, late – autumn after leaves have fallen. See Church Care website under http://www.churchcare.co.uk/images/Guidance_Notes/Rainwater.pdf

Roof coverings
A roof keeps out water and prevents the deterioration of the building and its contents. It needs to be carefully maintained in order to retain its weatherproof properties. Check frequently and repair as necessary. See Church Care website under http://www.churchcare.co.uk/images/Roofs_August_2016.pdf

Sustainable buildings
A quinquennial inspection is a good opportunity for a PCC to reflect on the sustainability of the building and its use. This may include adapting the building to allow greater community use, considering how to increase resilience in the face of predicted changes to the climate, as well as increasing energy efficiency and considering other environmental issues. See Appendix for a Practical Path to Net Carbon Zero

APPENDIX

A practical path to "net zero carbon" for our churches

These recommendations aim to help churches reduce their energy use and associated carbon emissions. They are based on the findings of our church energy audit programme and input from of a range of professionals in the field.

NOTE: Many of the suggestions below require faculty; please seek input early on. If the church interior is of historic, artistic, architectural or artistic interest, seek professional & DAC advice first, before making changes; stabilising the environment for these interiors is important to minimise cycles of treatment, with their inherent carbon cost.

A. Where do we start?	These are actions that nearly all churches can benefit from, even low occupancy churches used only on a Sunday. They are relatively easy, with relatively fast pay back. They are a good place for churches to start, when trying to move towards 'net zero'.

The building itself:

A1. Maintain the roof and gutters, to prevent damp entering the building and warm air escaping.
A2. Fix any broken window panes* and make sure opening windows shut tightly, to reduce heat loss.
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.
A4. If draughts from doors are problematic, draught-proof the gaps* or put up a door-curtain*.
A5. Consider using rugs/floor-coverings (with breathable backings) and cushions on/around the pews/chairs.

Heating and lighting:

A6. Switch to 100% renewable electricity, for example through Parish Buying's energy basket, and "green" gas.
A7. Match heating settings better to usage, so you only run the heating when necessary*.
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*.
A9. If you have radiators, add a glycol based "anti-freeze" to your radiator system and review your frost setting.
A10. Replace lightbulbs with LEDs, where simple replacement is possible.
A11. Replace floodlights with new LED units.
A12. If you have internet connection, install a HIVE- or NEST-type heating controller, to better control heating.
A13. If your current appliances fail, then replace with A+++ appliances.

People and policies:

A14. Complete the Energy Footprint Tool each year, as part of your Parish Return, & communicate the results.
A15. Create an Energy Champion who monitors bills and encourages people to turn things off when not needed.
A16. Write an energy efficiency procurement policy; commit to renewable electricity & A+++ rated appliances.
A17. Consider moving PCC meetings elsewhere during cold months, rather than running the church heating.

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.
A19. Also, think about your church grounds. Is there an area where you could let vegetation or a tree grow?

B. Where do we go next?	These are actions with a reasonably fast pay back for a church with medium energy usage, used a few times a week. Perhaps half of churches should consider them. Most actions cost more than the ones above, and/or require more time and thought. Some require some specialist advice and/or installers. They are often good next steps for those churches with the time and resources to move on further towards 'net zero'.

The building itself:

B1. If you have an uninsulated, easy-to-access roof void, consult with your QI about insulating the loft*.
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*.
B3. Consider creating one or more smaller (separately heatable) spaces for smaller events.
B4. Consider fabric wall-hangings or panels, with an air gap behind, as a barrier between people and cold walls.

Heating and lighting:

B5. Learn how your building heats/cools and the link to comfort, by using data loggers (with good guidance).
B6. Improve your heating zones and controls, so you only warm the areas you are using.
B7. Install TRVs on radiators in meeting rooms & offices, to allow you to control them individually.