

Installation of telecommunications equipment

Introduction

1. This guidance relates to the installation of transmission equipment in, or more probably on, churches, most likely in relation to the use of mobile phones and for broadband access in areas where reception is currently poor. While these two technologies are distinct the process is similar.
2. Helping communities to gain access to modern communications, fit for purpose in the 21st century, is clearly in accordance with the Renewal & Reform aim to become a growing Church for all people and for all places.
3. When churches are connected all kinds of things then become possible which otherwise are not, ranging from access for visitors and other community users to monitoring your church's alarm or CCTV, being able to receive credit card payments and even controlling heating, lighting or sound. Some of these uses are set out in the diagram – and all of them help to make your church more sustainable.
4. However getting this connectivity can be difficult, especially in some rural areas. Churches can play an important role as a hub for a telecommunications company providing connectivity to the surrounding community.
5. The main distinction between mobile and broadband infrastructure comes from the approach to the church. Mobile phone operators actively look for churches as strategic sites to improve their existing coverage so may approach a PCC, usually through an agent, with an offer of funds for siting their equipment on a church tower. Broadband installations can be more proactively pursued by the PCC where improved connectivity is sought by the church itself or where the church approaches or is approached by a company or community group wishing to enable better local community access.
6. Congregations planning to install closed systems for their own use within the building will find the guidance useful in terms of gaining permission to achieve their aims but their operating system will be managed on the same basis as a private system accessible only to those permitted to use a particular password.
7. There are important considerations relating to the historical importance and fabric of the church, which is why, as any proposal to house a phone mast or wireless broadband transmitter progresses beyond the 'in principle' discussion stage by the PCC, the church architect becomes increasingly central to the process. This is the good practice also encouraged by Historic England in their [guidance](#) on this topic.



On receiving an approach from a mobile phone operator or internet service provider

1. It will be important for your PCC not to sign up unwittingly and prematurely to any arrangement. As soon as an approach is received, the parish should obtain the agreement in writing of the telecom company to pay all costs incurred in developing the project, whether or not an agreement is ultimately reached. These costs might include various professional fees and the cost of, for instance, a bat survey.
2. As soon as an approach is received, it is also important to share this news locally. The civil parish council should be advised and, where one exists, the village website should carry the news.
3. The possibility of using the church in this way should be discussed early on by your PCC. There may be those who do not see this as an appropriate use of their church. However, if they fear that, via the transmitter on the church, pornographic or other unsuitable material may be viewed by local broadband scheme subscribers, the Court of Arches, which is the appeals court for Canterbury Province DACs, has concluded that this is not, in itself, a sound reason for refusing a faculty request. Similarly previous judgements have shown that Chancellors will not refuse a faculty on the grounds of danger to health, if equipment complies with international standards, unless there is compelling expert evidence to the contrary.
4. You should also undertake some desk research into the company which has approached you. You may choose to ask the DAC Secretary or if you have one, the diocesan parish development adviser, whether the company is active elsewhere in the diocese.

1. The Process

The process begins with the parish obtaining specialist advice and should include consultations with various agencies (see section 6) and the public, during which a number of questions will be considered, such as:

- What impact will the various components have on the fabric of the church, its appearance, its contents and its churchyard and on existing service arrangements etc, such as lightning protection and power supply?
- What additional work or provision will be necessary as a result and how will it be carried out?
- Given that a third party will gain certain rights over the church, for example, access (and has certain legal obligations), what new “sharing” arrangements must be agreed to balance the needs of the different groups using the building and what particular safety implications are there when a technically specialised workspace such as the church tower is being shared?

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- How can the local community be involved and its reasonable concerns be considered and addressed?

From an operator's point of view, it is necessary to obtain the PCC's informed approval to the provisional specifications of work etc and Licence terms, the necessary planning consent and, with the church, the DAC's certificate of recommendation and the Chancellor's faculty permission.

You may wish to use the services of a suitably experienced, professional adviser (e.g. a surveyor) to negotiate the income that you will receive for allowing the transmission equipment to be placed on or in your church. The diocese may also know what rates have recently been agreed locally for similar arrangements.

The incumbent is usually one of the parties who sign the contract. If there is currently a vacancy, ask the DAC secretary's advice about who should sign instead.

Your church architect is central to dealing with on-site issues in three senses. First, s/he will have a formal role to play in deciding whether a statement of significance is required. Second, under the faculty, certain decisions (e.g. whether the equipment should be painted) will have been left specifically for your architect to determine and what is concluded in this context *must* be followed. Third, s/he will also be helpful if any unforeseen issues occur while the project is developing on site; for instance, does the organ need protecting while the installation work is undertaken.

2. Permissions

A faculty will be required for the installation and any associated works. In some dioceses the Diocesan Chancellor may have a system for covering a number of similar installations at the same time and it is worth exploring the current situation with the diocesan staff.

At the outset that it makes sense to consult with the local office of Historic England and the conservation officer at your district council, by sharing with them specifications and drawings, provided by the telecoms company, of what is proposed.

In some cases (e.g. for an external equipment building) formal planning permission may need to be sought. Check with your DAC Secretary or, if you have one, your parish development advisor whether they already have links with the district council in relation to telecommunication installations.

A Licence Agreement setting out the agreed terms and conditions of the operator's occupation will also be necessary. The Diocesan Registrar is the officer who advises the diocese on all matters of law. Often they will be able to supply a 'model' agreement with an internet service provider, and the registry may also be able to provide a 'model' licence agreement for where a mobile phone mast is to be installed. Any such agreement *must not be signed* until the faculty has been granted.

A more detailed description of documents and process for formal application is covered below in section 6.

3. Obtaining Professional Advice

In brokering a deal with a telecommunications company, the parish will need the expertise of a number of professional advisers including their architect, a surveyor, a solicitor and perhaps a structural engineer and a lightning consultant. In certain circumstances, archaeological or specialist conservation advice may also be required. The parish should also draw on relevant expertise available in the DAC, for example, the Diocesan Archaeological Adviser and the Bells Consultant to the DAC, and in cases where local authority permission is required, the Conservation Officers.

The parish should always:

- Consult its **architect/surveyor**, in particular for advice as to whether the church tower (or wherever the equipment is to be installed) will take the weight of the equipment. If there is any doubt, a **structural engineer** must be consulted, and, where bells are involved, a **chartered engineer** with specialised knowledge and experience of bells and bell installations (advice is available from the Central Council of Bell Ringers).
- Instruct a **surveyor** to negotiate the financial terms for the agreement. The surveyor should be one who is experienced in dealing with this type of matter. It is possible that either the DAC or Diocesan Registry have names of individuals or companies who are competent in this area of work. The surveyor will be required to certify that the financial terms agreed, subject to contract and faculty, represent the current open market value of the licence sought by the operator.

Operators or their agents will often make an indicative rental offer as part of their approach. It is useful to ensure at this early stage that this offer represents the current open market value bearing in mind that an installation within a church can often be preferable for an operator when compared to many secular locations due often to its elevated position or height having the potential to replicate multiple secular installations from a single site. It is possible that the mobile telecommunications company (or their agent) will offer an alternative to a simple annual rental (for example a series of 'lump sum' payments). The PCC has an obligation to satisfy both itself and the Diocesan Chancellor, as part of any subsequent application for Grant of Faculty, that any financial terms it accepts offer the 'best value' for the parish over the period of the agreement. The surveyor should therefore also be asked to verify that the provisions for reviews of the offered rental (for example the method and frequency of such reviews) are reasonable.

- Instruct a **solicitor** to negotiate the form of the Licence Agreement with the operator. A copy of a model draft Licence Agreement may be provided by the Diocesan Registrar. This will need to be adapted to meet the particular circumstances of the church.
- If the church has a lightning conductor or similar protection, seek the advice of a **specialist lightning conductor consultant** to ensure that the proposed installation does not adversely affect the existing protection. If there is no existing protection, the advice of such a consultant must be obtained, to assess whether the proposed

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installation increases the lightning hazard. The church insurers require this information.

The costs of these professional consultations should be borne by the operator or their agent and their agreement to meet these costs should be secured before any negotiations or detailed site meetings begin.

Where the church is a listed building or situated in a conservation area, **Historic England** and any relevant **national amenity society** should be consulted. Your DAC Secretary will be able to advise.

The national bodies with a statutory interest in the church's built heritage are:

- Cathedral and Church Buildings Division
- The National Amenity Societies: Ancient Monuments Society, the Council for British Archaeology, the Georgian Group, the Society for the Protection of Ancient Buildings, the Twentieth Century Society and the Victorian Society.
- Historic England

All are willing to offer advice and welcome early contact.

4. Issues to consider

Equipment

Each church building is different and any particular scheme must be tailored to the site. Broadly speaking, a typical installation would consist of one or more antennae or aerials fixed by brackets inside or outside the building; an equipment room, either inside the building or in a cabin nearby; cabling between the various elements and the main power supply. There will also be a cable, or in some cases a microwave dish, to connect the antennae to the wider telecommunications infrastructure. In addition there may need to be safety ladders, emergency lighting etc installed to meet routine maintenance and health and safety requirements.

It is possible, particularly in built-up areas, that only smaller transmitters (microcells or picocells) will be required to "fill in" areas of weak coverage. These are generally much less intrusive (and less powerful) than macrocell installations but many of the same principles apply.

Ingoing Works

There will be a certain amount of work associated with the installation of the equipment (particularly if other repair work takes place at the same time). This should be treated like any other intervention in the church building. So far as possible, it should be reversible, in line with best conservation practice. This is especially relevant where significant work, such as the installation of a protective floor (which also raises structural issues) is to be undertaken. Where work is to be undertaken in the bell tower it should be recognised that the bells and the tower combine together as a musical instrument belonging to the church and performed upon by church workers.

No changes must be carried out in the tower, fixtures or fittings that would adversely affect the internal or external acoustics of the bell/tower combination. In some cases, it may be necessary to remove or replace existing fittings e.g. substituting louvres in materials which offer less interference to radio waves. How will this work be carried out and what will

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happen to the originals during the period the installation is in the church? Will, for example, the operator arrange and pay for secure storage on site? Also, how will other fixtures and fittings (e.g. the organ, monuments or windows) be protected during the work from dust or damage? How will the equipment be moved into position - is it small enough to be transported up narrow stairs, or will it need to be hoisted up and through a larger opening (ie removed bell louvres)? There are implications if craneage is used - weights on burial vaults etc.

The operator should be clear that permission will be given only for that work specified in the details accompanying the faculty petition and which will form part of the faculty. Any work should be supervised by the parish architect. Unless the Chancellor makes provision in the faculty, any changes will need to receive the same approvals as the initial proposals.

Impact on the fabric of the church

Antennae could be sited:

- Externally on tower walls, with the antenna painted to blend in with the existing fabric
- As a replacement flagpole
- Internally behind the belfry louvres. This can require the replacement of existing louvres with louvres made from an RF (Radio Frequency) transparent material such as GRP 'fibreglass' (slate louvres do not allow the signal to pass through).

The siting of any antennae should be carefully considered in terms of the effect that it may have on the historic and architectural character of the church, and should be sited as unobtrusively as possible. Although the antennae themselves are becoming smaller as technology is developing, the installation of the associated equipment may pose more of a problem, due to its size and weight.

Associated equipment will need to be sited:

- In a spare room within the church
- In an external equipment cabin
- On a false floor within the tower

The exact location of the equipment will need to be assessed in terms of aesthetics, intrusion into historic fabric, impact on bells and bell ringers, impact on clocks, the need for access and maintenance, noise impact if fans are needed to cool the installation and health and safety. Loss of, or opening through historic material should be minimised. The church's architect should be consulted at an early stage about the impact of the installation upon the building fabric, in particular to advise as to whether the building's structure would be capable of taking the weight of the equipment, in consultation with a structural engineer if necessary. The process for applying for a telecommunications installation, and which bodies need to be consulted at what stage is covered in more detail under section 6.

Access

Telecommunications operators will require access to their equipment outside normal working hours and at other times when the church is not normally open and possibly at very short notice. The parish should make sure that the Licence Agreement clearly specifies who may or may not hold keys, and allows the agreement to be terminated if such security

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provisions are breached. Some churches have arrangements with the bell ringers over access and security – how will these need to be amended to share the responsibility with the operator? Conversely, the location of the equipment (to which access will be controlled) or its emissions must not place restrictions on access to any bells, the clock or the church roof for inspection. In some cases access routes e.g. spiral staircases may need to be repaired to ensure Health and Safety compliant access.

Health & Safety

This Guidance Note does not attempt to provide any expert advice on the health and safety issues associated with mobile phones and their associated infrastructure.

The operators have responsibilities under health and safety legislation, in particular the Health & Safety at Work Act 1974, the Management of Health & Safety at Work Regulations 1999, the Workplace (Health Safety and Welfare) Regulations 1992 and the Working at Height Regulations 2006.

This means providing, for example, safe means of access e.g. adequate lighting and stairways. Is any equipment to be installed in a confined space? If so, is it adequately ventilated? Although the operators have primary responsibility for their employees, the church too has some liability, not least moral, for the safety of those working on site.

Health and Safety becomes a two-way responsibility. Do you know of anything that might affect the health or safety of any person coming onto the site (e.g. overhead or buried electrical cables, asbestos cladding or unstable masonry)? The cost of providing safe means of access, including handrails, safety lines etc should be a matter for the operators, but installation must also be carried out in a way sympathetic to the nature and architectural/historic importance of the building. The parish architect should supervise this and any other ongoing works.

Lightning Protection

Expert advice is needed to ensure that any increased risk of a lightning strike is reduced to an acceptable point. Will the installation increase the risk of a lightning strike? If so, what additional protection will be required?

Electrical installations

The new supply should ideally be separate from the existing church electrical installation. The operators may insist on a 'clean' supply, which should be installed at their cost. At a minimum the supply to the proposed installation should be separately metered. If a separate supply needs to be run can this be achieved without damage or unnecessary disturbance to any archaeological remains, monuments or the roots of established trees in the churchyard? Will any walls or hedges be affected?

Insurance

The church insurer should be contacted at an early stage to check the parish's position and what steps it needs to take to safeguard this. The Licence agreement should include provision that the operator should maintain insurance cover of not less than £10 million against liability for damages to the church (fabric, fittings, furniture and furnishings) and Public and Third Party Liability in respect of personal injury (including death) and damage to

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property arising out of the installation of or carrying out of any repairs or other works to and the operation of the equipment. It is possible that the company might cease to trade or be taken over by another. Therefore the details of the providers' insurers, policy number and limit of indemnity applying for Public Liability insurance should be recorded and checked each year with the insurance provider.

Bells and turret clocks

When housing telecommunications equipment in church towers, there are issues that need to be taken into consideration if bells are present, and the effect that such installations can have on both the bells and ringers in close proximity to any equipment. Issues identified by the Central Council of Church Bell Ringers (CCCBR) for consideration are:

- To ensure that the bell ringers meet with the PCC at an early stage to discuss any proposed installation.
- The quality of the sound, both internally and externally can be altered by the introduction of new equipment and sound passages (created by new cable routes) into the belfry, acoustic chamber, or ringing chamber. Expert opinion should be sought on any effects on the acoustics.
- Telecommunications engineers and bell ringers may need to share the same spaces. Adequate training should be given to all of those who need to enter a belfry, to warn of the risks of both the bells, and any telecommunications equipment (which will have an exclusion zone around it, which should be marked).
- Nothing should be installed that would prevent the maintenance or future restoration of the bells.
- Similar issues may arise if the church has a clock, if access is also needed for winding or maintenance.

Many churches have turret clocks, frequently sharing the same space as the bells. As a result similar issues arise. For example, will special arrangements be needed regarding access to the mechanism for maintenance and winding?

Wildlife and trees

Around 60% of medieval churches are home to bats, but they can be found in buildings of any age. Bats are protected under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats etc) Regulations 1994 which make it illegal to kill, injure, capture or disturb them, and to obstruct access to or to damage or destroy their roosts. Bats do not usually roost in a tower with bells in use, finding it too noisy. Bats may use buildings for different purposes at different times of year; for instance, some may appear in Spring to establish a maternity roost, which will disperse in late Summer. The telecoms company, at their expense, should work with the Bats Conservation Trust to undertake a survey, if necessary, to ascertain the relevance and importance of your church tower to bats. Swifts return at the very end of April or in early May, and will have departed by mid-August at the very latest. Whether they use your church as a nesting site will be known. Swift numbers have almost halved nationally in the last twenty years; their wellbeing, as a species, is under threat.

Churchyards are an important national asset. In addition to burials and associated monuments, they may contain some the oldest established trees in the parish. Laying of cables should therefore be handled sensitively taking care to avoid damage to root systems.

Archaeology

Many churches occupy sites which have been in human occupation for centuries. Most are also surrounded by burials. The church building itself and its contents, such as its walling or a mediaeval bell frame, may also be of archaeological importance.

The proposals therefore need to be assessed for their likely impact on the church and its site, from steeple or tower top to churchyard wall, and it may be that a professional archaeological evaluation will be required. This may be a non-intrusive survey or involve, say, trial digging to assess what lies underground. The information obtained can then be used to refine the proposals.

5.Licence

The parish will need independent advice as to the Licence Agreement. The Diocesan Registrar will usually have a copy of a Model Licence.

It is preferable for the Registrar not to become involved in the drafting of the licence or negotiation of terms with the operators as they are part of the process of gaining permission.

Key provisions (all of which are covered in the Model Licence) will include:

- Length of term. This should balance the operator's need to recover its capital costs with the parish's need for a review after a certain period. A normal length of term might be 10 or 20 years with a break clause after 5 years. The Diocesan Chancellor may determine that another specific period is more applicable to an individual parish. Adequate provisions should also be made should the operator cease to trade or wish to assign their obligations.
- Licence fee. Provision for rent review. The PCC should take independent advice as to the proper fee from a surveyor and agree both the method and frequency of any rent reviews.
- Access to the church by the operators. Excepting emergencies, this should be kept to the minimum necessary and should be by arrangement with the parish. It should not interfere, for example, with worship.
- Monitoring. Radio wave emissions should be monitored and reported to the parish on a regular basis.
- Insurance of the new installation and cover for the parish. The operator should maintain Third Party and Public Liability insurance cover for damage to persons or property caused during repairs, the operating of the system or its removal. In addition the parish's insurers must also be informed in case any alterations to existing cover will be needed.
- Provisions for termination of the agreement in the case of insolvency proceedings against the operator.
- Assignment consents to be obtained before any transfer of rights to another operator or agent working for the operator(s).
- Use. The operator to covenant to use best endeavours to ensure that the installation is not used for any unlawful or immoral purposes which might offend or distress local residents or church members.

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- Redundant equipment. Provision for this to be removed and the building to be reinstated following the end of the licence term.
- Disputes. Agreement of the process to follow if there are any disputes between the church and the operator or their agent.

The Diocesan Registrar should also be consulted before signing a Licence Agreement.

6. Detailed Formal Application Procedure

It is likely that these rounds of consultation, discussion and negotiation will take several months. However, if followed, they should greatly speed the faculty and planning processes and, in particular reduce the likelihood of concerns resulting in formal objections to the granting of faculty.

The PCC will wish to weigh all of the information received, including the results of the public consultation, and make a final, formal, decision as to whether it wishes to proceed. Once the PCC have agreed to proceed, applications should be made for the requisite secular and ecclesiastical consents. The information required will vary depending on the scale and type of installation, your DAC can advise you.

1. Planning Permission

The local planning authority will advise as to the consents necessary where planning permission is required (in most cases it will not be needed). It is the operator's responsibility to make the planning application but clearly the details presented for planning consent must be identical to those for which the faculty to be sought and should have been approved by the PCC. It is advisable for planning permission to be sought in parallel with the application to the DAC.

If planning consents are obtained for a scheme details of which are subsequently altered, the planning department (and Diocesan Registrar, in the first instance) must be notified of the changes. It is also clearly sensible to ensure that, so far as possible, the local authority and DAC are of one mind.

Similarly, there should be no changes to the specification for the installation or associated ingoing work for which the Chancellor has issued a faculty without further consultation (subject to any alternative arrangements permissible under faculty legislation which the Chancellor may wish to put in place). This must be made clear to the operator and any contractor(s) undertaking work on their behalf. It should be noted that there exist extensive powers to order restitution etc. under church legislation.

2. DAC

The formal application to the DAC for its recommendation (DACs generally welcome early informal consultations about proposals) in respect of the proposed installation should be accompanied by the following:

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To be provided by the operator:

a) A copy of the undertaking to indemnify the PCC in respect of its reasonable professional, Diocesan Registry and court costs (this is included in the Model Preliminary Agreement).

b) Plans, drawings and specifications of the proposed work, to include the following:

- The size, type, shape and colour of the aerials/antennae
- The location of all equipment
- All cable runs (whether inside or outside the church)
- Any work affecting the church fabric, including drilling and cutting through the church walls;
- Any work affecting the church fixtures or fittings
- Any work affecting the churchyard or its contents.

These drawings should be of a quality that enables the parish, DAC, local authority and ultimately the Diocesan Chancellor to consider the arrangements and make recommendations as appropriate.

c) A copy of the proposed Licence Agreement.

d) DAC application form and Questionnaires fully completed and signed by the Petitioners, i.e. the Incumbent/Priest in Charge and Churchwardens, and also the operator.

e) Copy of any planning permission required (if already obtained).

To be provided by the PCC:

a) A certified PCC resolution approving the installation and the proposed financial terms, and instructing the named church architect/surveyor to supervise/inspect the work during the course of the installation.

b) A letter from the church architect/surveyor confirming that s/he has inspected and approves the plans, drawings and specifications and that s/he is willing to supervise/inspect the work during the course of the installation.

c) A copy of the lightning conductor consultant's report, indicating that the proposed installation will not adversely affect the existing protection (if any) and also indicating whether the proposed installation increases the lightning hazard of the particular building.

d) A copy of the independent structural engineer's report as to the structural implications of the installation e.g. whether the church tower will adequately support the weight and burden of any aerials and other equipment to be installed.

e) A copy of the church insurer's letter confirming that the church insurance will not be affected by the installation and operation of the equipment.

f) A copy of any other specialists' reports, e.g. the report from the Bells Consultant.

g) Surveyor's certificate that the financial terms represent the current open market value of the permissions to be licensed in respect of the installation and operation of

the equipment.

The DAC will issue a Notification of Advice:

- recommending
- stating no objection to; or
- not recommending the proposals

It may also include for the Chancellor's attention certain provisos or conditions, require amendments to the specification or further consultations (e.g. with the Church Buildings Council). With the Notification of Advice, the parish should also receive the faculty petition and public notices and stamped copies of the papers supporting the application.

The role of the Chancellor

A copy of the public notice should be displayed for 28 days and a copy of the drawings, specifications etc. should be available in the church. Once the notice period (during which time people may advise the Chancellor of any objections to the proposals) has expired, the notice is completed and sent to the Registrar.

Once both a PCC resolution and DAC Notification of Advice are in hand, a formal faculty petition may be submitted. This must be accompanied by all the above details, together with the completed faculty petition.

The Chancellor will then consider the drawings, specification etc. for the aerial installation and the Licence terms. Whether or not there are objections, s/he may wish to seek further advice or offer others an opportunity to comment. The Chancellor may also decide to determine the matter in open court. Having determined the case, s/he may grant a faculty, with or without conditions, or refuse to do so.

Following the granting of a Faculty

The Diocesan Registrar will notify the parish and operator of the Chancellor's decision. It is at this point that the Licence between the appropriate authority in the parish (usually the Incumbent and Churchwardens, but other arrangements, for example a Deed of Covenant, may apply where the benefice is vacant) and operator may be signed.

Contract phase

It is likely that the operator will wish to complete the installation as soon as possible, perhaps within a matter of weeks. The work should be supervised by the parish architect/surveyor. The operator should agree the start and finish dates, access and other arrangements with the parish. The architect/surveyor will wish to ensure that the work is carried out correctly with regard to the specification of work and faculty/planning permission, and that progress matches the agreed timetable

The completed works should be approved by the architect/surveyor, following which the operator should provide the parish and Diocesan Registrar with "as-built" drawings of the precise installation. The certificate of completion should also be completed and returned to the Archdeacon and Registrar.