Palmerstown Church

Conservation Report

Prepared for South Dublin County Council

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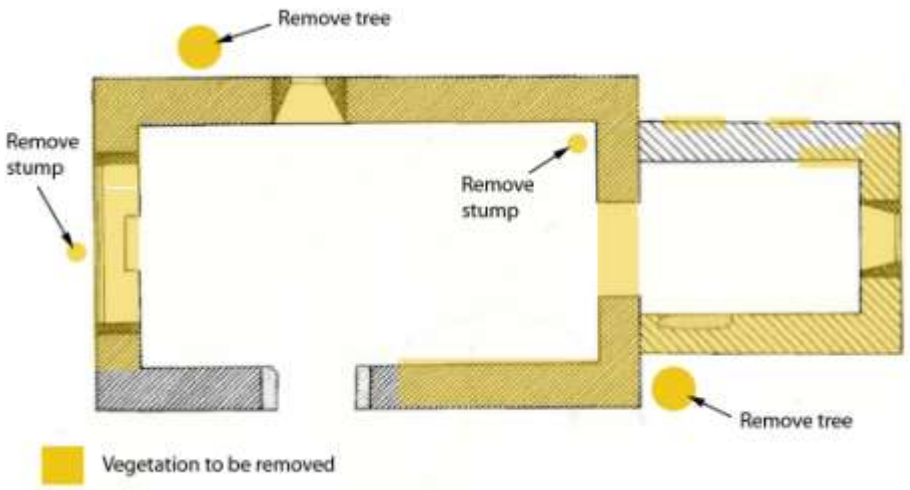
Executive Summary

This conservation report was undertaken at the request of South Dublin County Council. The purpose of the report is to assess the condition and vulnerabilities of the church and graveyard at Palmerstown, and provide recommendations for conservation. The site consists of two associated monuments which are listed on the Record of Monuments and Places (RMP) the stone church *DU017-026001 Church*; and the graveyard - *DU017-026002 Graveyard*.

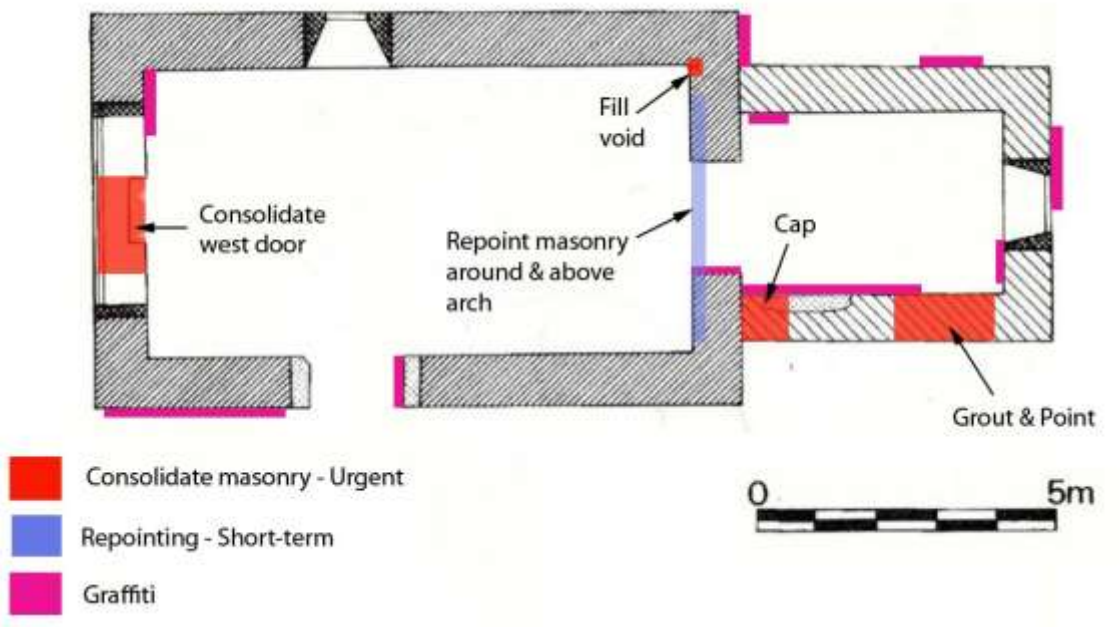
Vulnerabilities: The key vulnerabilities of the church are the stability of the masonry, graffiti, fires & dumping, and management of vegetation. A number of tasks are recommended to safeguard the church and graveyard without detracting from its archaeological and architectural significance. These comprise treatment of the vegetation; masonry repairs, memorial repairs, and raising awareness of the site. Please note that all recommendations are subject to approval by the Department of Arts, Heritage and the Gaeltacht.

Conservation – Recommended Actions



TASK 1 - Vegetation at & within the church building: Palmerstown Church currently supports vegetation known to cause damage to archaeological monuments. **The growth of vegetation is disrupting the masonry and de-stabilising the walltops.** None of these plants appear to provide bioprotection, and there is no advantage to the building in allowing these plant species to remain. The ivy in particular, if allowed to remain, will necessitate costly masonry repairs in the medium-term if current levels of vegetation are allowed to remain. **It is recommended that all vegetation be removed from the church building** carefully using hand tools only. It is likely that removal of vegetation may expose areas of masonry requiring repair and consequently **it is recommended that vegetation removal be carried out under the guidance of a conservation professional who can advise on A. The most effective methods of removing vegetation while safeguarding the masonry, & B. Can identify and advise on any vulnerable masonry areas exposed (and call a halt to vegetation removal where it poses a risk to the masonry).** Vegetation removal should comprise removal of ivy and other vegetation from the walls of the church and removal of trees and stumps growing in close proximity to the church walls.

TASK 2 – Masonry repairs: A small number of masonry repairs are required to stabilise the church and prevent deterioration in the short-term. **Only the most immediate needs are addressed below.** It should be noted that past OPC (Ordinary Portland Cement) repointing is beginning to fail, and it should be anticipated that the church will require repointing with a lime-based mortar in the medium-term. All immediate repairs should be undertaken using a lime-based mortar (details provided as an appendix).



Above: Repairs recommended works for Palmerstown Church.

Works have been prioritized by colour in the illustration above by colour in the order urgent works, short-term works and beneficial (but not urgent) works. In addition, there is a general recommendation that the entire church be repointed and the walls re-capped with a lime-based mortar as soon as resources allow.

TASK 3 – Graffiti removal: Graffiti at the church tends to be small-scale, and it would be very beneficial for the building and the area to break the habit of graffiti attack in this early stage before the practice becomes established at the site. Much of the paint-based graffiti at Palmerstown Church is likely to be straightforward to remove, and this task could be undertaken by the local community. Chemical-based cleaning is needed to remove the graffiti. Given the small scale of graffiti at Palmerstown and the limited types of graffiti in evidence, a small amount of training could be provided for the local community to:

- Learn & use the most effective (and least harmful) chemical cleaners appropriate for this church.
- Learn the most effective (and least harmful) cleaning techniques for graffiti removal.
- Identify the types of graffiti which can be cleaned, and which require specialist contractors

TASK 4 - Vegetation within the graveyard

A survey should be undertaken by a tree professional with a view to long-term management as it may be necessary to cut back some trees and to entirely remove others in the short to medium-term. The advice of Dr. Rosaleen Dwyer, Heritage Officer with South Dublin County Council should be sought to guide which trees and other plants could be cut back without loss of natural heritage value to the site.

TASK 5 – Memorial repairs

It is recommended that the priority works to repair the church building are carried out before any repairs to memorials are considered. It is possible for a specialist to repair many of the cracked and damaged memorials. but it will not be possible for members of the local community to lift and re-secure graveslabs or re-erect fallen memorials. There is at least one graveslab within the interior of the church (below the east window). The **existing ground level should not be disturbed until vegetation removal and repairs to the church are completed** (as otherwise these graveslabs would be exposed to accidental damage during works). The surface debris can be removed after necessary repairs to expose any graveslabs with the guidance and assistance of an archaeologist). A new gravel floor should be provided within the interior of the church.

TASK 6 – Increasing awareness & visibility

The current access is currently restricted and the local community and the local authority could consider the benefits and feasibility of opening up the current access and managing vegetation on the approaches to the site to make it more attractive to members of the public. It is recommended that the ground cover and mature trees along the approach path to the graveyard be thinned-out to improve visibility and encourage greater appreciation of the site. Depending on resources, a small all-weather information board (similar in design to those seen on the approaches to national monuments in state care) could be considered to describe the archaeological and local historical importance of the church building and the graveyard as a local place of burial which could enhance public enjoyment and appreciation of the place.

Contents

1. Introduction and Purpose of the Report

This conservation report was undertaken at the request of South Dublin County Council. The purpose of the report is to assess and advise on the condition and vulnerabilities of Palmerstown Church. The site consists of two associated monuments listed on the Record of Monuments and Places (RMP): DU017-026001 Church, and DU017-026002 Graveyard.

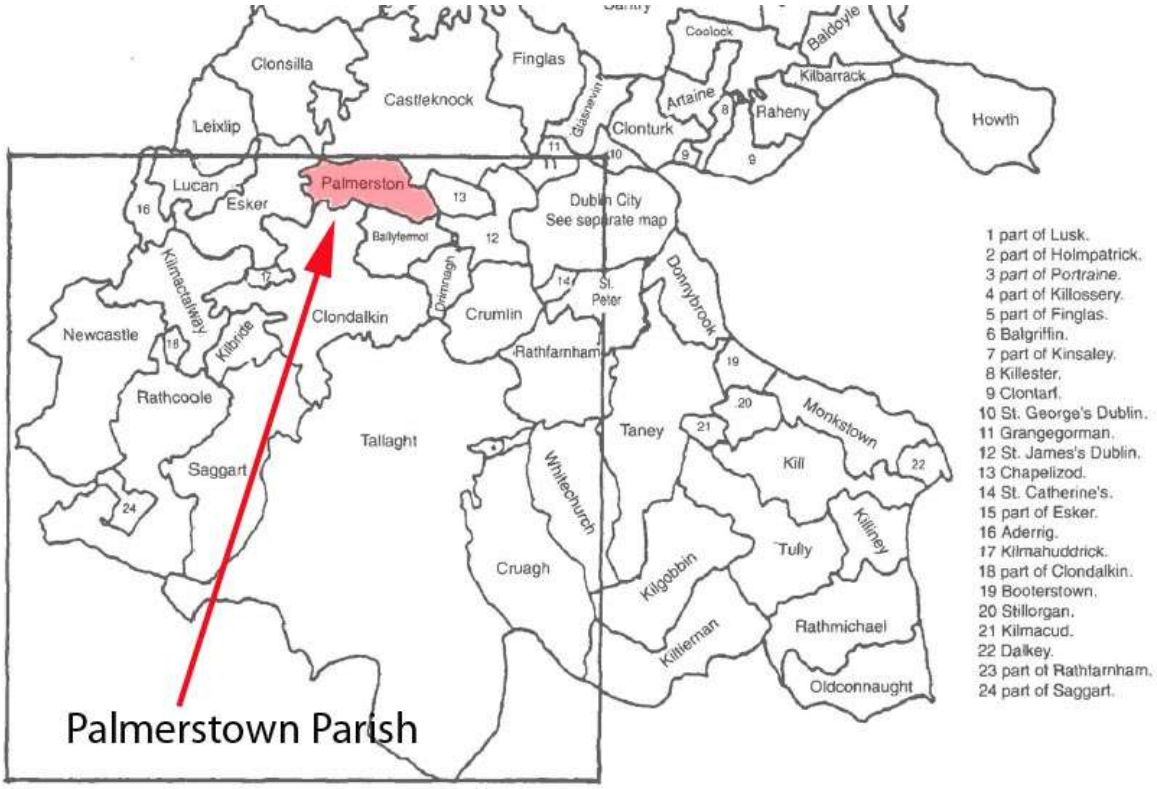
1.1 Methodology & Limitations of Inspection

The building was examined using a standard methodology for the assessment of stone monuments while also considering current planning guidelines[1]. The site was visited during March and April 2013 under different weather conditions (dry & wet). The inspection encompassing a close visual observation of the façade of the building from ground level, together with a digital photographic record[2] of relevant features, following the survey methodologies for historic building exteriors and historic stone surfaces laid out in Teutonico (1988)[3], Cooper et al (1997)[4], Pavía & Bolton (2001)[5], Fitzner and Heinrichs (2002)[6], Bolton & Pavía (2005)[7], Durnan (2006)[8], and Abray (2007)[9] and other technical references to the inspection, analysis and repair of historic buildings and monuments (as referenced in the main body of the text). A portable microscope was used to examine stone surface *in situ* (particularly the impact of graffiti). A limited amount of plant growth was removed during the inspection to determine its effect on the masonry, the probable depth of root penetration, and surface condition of the exposed mortars in proximity to plant growth.

2. Palmerstown Church

2.1 Historical Context

Palmerstown church is one of almost three hundred medieval churches and chapels known across the Dublin region. Surviving medieval churches in the Dublin region range from fragmentary remains surviving at foundation level, to standing roofless ruins (such as Palmerstown), to churches which have been incorporated within the fabric of later buildings. Palmerstown church forms part of a group of medieval parish churches found in south-west Dublin, and can also be understood in the context of a wider archaeological landscape reflected by archaeological excavations[10] and prehistoric and other sites and monuments surviving in the Palmerstown area (see Section 2.2).

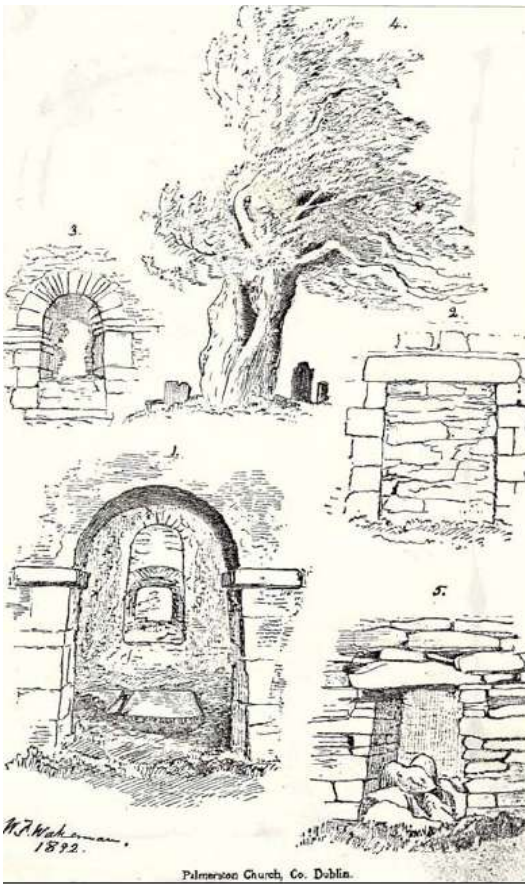


Above: Location and extent of the medieval parish of Palmerstown (after Ni Mharcaigh 1997).

The parish of Palmerstown was surrounded by the parishes of Esker to the west, Castleknock north of the River Liffey, Chapelizod to the east, and Ballyfermot and and Clondalkin to the south. The church formed part of the extensive possessions of the priory of Christ Church. Palmerstown therefore formed part of an extensive medieval ecclesiastical estate.

2.2 Previously published plans and photographs

A number of previously published plans, photographs and illustrations are useful in determining the pace of change to Palmerstown Church in recent years. These suggest that the ruin was well-maintained during the 1990s, and illustrate how quickly vegetation can develop with the absence of regular vegetation control.

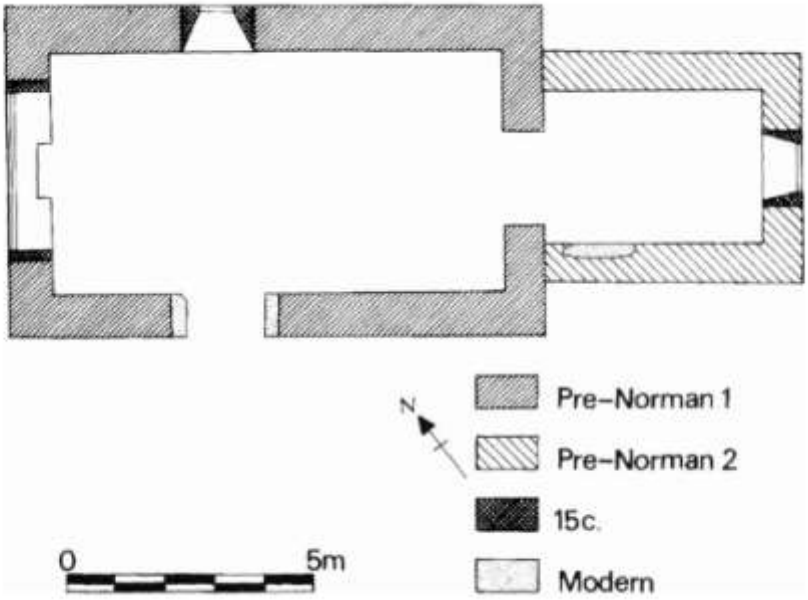


Above: Drawings by Wakeman of key elements of Palmerstown church as viewed in 1892.

Above: Undated photographs of Palmerstown Church by Ni Mharcaigh (1997) negligible biological colonisation (compared with the c.1992 P. Healy photograph) and the graveslab below the east window.

Above: Photo of the church by Patrick Healy noted c.1992[11], showing plant growth in joints and/or horizontal surfaces (arrowed in red) and graffiti (arrowed in purple).

Right: Photograph of the chancel by the NIAH c.2002[12] showing vegetation developing on the north side of the nave and in isolated locations on the chancel walls.



Above: Interpretation of the phases of Palmerstown Church by Ni Mharcaigh (1997)

2.3 Description

The archaeological site consists of a ruined roofless medieval two-chamber stone church (DU017-026001) set within a graveyard enclosure (DU017-026002) containing post-medieval memorials located off Mill Lane in Palmerstown, on the south side of the River Liffey.

2.3.1 Church DU017-026001

The building consists of the ruinous remains of a nave-and-chancel church with a double bell cote at the apex of the west gable[13]. There is no clear date for the original construction of the church, through most authors attribute a pre-Norman (i.e. pre-1169) date for construction, primarily on the basis of the (now blocked-up) west doorway. Ni Mharcaigh (1997)[14] considered the earliest two phases of the church to be pre-Norman:

> "The form and fabric of the arch indicate that the chancel was a pre-Norman addition. The church was later altered by blocking the door, inserting the west window and opening a door in the south wall of trhe nave. A bellcote was added to the west wall. The east window was altered to the form apparent in the east gable and later to the present late medieval form. The two-light window in the north wall of the nave with glazing bars and hammer-dressed limestone moulding is also very late. It is concluded, therefore, that a single-cell church, to which a chancel had been added in the pre-Norman period, was altered in Anglo-Norman times and altered again to its present form in the late medieval period".

Above: General view showing the entrance and capped walls of the south wall of the nave.

Above: The chancel arch with its distinctive imposts has been constructed from Calp limestone. Note the almost completely obscured graveslab in the chancel floor.

Walsh (2008)[15] noted that "The second cell, an eastern chancel, is a later addition; it is narrower than the nave and its walls are not integrated with those of the nave". Con Manning has contended a typological progression of deep antae becoming shallower and gradually disappearing, with antae-less churches such as Palmerstown tending to date to the late eleventh and early twelfth century[16]. Tadhg O'Keefe has suggested Palmerstown was built before c.1120[17], while Tomas O'Caragain, departing from earlier authors, considered the nave and chancel to be contemporary: "Palmerstown, a single-phase nave-and-chancel church. Unlike Killiney and the early Glendalough chancels, its chancel has plain imposts; it is probably early to mid-twelfth century"[18].

The church was built with rubble Dublin 'Calp' limestone throughout, bonded with a lime-based mortar, and with traces of render surviving on the west gable and the chancel arch. The building retains traces of internal plasters and external renders. The building shows evidence of twentieth century repairs including repointing and wall capping in OPC-based mortars.

2.3.2 Graveyard DU017-026002

The graveyard immediately surrounding the church consists of an oblong defined by a Calp limestone masonry wall, approached through an undefined track from Mill Lane. The curvature at the northern corner of the boundary wall may follow the line of an ecclesiastical enclosure. The graveyard and the immediate surroundings features mature vegetation including shrubs and trees, with the land falling to the River Liffey on the north side of the graveyard. The graveyard is not formally laid out and contains a number of different memorials including gravestones, grave-slabs, and free-standing memorials. These memorials range in date from the early eighteenth century to the first half of the twentieth century.

Above: View of the western quadrant from the gateway showing the grassy area on the south side of the church and mature tree cover occupying the west side of the graveyard.

Above: Vegetation has recently ben cut back on the east side of the entrance into the graveyard. This has exposed a number of memorials adjacent to the walls.

Above: In contrast to the well-maintained lawns of 1992 (see Section 2.2), the interior of the graveyard ranges from low vegetation beneath mature tree cover where memorials are visible (left) to overgrown and the largely impassable south-east quarter (right).

3. Condition Survey

3.1 Stone Church

The nave-and-chancel church is a ruined, roofless stone structure located off Mill Lane. The chancel arch and west gable with bellcote stands to full height. The north wall of the nave is capped at eaves level, while the south wall has been partly taken down, levelled and capped with a wide opening in the western end of the south wall forming the only entrance into the church[19]. The church stands alone with no other ancillary structures or features (apart from the graveyard wall and associated memorials) visible at ground level.

Photographs and illustrations of the church building (see Section 2.2) dating from 1892 to 2002 show that the ruined fabric of the church remained in good condition throughout the twentieth century. The church has been stabilised in the past with repointing repairs and wall capping executed using OPC mortars. However, the church appears to have not had the benefit of maintenance works for some time, and has suffered from vandalism. The key issues affecting the different elements of the church are outlined below.

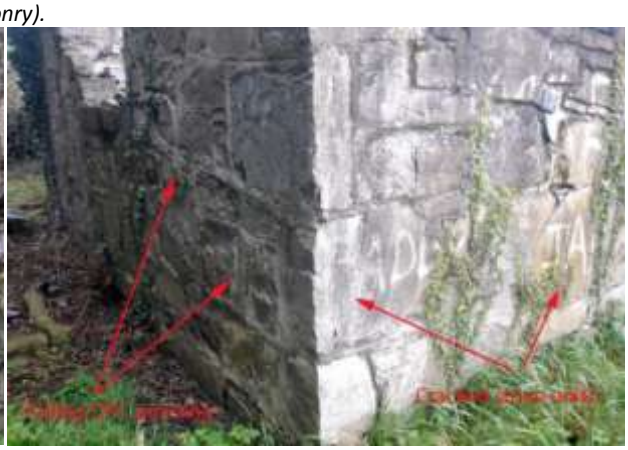
3.1.1 Nave, South Wall: The south wall of the nave has been previously repaired using OPC-based mortars. The wall shows light biological colonisation (mainly ivy & ferns, with plants exploiting dry joints on the internal face), minor graffiti (evident on the interior). The interior face of the wall shows some fire damage.

Above: The south wall of the nave has been capped and repointed with OPC mortars. The external wall face shows well-developed vegetation cover, particularly at the east end but with new growth developing at the west end also. Graffiti is also present.

Above: The external face of the south wall of the nave has been previously repaired in OPC-based mortar and shows well-developed ivy, some voids forming in the joints, graffiti and damage to some stones from fires.

Above: Degradation of the masonry arises from the development of ivy, the burning of fires which is damaging the stones, and loss of mortar from the joints (which destabilises the masonry).

Above: A variety of biological organisms are found: black merismetic fungi (unsightly &often confused with soiling deposits), to higher order species penetrating the joints.



Above: The south-west corner of the masonry contains some cracked stone suggesting minor movement of the structure. OPC joints have also failed in this area.

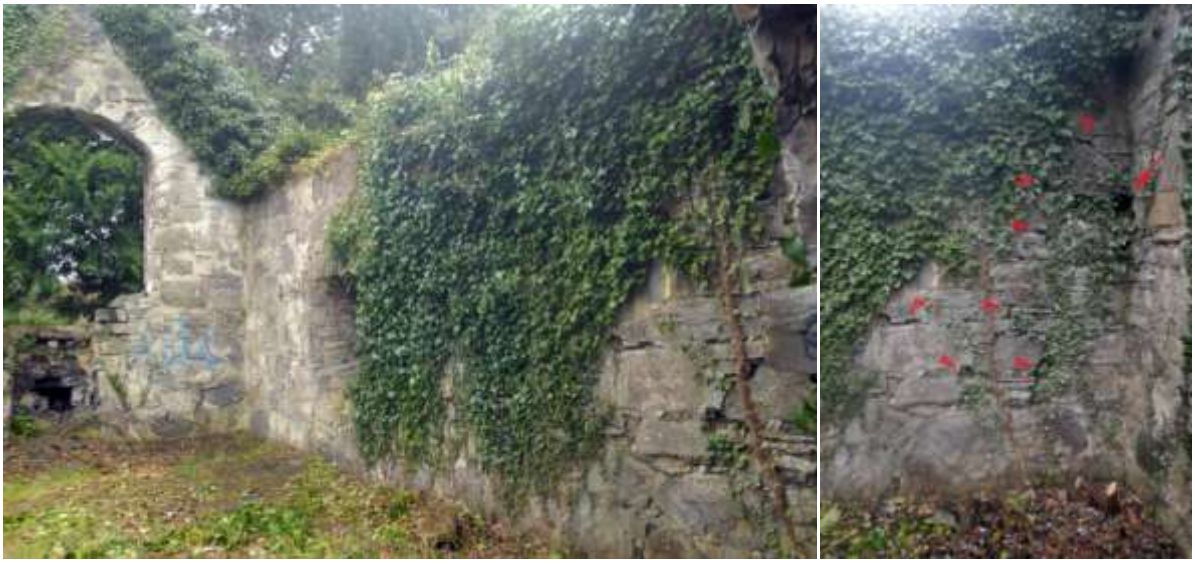
3.1.2 Nave, North Wall: The north wall stands to eaves level and retains a single window but is largely concealed behind vegetation. The masonry (where visible) currently appears in reasonable condition. However, given the intensity of plant growth, it is likely that the wall capping has failed and that a number of small masonry repairs are concealed beneath the leaf cover.

Above: The condition of the external face of the north wall of the nave is largely concealed behind vegetation. A tree is growing in close proximity to the window (above right). This tree should be removed.

Above: The external face of the east window is obscured by vegetation (left) but the interior (right) appears in good condition though will be similarly obscured without active intervention to control vegetation. Note the survival of plasters on the internal face. Graffiti can also be seen on the exposed stone masonry.

Above: Detail of the masonry exposed on the external face of the north wall. The OPC pointing in this area appears in reasonable condition, though much is obscured by vegetation.

Above: The north window is heavily obscured, however the masonry appears in reasonable condition and it should be possible to carefully remove the ivy and other plant growth without significant damage to the masonry.

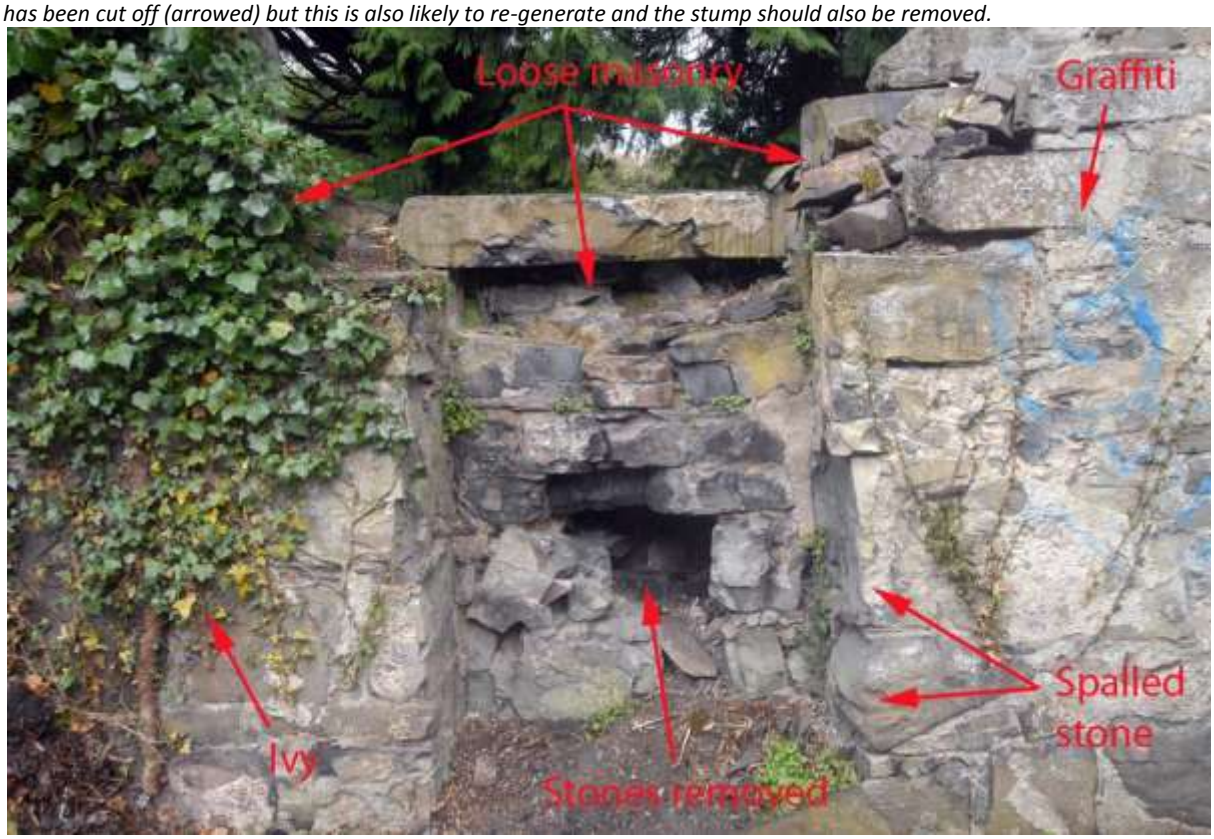


Above: The inside face shows ivy overtopping the wall (left) while the exposed masonry at the east end of this wall shows dry joints (arrowed) and a lost masonry unit.

3.1.3 Nave, West Gable: Biological colonisation and damage to the blocked-up doorway are the two most pressing issues at the gable. Failure of OPC mortars on the external face and graffiti on the internal face was also noted.

Above: The west gable is overgrown with mature ivy which conceals the southern face of the interior, the northern face of the exterior, and the wall tops. The masonry has been repointed with OPC-based repointing mortar, though original mortars and traces of former external renders and internal plasters survive. The masonry of the blocked-up west doorway has been disrupted, and some graffiti is present on the wall surfaces of the interior.

Above: The west door is generally considered to be early (sloping jambs and a flat lintel). The distinctive jambs stones illustrated by Wakeman in 1892 (see Section 2.2) have been obscured by OPC repointing and the lintel has cracked and dropped. These OPC mortars are in poor condition and have lost bond with the limestone masonry in many locations, with open dry joints visible within the blocked-up work. Ivy growth is re-generating and should be removed. A young tree/shrub has been cut off (arrowed) but this is also likely to re-generate and the stump should also be removed.



The internal face of the west doorway is in very poor condition. The blocked-up work has been interfered with and no longer adequately supports the lintel. The lintel and adjacent masonry is loose and liable to collapse. In comparison, the graffiti, while

Above: The south side of the doorway is overgrown but the exposed masonry is loose and requires consolidation.

Above: The surviving half-lintel has cracked along it's length and also cracked where it meets the jamb.It should be noted that any further vandalism with this lintel will result in its collapse. The surrounding masonry is loose and requires consolidation.

Above: The bellcote (left) shows well-developed vegetation which will begin to disrupt the masonry if left unattended. While vegetation has been removed from the base of the wall, new growth can be seen at the base of the wall and ivy can also continue to grow higher up on the wall where the root systems have established a foothold. The external and internal surfaces of the wall also retain traces of original renders and lime pointing (right) which should be retained.

3.1.4 Chancel: South Wall: This short length of wall features structural cracks visible on both the internal and external faces. The mortar is powdering in the vicinity of these cracks and there is a risk of collapse in this area if repairs are not undertaken. The repairs should fill and consolidate the cracks with a new lime-based mortar to secure the fabric of the wall. Some of the joints on the internal face of the wall have failed and are allowing moisture ingress. The wall tops have been disrupted by vegetation growth and are in poor condition, especially at the west end where the chancel meets the nave. A young tree is growing immediately adjacent to the wall, and while this has been cut back, this plant should be removed entirely as a preventative measure to safeguard the chancel wall in the long-term. The internal face of this wall appears saturated suggesting failure of the mortar capping the wall. Graffiti is also present, but while unsightly, is not having a significant impact on the masonry.

Above: Vertical structural cracks (arrowed in red) illustrate an area at risk of collapse.

Above: The corresponding internal face of the wall shows voids in the masonry corresponding with the structural cracks visible externally, and plant growth in the joints indicating both mortar failure and saturated masonry. Vegetation has also colonised the walltops and graffiti can be seen on the internal face of the chancel.

Above: The graffiti while unsightly is not as damaging to the fabric of the church as the failing mortar joints (left) while the vegetation on the walltops conceals disruption of the tops of the walls (right).

3.1.5 Chancel, North Wall: The north wall of the chancel has been capped with an OPC-based mortar, and shows some biological colonisation on horizontal surfaces, and graffiti. This section of wall does not require any urgent repairs but should be monitored over the medium-term.

Above: The external face of the north wall of the chancel showing some graffiti, dry joints and vegetation.

Above: The internal face of the north chancel wall appears in reasonable condition. However, the vegetation may conceal some minor failures.

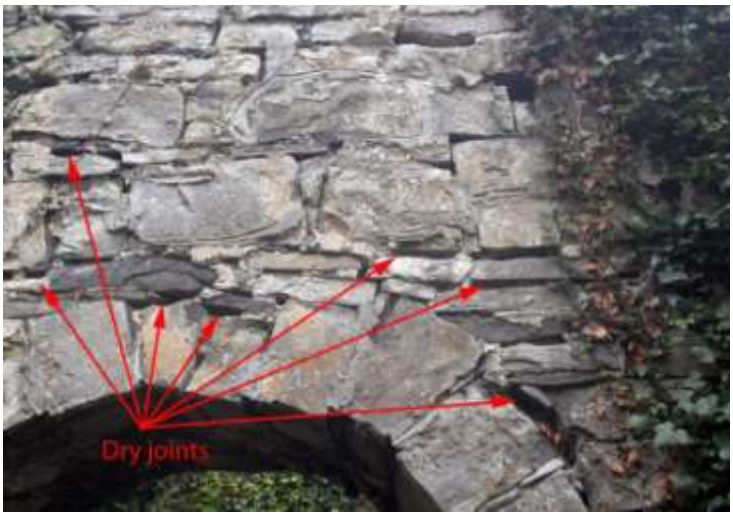
3.1.6 Chancel, East Gable: The masonry fabric of the east gable is in reasonable condition, though shows evidence of 20th century OPC-based repairs including capping and repointing. Graffiti can be seen on the exterior, while dry joints can be seen below the east window on the external face. The masonry cill of the window requires consolidation.

Above: While graffiti is present, the key issues are the ivy growth and dry joints. The memorial attached to the south-east corner of the chancel is also deteriorating and the base should either be consolidated (treat corroded iron & consolidate the base), or the memorial removed entirely as without intervention, the memorial may collapse.

Above: Detail of the east window showing cut ivy, the early stages of dry joints and graffiti on the exterior (left) and masonry requiring ivy removal, minor pointing (arch) and consolidation (cill) on the interior (right).

Above: The memorial attached to the south-east corner is held by corroding iron supports.

3.1.7 Chancel Arch: The chancel arch is one of the most distinctive features of the church. The lower half of the masonry commonly shows dry joints and failures should be expected in the short to medium term if these areas are not pointed up with an appropriate lime-based mortar. The upper sections of the masonry (where plasters survive) appear in better condition though the ivy conceals much of the surface from close inspection. Graffiti is present in two types – paint-based (removable) and etchings (permanent).



Above: The east face of the chancel arch shows dry joints in the lower half of the wall, while much of the upper half and sides of the arch are concealed by ivy growth.

Above: Deep dry joints are evident in the masonry surrounding the chancel arch.

Above: Damaged stone and graffiti (painted & etched) can be seen on the chancel arch.


Above: The intrados of the chancel arch shows some dry joits (mainly on the south side) and retains evidence that it was formerly plastered.


Above: The east face of the chancel arch repeats the pattern seen on the west face – with a need for removal of the ivy growth and local pointing-up of dry joints.

3.1.8 Internal Floor Area: The ground surface within the church is a mix of soil, gravel, waste and burnt debris, isolated loose limestone masonry and vegetation. Part of a graveslab remains visible in the chancel beneath the east window. While other graveslabs are probable to be found beneath the existing floor level, these should not be uncovered until necessary repairs are undertaken to secure and safeguard the masonry walls of the church.

Above: Contrasting floor surfaces with the chancel (left) showing burnt debris and the nave (right) overgrown.

3.2 Graveyard

3.2.1 Gravestones: A limited number of memorials are currently visible within the graveyard. Some of these are concealed beneath vegetation, while others have experienced vandalism. The key issues are illustrated below.

Above: General view of the west end of the graveyard.

Above: Recent vegetation clearance at the boundary wall.

Above: The north-east quadrant of the graveyard has standing gravestones covered with ivy. The ivy is having negligible impact on the gravestones.

Above: The south-east quadrant of the graveyard is overgrown and difficult to access, though this difficulty may be protecting the memorials from vandalism.

Above: Limited dumping was in evidence within the graveyard, and it would be beneficial if this material was removed.

Above: It should be noted that some memorials experience natural weathering which does not require conservation if it does not impact the integrity of the stone or the carvings.

Above: This stone has been badly damaged. These types of cracks are spalls are most likely to arise from impact damage.

Above: This prostrate slab is concealed beneath vegetation south-east of the chancel. This stone is very vulnerable to damage as a crack runs horizontally through the centre of the stone. This memorial should not be moved but should be allowed to remain as found.

Above: Gravestones which stand askew (left) or are being moved by tree growth (right) should be left as found. No attempt should be made to straighten or re-align these stones.

Above: The lettering on this graveslab has become difficult to read as the surface of the stone weathers back. The surface has suffered from graffiti (etching) which has permanently damaged the surface.

Above: This cracked memorial lies adjacent to the boundary wall and appears to be somewhat protected from anti-social behaviour within the graveyard. It is possible to re-erect and secure cracked slabs such as this once the church building has been secured.

Above: This slab has fallen but the stone has not cracked. Allowing this gravestone to lie in this position leaves it prone to accidental and intentional damage. It would be beneficial for the long-term preservation of this memorial to re-erect it.

Above: Similarly, this cracked and fallen slab below the east window should be either placed upright or re-secured to its base. However, this work should be carried out once repairs to the church building have been completed.

Above: This memorial attached to the south-east corner of the chancel is vulnerable to collapse, but very small works to treat the iron and consolidate the base would ensure its survival.

Above: Fragments of damaged memorials are found in a number of locations in the graveyard.

Above: This headstone is cracked but is repairable.

Above: The Carnegy family memorial adjacent to the west gable stands slightly off-centre, and the railings which formerly surrounded the memorial have been lost. The memorial is stable and does not require any urgent works.

3.2.2 Access & Visibility: The site is not visible or signposted from Mill Lane, and the existing gate and fencing separating the site from Mill Lane ad to the sense of isolation and abandonment at the site. Without knowledge of the archaeological importance of the church or the social values of a burial ground, the character of the place is of an abandoned ruined site. The approach path from Mill Lane is muddy and damp, and the existing railings are likely to inhibit normal public access but prove no barrier for anti-social behaviour. The church is not visible from the approach path until the open gateway to the graveyard is reached.

The graveyard is accessed through a single entrance in the south side of the stone graveyard wall. There is also a narrow gap in the masonry to the west of the main entrance. There does not appear to be any other entrance point into the graveyard in current use, though rubbish is being dumped at one point over the northern side of the graveyard wall into the adjacent field. The boundary wall is low and if a new gate were to be installed and the gate locked, the existing boundary wall would not form a barrier to entry into the graveyard. Screening provided by mature vegetation within and immediately outside the graveyard largely conceals the space from the surrounding area. Pedestrian footfall is not currently having any significant impact on the graveyard. Ground cover on the northern side of the graveyard is low, but brambles, shrubs and other cover tend to be found on the south side of the graveyard. Aside from litter, a small amount of dumping was in evidence within the graveyard[20].

The church is fully accessible and efforts have clearly been in evidence to maintain the church as a publicly open space. The full floor space of the nave and chancel have been cleared, though the current floor is covered with rubbish. It is possible to circumnavigate the church, though there is no formal path.

Above: View from Mill Lane (looking east) showing the access track from the lane towards the church. There is no signage and the church is not visible from the lane.

Above: Access to the church is partially barred by a metal gateway which inhibits ease of access but does not prevent anti-social behaviour.

Above: View of the access track looking west from the entrance to the graveyard and Mill Lane (arrowed).

Above: General view of the access track flanked by trees, ivy, shrubs and other vegetation.

Above: The vegetation flanking the track contains debris and waste, some of which forms fuel for burning at the church.

Above: The track opens out around the entrance to the graveyard, providing limited views of the church.

Above: The graveyard entrance (arrowed) is ungated. However, the wall is low would not prevent unauthorised access, and a narrow gap is visible.

3.2.3 Anti-Social Activity: includes ***vandalism*** and ***fires*** and ***dumping***. Intentional vandalism and anti-social behaviour is having a significant impact on Palmerstown Church and graveyard, mainly:

- **Physical dismantling of masonry** within the church (mainly at the west door, but the east window also shows signs of interference): The blocked-up west doorway is the earliest and most interesting element of the church. Vandalism consists of the removal and de-stabilisation of stones, and the lighting of fires. The fire within the doorway has had only relatively minor impact as the temperatures achieved appear to have been quite low, and the soiling is easily removable. However, the removal and displacement of stones (presumably to facilitate the lighting of fires) is having a serious impact on the doorway. **Repairs to this area should be considered a priority** as any further interference in this area will cause serious damage to this important feature.

- **Intentional destruction of memorials** within the graveyard. Damage is mainly in the form of cracking & shattering of stone memorials, though at least one stone shows etched graffiti.

- **Burning of fires** in two areas within the church (the west door & the south-east corner of the nave) is damaging the stone masonry in these areas. At the west door, fires have left black soiling on the surface of the masonry. At the south-east corner of the nave, fires have caused the surface of the stone to fail.

- **Graffiti**: Graffiti was noted in small locations on the internal and external faces of the church (see diagram in Section 4.2). Some of these are quite old (1990s) while others appear to be new. Given the increase in graffiti attacks on historic buildings and archaeological monuments in recent ears, the onset of a new wave of graffiti attacks at Palmerstown church is of understandable concern. While graffiti is unsightly and detracts from the heritage value of the site, it **does not pose a significant threat to the fabric of the monument and is easily removable**. Graffiti removal can be undertaken by the local community (with some professional guidance on site on appropriate chemical cleaners and cleaning techniques) but this should work should not be prioritised ahead of vegetation management and necessary repairs to the masonry.

- **Dumping** comprises mainly drinks cans and glass. While aesthetically undesirable and also raising sanitary and safety concerns, dumping also detracts from an appreciation of the heritage value of the site. However, this form of dumping is having a negligible impact on the church or on any buried archaeological sites, features or deposits.

4. Conservation Method Statement

The purpose of a Conservation Method Statement is to address the repair and safeguarding of the monument. The recommended tasks outlined below are not intended to renovate or restore the church or graveyard in any way, but are intended to safeguard the site only, without detracting from its archaeological and architectural significance. Please note that all recommendations are subject to approval by the Department of Arts, Heritage and the Gaeltacht.

Key Objectives:

1. Preserve the church, graveyard and any buried archaeological features, structures or deposits.
2. Prevent collapses or dislodgement of areas of masonry/individual masonry units.
3. Remove any vegetation posing a significant risk to the physical fabric of the church
4. Prevent/reduce/re-direct anti-social activity at the site.
5. Increase visibility and awareness of the cultural and recreational significance of the church and graveyard site guardianship as a means of safeguarding the monument.
6. Recommend a course of actions to allow ongoing safeguarding, repair and ongoing maintenance of the site.

To achieve these objectives, the following tasks are recommended (each of which are treated in detail in the relevant sections below:

- Treatment of the vegetation
- Masonry repairs
- Memorial Repairs
- Awareness of extent and archaeological significance of the site
- Graffiti and anti-social behaviour

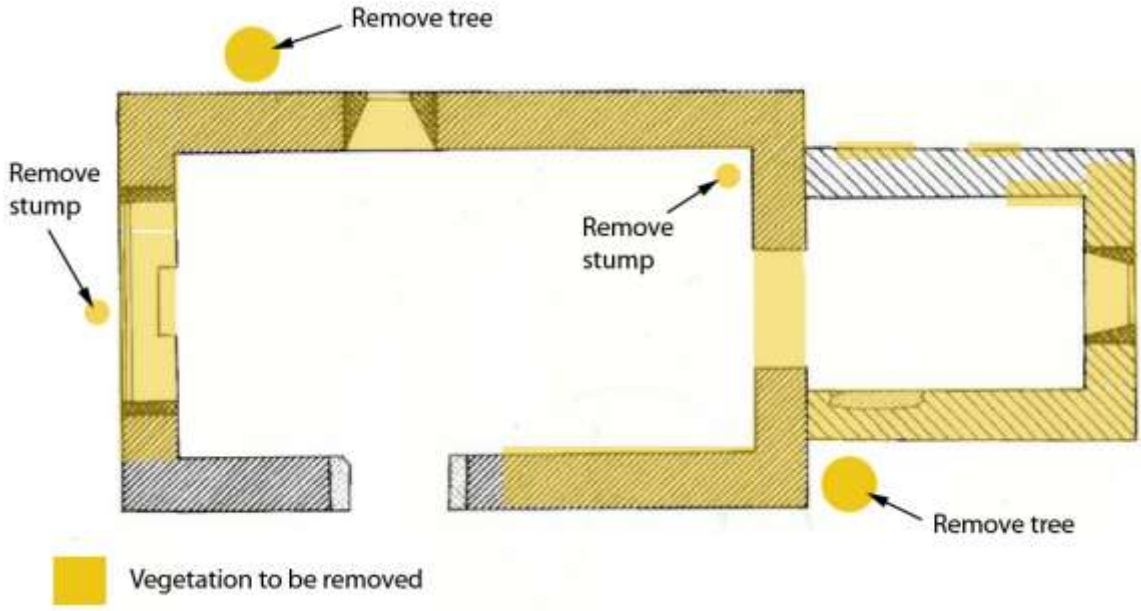
4.1 Treatment of the Vegetation

The fabric of the church shows colonisation by higher order species including ivy and young trees, with thick ground cover in some areas of the graveyard. Vegetation is normally found on Ireland's archaeological field monuments. Similarly to stone surfaces found on natural outcrops, stone buildings and monuments offer surfaces suitable for biological colonisation, having suitable wetting and lighting conditions and often a wide variety of essential nutrients for living organisms. There is a wide-ranging literature on the impacts of biological growth on archaeological monuments and historic buildings both internationally and in Ireland[21]. Vegetation growth is recognised by conservation professionals as having both positive and negative impacts on archaeological monuments. A wide variety of organisms (including mosses, lichens, grasses, flowering plants, trees etc) can significantly modify stone surfaces, sections of masonry or even an entire site through mechanical disruption, chemical alteration, and the obscuring of the significance of the site. However, the ecological value of monuments has become widely appreciated in recent years (e.g. Meech 2001[22], Ferraby 2007[23]) as ruins and other built

structures offer habitats for diverse wildlife and can add to the biodiversity of a place. From a conservation perspective, the decision to remove or retain biological growth is normally taken after an assessment of the trade-off between bioweathering [the biochemical and biophysical impact of growth] and bioprotection [the sheltering afforded to a stone surface by biological growth] (Saiz-Jiminez 1997[24], Schiavon 2002[25], Bolton 2007[26], Noah's Ark 2007[27]).

4.1.1 Vegetation at & within the church building

Palmerstown Church currently supports a number of higher order species (ivy, brambles, shrubs, trees) known to cause disruption and contribute to the destruction of archaeological monuments. **The growth of vegetation is disrupting the masonry, penetrating the joints and de-stabilising the walltops.** Past photographs (see Section 2.2) illustrate that these plants have colonized the building in recent years. None of these plants appear to provide bioprotection, and there is no advantage to the building in allowing any of these plant species to remain. The ivy in particular, if allowed to remain, will penetrate the joints and necessitate masonry repairs. The young tree on the south chancel wall has disrupted the wall fabric (which now requires repair) and similar damage should be expected elsewhere if the current levels of vegetation are allowed to remain. **It is recommended that all vegetation be removed from the church building. This can be carried out on a phased basis depending on resources.** Vegetation should be removed carefully using hand tools only. It should be noted that it is likely that areas of masonry may require immediate/short-term repair and consequently **it is recommended that vegetation removal be carried out under the guidance of a conservation professional who can advise on A. The most effective methods of removing vegetation while safeguarding the masonry, & B. Can identify and advise on any vulnerable masonry areas (and call a halt to vegetation removal where it poses a risk to the masonry).** Vegetation removal should comprise removal of ivy and other vegetation from the walls of the church and removal of trees and stumps growing in close proximity to the church walls, as illustrated below:



Above: Vegetation to be removed from Palmerstown Church.

4.1.2 Vegetation within the graveyard

Trees: There are a relatively large number of mature trees within the graveyard, and it is recommended that a survey of these be undertaken by a tree professional with a view to long-term management. It should be noted that a falling tree can cause significant damage to an archaeological monument. It should be anticipated that it will be necessary to cut back some trees and to entirely remove others in the short to medium-term. The advice of Dr. Rosaleen Dwyer, Heritage Officer with South Dublin County Council should be sought to guide which trees and other plants could be cut back without loss of natural heritage value to the site.

Above: The graveyard features a relatively large number of mature trees within the graveyard itself and in close proximity to the boundary walls. The burnt tree north-west of the chancel (left) should be removed. The relatively dense tree growth in the western quadrant of the graveyard (right) currently has negligible impact on the memorials, but should be assessed by a tree professional with regards to long-term management.

Ivy: Ivy on the boundary walls and on some memorials is having negligible impact and could be either removed or allowed to remain depending on how the local community would prefer the graveyard to appear. All removal should be by hand, and no biocides/herbicides should be used (or are necessary) to remove vegetation from the memorials.

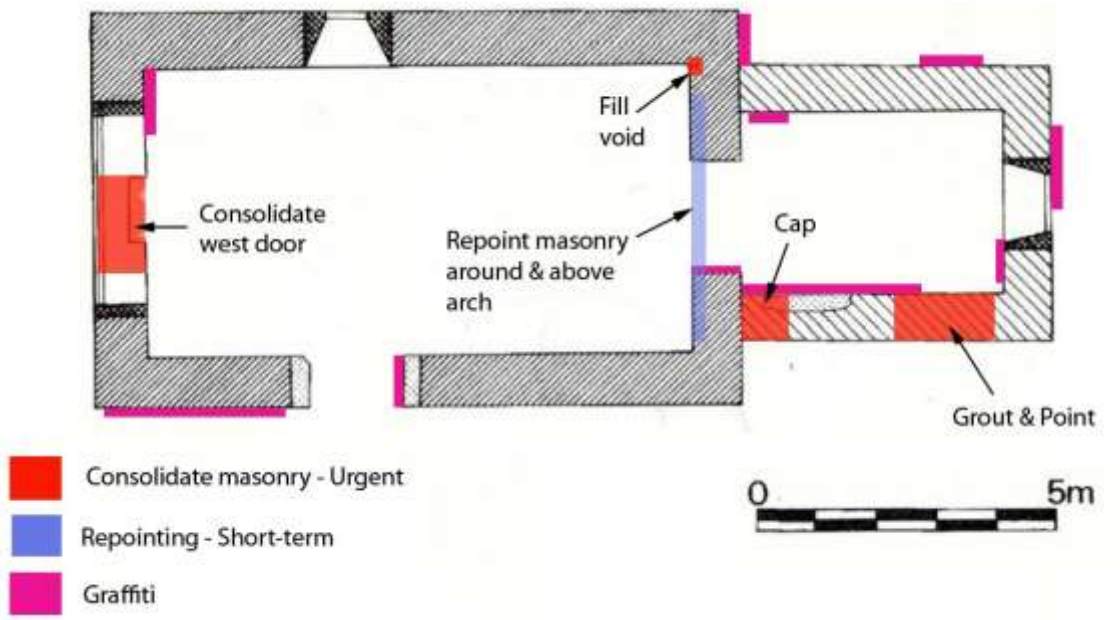
Ground Cover: Ivy and other vegetation can be found growing around and sometimes concealing memorials within the graveyard. While this growth obscures some memorials, it also provides a measure of protection from anti-social behavior. The south-east quadrant of the graveyard is heavily overgrown, and it is suggested that this area could be allowed to remain temporarily overgrown while other repairs elsewhere in the graveyard and at the church are completed.

4.1.3 Vegetation flanking the approaches to the graveyard

In addition to the treatment of vegetation impacting the church and graveyard directly, it is also **recommended that the ground cover and mature trees along the approach path to the graveyard be thinned-out to improve visibility of the site.** Increased visibility of the graveyard will enhance its visibility and encourage greater appreciation of the site. The advice of Dr. Rosaleen Dwyer, Heritage Officer with South Dublin County Council should be sought to guide which trees and other plants should be cut back.

4.2 Masonry repairs

A small number of masonry repairs are required to stabilise the church and prevent deterioration in the short-term. **Only the most immediate needs are addressed below.** It should be noted that past OPC (Ordinary Portland Cement) repointing is beginning to fail, and it should be anticipated that the church will require repointing with a lime-based mortar in the medium-term. It should also be anticipated that removal of the vegetation cover may uncover other necessary repair work. All immediate repairs should be undertaken using a lime-based mortar (details provided as an appendix). This mortar can also be used for repointing the church when resources allow.



Above: Repairs recommended works for Palmerstown Church.

Works have been prioritized by colour in the illustration above and the text below by colour in the order urgent works, short-term works and beneficial (but not urgent) works. It should also be noted that in addition, there is a general recommendation that the entire church be repointed and the walls re-capped with a lime-based mortar as soon as resources allow. The recommended works comprise:

- **Consolidate west door:** The west door should be consolidated using rubble Calp limestone masonry and a lime-based mortar (details provided in the appendix). While the existing lintel is cracked, but this is a historical alteration to the doorway which is of archaeological significance, and it is important that this past repair be allowed to remain *in situ.* The lintel should not be replaced, instead new rubble masonry should be packed in beneath it to support and secure the stone. The loose masonry at the 'shoulders' of the doorway should be secured as found with a lime-based mortar, and the void within the blocked-up work should be filled and made flush.
    - NB – It should be noted that these repairs will secure the doorway, but the feature will still remain as an alcove where fires may be lit. To prevent fires within this feature, it would be necessary to fill the alcove with new rubble, set back c.50-80mm from the flanking walls to retain the shape and presence of the former doorway when viewed from the interior. However, this potential option would be a material alteration of the church and would require discussion between the local community, the Heritage Officer, the Conservation Officer and the Department of Arts, Heritage and the Gaeltacht.
- **Cap south wall of chancel:** Vegetation growth has disrupted the OPC capping of this wall (as indicated on the diagram above. All vegetation should be removed from this wall, and the masonry secured and pointed up using a lime-based mortar. This is likely to necessitate removal of vegetation/roots, proto-soil in the joints and other minor actions. This consolidation is intended to stabilise the existing masonry and protect the character of the monument, and SHOULD NOT involve any conjectural re-building.
- **Repair cracking at south chancel wall:** The cracking at the south nave wall should be considered as a priority repair as further deterioration will result in the collapse of this section of the church. All vegetation should be removed, the existing OPC mortars removed and the joints cleaned of any debris. The cracks are quite deep and have exposed voids within the masonry. These voids should be grouted using a proprietary lime-based grout by a specialist with experience in the repair of historic structures. The masonry should be finished up by pointing in a lime-based mortar. It should not be necessary to take down & rebuild any masonry. This consolidation is intended to stabilise the existing masonry and protect the character of the monument, and SHOULD NOT involve any conjectural re-building.
- **Fill void at north-west corner of chancel arch:** This small void is not a putlog hole or other archaeological significant feature, but appears to be a lost stone. The void should be firmly packed up with a lime-based mortar and the void made good with rubble Calp limestone to match the surrounding masonry.
- **Repoint masonry surrounding the chancel arch:** The masonry on the west side and intrados of the chancel arch show deep dry joints which need to be pointed up using a lime-based mortar (details provided as an appendix). The existing vegetation should be removed prior to any repointing works being undertaken. The area to be pointed up is quite small, confined to an aureole of masonry

surrounding the arch on the west side only. However, removal of the vegetation may uncover other areas for repair.

- **Graffiti:** Graffiti causes superficial physical damage, and also detracts from the heritage value of the church and graveyard. Graffiti at the church tends to be small-scale, and it would be very beneficial for the building and the area to break the habit of graffiti attack in this early stage before the practice becomes established at the site. It should be noted that some of the longer-standing graffiti is impossible (e.g. etching) or very difficult to entirely remove. However, most of the paint-based graffiti at Palmerstown Church is likely to be straightforward to remove[28], and could be undertaken by the local community. Simple soap-and-water based cleaning is unlikely to remove the graffiti without damaging the stone surface[29]. Chemical-based cleaning is needed to remove the graffiti. This work would normally be done by a specialist cleaning contractor. However, given the small scale of graffiti at Palmerstown and the limited types of graffiti in evidence, a small amount of training could be provided for the local community to:
    - Learn and use the most effective (and least harmful) chemical cleaners appropriate for Palmerstown church.
    - Learn the most effective (and least harmful) cleaning techniques for graffiti removal.
    - Identify the types of graffiti which can be cleaned, and which require specialist contractors

4.3 Memorial Repairs

It is possible to repair many of the cracked and damaged memorials. However, this work should be carried out by a specialist and it will not be possible for members of the local community to lift and re-secure graveslabs or re-erect fallen memorials. It is recommended that the priority works to repair the church building are carried out before any repairs to memorials are considered. In the interim, it would be beneficial for members of the local community to photographically record the condition of all the memorials, and to consider how they would like the graveyard to be presented in the medium-term once repairs to the church are completed. There are a number of Sample Memorial Recording Forms available online (e.g. the Waterford Graveyard Survey) which provide examples. It should be noted that there is no 'right' order in which the memorials at Pelmerstown should be re-erected (or not), and the local community should consider and develop a policy on which memorials should be re-erected and when this should happen.

There is at least one graveslab within the interior of the church (below the east window). The ground level consists of debris and it is possible that other graveslabs are concealed below. The **existing ground level should not be disturbed until vegetation removal and repairs to the church are completed** (as otherwise these graveslabs would be exposed to accidental damage during works). The surface debris can them be removed and any graveslabs within the interior of the church exposed (this work should be undertaken with the guidance and assistance of an archaeologist). **A new gravel floor should be provided within the interior of the church.**

4.4 Awareness of extent and archaeological significance of the site

The first impression of the church as seen currently is arguably that of a lost and abandoned site, and it would be beneficial for the long-term preservation of the site to increase awareness of its archaeological significance and its potential as a recreational site for walkers or other visitors to Palmerstown. The current access is currently restricted and the local community and the local authority could consider the benefits and feasibility of opening up the current access and managing vegetation on the approaches to the site to make it more attractive to members of the public. Depending on resources, a small all-weather information board (similar in design to those seen on the approaches to national monuments in state care) could be considered to describe the archaeological and local historical importance of the church building and the graveyard as a local place of burial which could enhance public enjoyment and appreciation of the place.

Appendix I - Suggested mortar mix for consolidation repairs at Palmerstown Church

Important: The masonry of the church should be repaired using a lime-based mortar, Modern portland cement mortars are NOT suitable for repairing a Calp limestone wall – as their use during the 20th century to repair historic limestone and lime mortar masonry fabric often resulted in accelerated deterioration of the original structure. In order to differentiate the new repair work from the original fabric, a 'new' mortar mix is provided below (i.e. this is not a mix derived from study of original mortars). This mortar should be compatible with the original fabric. A NHL 2 Natural Hydraulic Lime is recommended as the lime binder to accommodate the preservation of the softer plastering mortars surviving on the internal wall faces. There are a number of suppliers of lime-based mortars in Ireland. **Natural hydraulic lime** and **limestone sand** may be obtained from specialist conservation materials suppliers such as:

The Traditional Lime Company.
Rath, Shillelagh Road, Tullow, Co. Carlow
Phone: 059 91 51750, Fax: 059 91 52113

It should be noted that there are a number of different lime mortar brands available in Ireland (NB it should be noted for example that a NHL2 mortar from different manufacturers is likely to have different properties and strengths over time), and the manufacturers guidelines on preparation and working practices should be followed, and amended as necessary to allow for weather conditions and/or on-site conditions.

All aggregate must be:	**Binder:**
• clean • well graded • limestone sand • with particle sizes evenly spread over the size interval specified below –see grading.	Natural Hydraulic Lime (NHL 2)*

Aggregate Type and grading	**Morphology**	**Composition**
Well graded Coarse-Medium sized sand 8 - 0.07 mm (70 microns)	Sharp to sub-rounded.	Limestone sand including a sharp siliceous fraction.

Binder	Natural Hydraulic Lime (NHL 2)	
	Aggregate	Binder
Parts by Volume	3	1

Table: Suggested Mortar mix to be used for pointing / bedding the new rubble limestone masonry to repair the masonry of Palmerstown Church

Appendix II - Suggested mortar mix to be used for wall capping repairs

All aggregate must be:	**Binder:**
• clean • well graded • limestone sand • with particle sizes evenly spread over the size interval specified below –see grading.	Natural Hydraulic Lime (NHL 3)** **The wall capping will be subjected to greater weathering and rainfall than vertical wall surfaces, and consequently a slightly more hydraulic binder (with slightly less porosity) has been recommended for use in this area.

Aggregate Type and grading	**Morphology**	**Composition**
Well graded Coarse-Medium sized sand 8 - 0.07 mm (70 microns)	Sharp to sub-rounded.	Limestone sand including a sharp siliceous fraction.

Binder	Natural Hydraulic Lime (NHL 3)	
	Aggregate	Binder
Parts by Volume	3	1

Table: Suggested Mortar mix to be used for capping walls of Palmerstown Church.

Endnotes

[1] Department of the Environment, Heritage and Local Government. (2004) Architectural Heritage Protection: guidelines for planning authorities – guidance on Part IV of the Planning and Development Act 2000.
[2] A digital photographic record of the façade was undertaken using a Fujifilm S1 dSLR with a 28-70 zoom. Post-processing was carried out using Adobe Photoshop software.
[3] Teutonico, J.M. (1988) Architectural Materials – a Conservation Laboratory Manual. Rome. Unpublished ICCROM manual.
[4] Cooper, T.P. (ed) (1997) Conservation of historical buildings and associated property - EU project STEP 1994-1997. Unpublished report. Trinity College Dublin.
[5] Pavía, S. and Bolton, J. (2001) Stone Monuments Decay Study 2000: an assessment of the degree of erosion and degradation of a sample of stone monuments in Ireland. Kilkenny. The Heritage Council.
[6] Fitzner, B. & Heinrichs, K. (2002) "Damage diagnosis on stone monuments – weathering forms, damage categories and damage indices". In Viles, H.A. and Přikryl, R. Understanding and managing stone decay. The Karolinum Press.
[7] Bolton, J. and Pavía, S. (2005) Stone Monuments II: an assessment of stone monuments in South and West Cork, the Iveragh and Dingle peninsulas of Co. Kerry, and selected bedrock areas of Co. Donegal. Unpublished technical report carried out on behalf of The Heritage Council.
[8] Durnan, N. (2006) "Limestone", in Henry, A. [ed] Stone Conservation: Principles and Practice. Donhead. Pp. 161-190.
[9] Abrey, G. (2007) "Condition surveys of masonry ruins", in Ashurst, J. [ed] Conservation of Ruins. Oxford. Elsevier Conservation Series. Pp. 44-83
[10] Archaeological excavations in the area include a medieval settlement and burial at Martin's Row in Chapelizod; a burnt mound in Fonthill, and prehistoric tombs in Cooldrinagh. Source: http://www.excavations.ie/Pages/Search.php?year=&county=&site_no=&site_name=&site_type=&report_text=palmerstown&author=&grid_ref=&smr_no=&excavation_license_no=&Submit=Do+Search
[11]Source:http://source.southdublinlibraries.ie/bitstream/10599/8002/3/wm_Palmerstown%20PreNorman%20Church%2016.2.34.jpg
[12] http://source.southdublinlibraries.ie/bitstream/10599/5867/3/wm_11203013_1.jpg
[13] Chancel arches also survive at Kilmahuddrick and Newcastle.
[14] Ni Mharcaigh, M. (1997) "The Medieval Parish Churches of South-West County Dublin", *Proceedings of the Royal Irish Academy,* Vol. 97C, No. 5 (1997), Pp.245-296
[15] Walsh, N. 2008. Pre-Romanesque churches in County Dublin and its hinterland, in S. Duffy (ed.) *Medieval Dublin VIII: Proceedings of the Friends of Medieval Dublin Symposium 2006,* Pp. 21–35. Dublin. Four Courts Press.
[16] Manning, C. (2009) "A suggested typology for pre-Romanesque stone churches in Ireland", in Edwards, N. [ed] *The Archaeology of the Early Medieval Celtic Church*. Leeds. Maney. Pp. 265-280
[17] O'Keefe, T. (2003) *Romanesque Ireland: architecture and ideology in the twelfth century*. Dublin.
[18] O Carragáin, T. (2010) Churches in Early Medieval Ireland. New Haven & London. Yale University Press. P.239
[19] Most previous authors have noted that once the original doorway in the west gable was blocked-up, access into the church must have been through a doorway in this location.
[20] Burnt debris and metal was noted east of the entrance within the ground cover within the graveyard.
[21] E.g. Pavía & Bolton 2001
[22] Meech, H. [ed] (2001) *Wildlife and Buildings: Technical Guidance for Architects, Builders, Building Managers and Others.* National Trust.
[23] Ferraby, S. (2007) "The ecology of ruin sites", in Ashurst, J. [ed] *Conservation of Ruins.* . London. Elsevier. Pp. 194-210.
[24] Saiz-Jiminez, C. (1997) "Biodeterioration versus biodegradation: the role of microorganisms in the removal of pollutants deposited on historic buildings", International Biodeterioration and Biodegradation, 40(2-4), Pp.225-232
[25] Schiavon, N. (2002) "Biodeterioration of calcareous and granitic building stones in urban environments" in Seigesmun, S., Weiss, T., and Vollbrecht, A., (eds) *Natural Stone, Weathering Phenomena, Conservation Stratgies and Case Studies*. Geological Society Special Publication No. 205. London. Geological Society.
[26] Bolton, J. (2007) "Potential Impacts of Climate Change on the Decay and Soiling of Irish Building Stone". Research project funded under the 2007 Architecture Research Grant Scheme by The Heritage Council.
[27] Noah's Ark (2007) NOAH'S ARK GLOBAL CLIMATE CHANGE IMPACT ON BUILT HERITAGE AND CULTURAL LANDSCAPES - Deliverable 14: Prediction model on the behaviour of the biological cover of building stones in the Mediterranean Basin and its effect on urban and rural building stones (biodeterioration vs bioprotection).
[28] However, there are risks including 'ghosting' and the alteration of the stone surface.
[29] Graffiti is sometimes removed using soap-and-water with a stiff bristle brush; in this case the graffiti is being mechanically abraded away from the surface, which in the case of Dublin Calp limestone would result in the removal of some of the surface of the stone.