

## **The conservation works to the roof and rainwater goods of Kilcarbery house**

**Building Dossier for works done during March and April 2014**

**Date of this report, 2<sup>nd</sup> February 2015**



A view of the front of Kilcarbery house, November 2010.

## **Introduction**

The Environmental Services department, Parks and Landscape Services section of South Dublin County Council wished to carry out critical conservation works to the roofs and cast iron rainwater goods of this building because of serious defects which had developed. The Architectural Services Department of South Dublin County Council (a Grade 2 conservation accredited architectural practice) obtained competitive tenders for the conservation works from competent contractors in September 2013.

This report is a building dossier, a summary of the previous condition of the structure and the conservation works carried out during March and April 2014. The report is intended to be a record of the works for the client or building owner to assist them with the future maintenance and care of the building, to inform future conservators and contractors who will work on the building, and the wider public who may be interested in this building. The report has been issued to the client, South Dublin County Council's Conservation Officer, and the Local Studies Section of South Dublin Libraries in the Tallaght branch. This report also fulfils an obligation under the Safety Health and Welfare (Construction) Regulations 2006 to give the client or Employer a Safety File which includes all information on the works done, risks identified and notes on maintenance. The dossier includes all the relevant information.

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**Architectural Services Department,**  
**South Dublin County Council.**

**2<sup>nd</sup> February 2015**

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Appendix 1. Architectural drawings and roof survey

## Credits

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Building owner & project sponsor:

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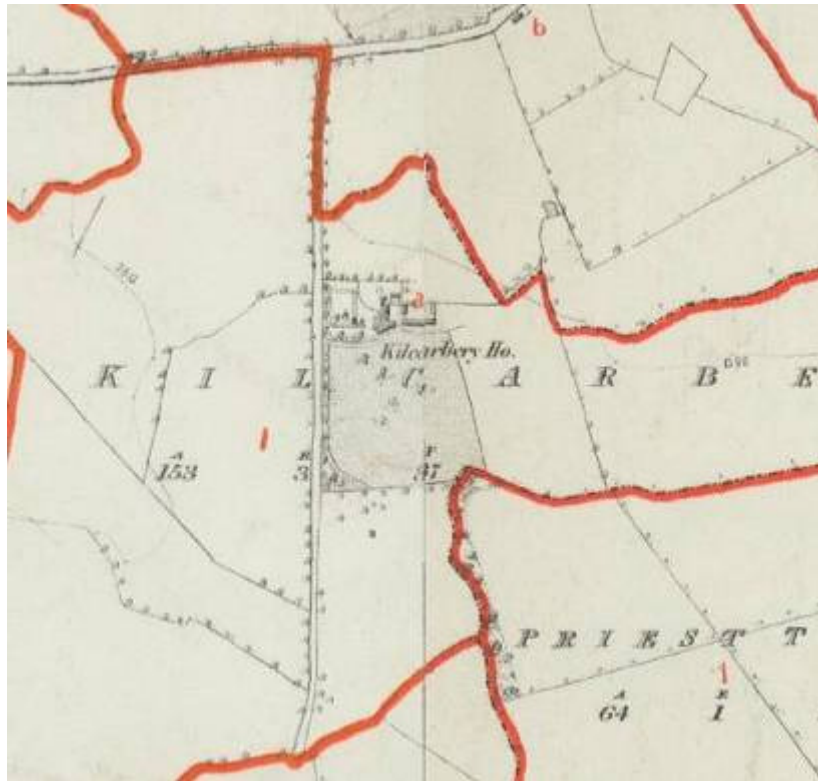
## A description of Kilcarbery house

Kilcarbery House (a.k.a. Kilcarberry) is located on lands to the south of the Nangor Road, about two kilometres west-southwest from Clondalkin village, in the townland of Kilcarbery, the parish of Kilbride and the barony of Newcastle. The ordnance survey grid reference is 304511, 230569 and the sheet number is 3326-A. Kilcarbery House consists of a large house and several stone rubble outbuildings to the rear and to one side of the house arranged around a courtyard. It is situated on flat lands surrounded by a golf course and open countryside. The House is accessed via a formal, tree-lined avenue, running in a north-south direction from the Nangor Road. There is a line of mature lime trees on low banks to the north-east and north-west of the House which are on the townland boundaries of Kilcarbery and Nangor and the historic boundaries of Newcastle and Uppercross baronies. Other fragments of these boundary banks exist elsewhere in the golf course. Parts of the laneway shown on Rocque's map of 1760 survive as a short length of filed boundary in the lands between the House and Nangor Road. The laneway and the physical remains of the boundaries may date from the Anglo-Norman period.

The main house is a detached, three-bay, two-storey house with a projecting, diagonally-set single-storey porch. The walls are of calp limestone, the chimney breasts of brick, all finished with a roughcast lime-based render. Most of the windows are timber sash windows of various dates, some still containing their original glass, with a small number of modern windows at the rear and sides of the main house and some early casement windows with leaded lattice glazing in the returns or rear outbuildings. The main door is a timber panelled door (modern) with Ionic doorcase and radial, elliptical fanlight over.



Kilcarbery House viewed from the south-west & the front façade. Photographed September 2010



Extract from the Primary Valuation of Ireland, also known as the Griffith's Valuation - the map is based on the first Ordnance Survey of Ireland, circa 1843

The basic plan of the main house is two rooms wide and two rooms deep, with a central hall, stairs and landing. The larger principle rooms are lit by large windows in the front façade. The back rooms are smaller and lower in height and are lit by smaller, older sash windows to the sides and rear. The roof of the main house which covers the principle front rooms is a hipped slate roof with a brick chimney stack at either end. The back part of the house is slightly lower than the front and is roofed with a mono-pitch, lean-to, or "catslide" roof (a roof with one side longer than the other, continuing at the same pitch over) which is continuous with the back of the hipped roof. There is a smaller brick chimney stack at either end of this catslide roof. The rooms in the at the back of the main house, kitchen and bedroom above, connect with the rooms in the first return building which probably once accommodated domestic staff in the house.

The outbuilding attached to the east side of the main house is a shed with a roof-space accessed by an external staircase at its gable end. The shed is blank on its south side forming a screen wall to the east side of the house; all openings in its east and north façade face the courtyard.



An aerial view of Kilcarbery House from the south. The modern South Dublin County Council compound is at the top-right of the image. The modern golf club house is just beside and to the west of the house (the image was sourced from [www.bingmaps.com](http://www.bingmaps.com) date not recorded)

There are several rubble stone outbuildings to the rear of the house which are in various states of dilapidation, one roof is covered with corrugated iron, two others with slate and others are no longer roofed at all. The design of some of the outbuildings suggest that they were once used for the storage of corn or grain. This is supported by the presence of some old farm machinery associated with threshing and storage of corn.

The initial inspection was requested because of the dilapidated condition of some of the outbuildings and the presence of mould growth and dampness on the internal walls and ceilings in some rooms in the main house. The mould growth inside the house was the primary generator of the project. Following consideration of the whole house, the client was advised of the defects, their causes, remedies and associated costs. The client was advised to carry out low-cost, small scale maintenance works (painting windows, clearing gutters and gullies, etc.) in future to avoid future occasional significant investment to repair the building fabric.

## **Statement of Significance**

Kilcarbery House is a well-proportioned, attractive late-Georgian country house, beautifully set in the rural landscape of west county Dublin. It has an interesting mix of fenestration and the entrance porch is of unusual design. The house dates from the early nineteenth century, probably around 1810. The main part of the house is occupied as a residence and has been reasonably well maintained. The house has many original period features including a fine staircase, and other joinery and details from later interventions, fire places, sash windows etc.

Kilcarbery House is a Protected Structure; it is referred to in South Dublin County Council's Record of Protected Structures, RPS (Map Ref. 173) under the County Development Plan 2004-2010 - Schedule 2 Record of Protected Structures, referred to as a "House".

The structure is identified in the National Inventory of Architectural Heritage (NIAH) survey of the South Dublin County Area, under Registry Number 11209001. The NIAH rates the structure as being of Regional Rating, and being of architectural, artistic and technical interest.

Kilcarbery House is not protected under the National Monuments Acts.



**The defects which existed and a description of the conservation works carried out**

1) Defective rainwater goods: The cast iron rainwater goods (gutters, rain water down pipes, hoppers, etc.) were blocked in many places, some down pipes and gutters were broken and in other places missing altogether. During one inspection it was raining and sheets of water were flowing down parts of the external walls of the main house from the roof eaves. This caused localised saturation of the walls in these places, washed off the protective lime render and caused visible decay to affected nearby timbers in windows and floors embedded in the nearby walls. This uncontrolled rainwater was the single most destructive agent of decay.

2) Defects in the roof covering of the main house: The roof is the first line of defence between any building and the elements, and a good working roof is crucial to the survival of a historic building. The slate roof covering of the main part of the house had localised cracks in some slates and gaps where slates had slipped slightly and others were missing altogether. Several localised previous patch repairs of the roof covering were noted, probably recent. The defects were admitting moisture to three distinct areas inside the house, which in turn contributed to secondary defects such as mould growth and damage to wall and floor finishes. Some of the structural roof timbers had decayed as a result of prolonged exposure to water.

3) Slated roof of two sheds or outbuildings: The slate roof covering of one of the outbuildings attached to the north side / back of the main house and another to the east of the house is and was seriously defective. Much of the roof structure of the former has collapsed and what remains is partly covered with insecure slates. A wire mesh has been laid over this roof, presumably to contain any slates that may fall or be blown down. This roof is exposed to prevailing westerly winds (and occasional storms) by its isolated, exposed, rural location in the low-lying landscape. The latter was repaired by the recent scope of works. Details are provided below. It is recommended that some action be considered on the former in the near future.

4) Clematis, ivy and other creepers had overgrown around the external walls of the house, eroded some mortar joints, unsettled slates at eaves level, colonised some of the chimneys, blocked gutters and damaged lead dressings. Although some slower growing creepers can look attractive on old houses, it is important that their growth is periodically checked. The damage described above had allowed rain water penetration. Their control is inexpensive and requires little skill. Works were undertaken by the council's own staff resources to cut back the creepers entirely at their base, defrill and poison them. The client has been advised that any future creepers planted around the house should be slow-growing varieties and should be periodically trimmed and maintained.



The east side of the house, the outbuilding to the east of the house and the rere chimney above the east side of the house had been extensively colonised by creepers and ivy, making condition assessment difficult. (Autumn 2010)



The photo on the left shows the eastern hipped roof at the base of the chimney stack before the works. Creepers had blocked the valley and caused visible ponding of water behind the chimney. Right photo: One of the broken joints in the cast iron gutter and a slipped slate above the front of the house. (Autumn 2010)



Two views of the west façade, Autumn 2010. The walls under the small chimney had been saturated by leaking, blocked gutters, which probably has not been helped by the cement render applied over. On the right the sloping gutter along the catslide roof is broken and blocked by mature and woody creepers – all since removed. The wall and window underneath have been saturated and partly decayed as a result.



The gutter under the western hipped roof was completely blocked with clay and mosses. The small, back chimney on the east side of the catslide roof was colonised by creepers



Two views of the porch roof, Autumn 2010. Note the lime mortar fillet at the junction of the wall. Note the blocked gutter. Note the stain in the wall render, the decayed window reveal on one side and the rotten window where the gutter overflows and has saturated the wall.



Left side photo: The northern slope of the roof of the outbuilding to the east of the house is on the left. Right side photo: The stain on the ceiling of the entrance porch

The following works were done during March and April 2014 following the initial poisoning and later removal of the ivy and creeper growth from the façade which allowed for a more thorough examination and careful assessment of the building.

1. All ivy and plant growth was removed from the walls of the main house and from the outbuildings and from the within the interiors of the roofless buildings. This growth was first cut at its base, just above ground level, de-frilled and poisoned so that the upper growth dies back. The dead creeper tendrils were removed several months later when they had died back and dried out.
2. All organic growth was cleaned out of the gutters. All holes or mechanical damage to the gutters or their supporting timbers and iron pins were repaired or replaced as necessary.
3. All gutters, rainwater down pipes and hoppers were taken down, cleaned, shot blasted back to bare metal, re-primed and re-painted before re-assembly. Some of the gutters were replaced where the amount of metal remaining after shot blasting to remove rust left too little metal to make conservation affordable or practical.
4. All the existing gulley traps around the perimeter of the structure were cleared of leaves, mud and years of washed-in debris, to allow normal drainage and to avoid localised saturation of the bases of the walls.
5. Several lead flashings and dressings were renewed and replaced at the junction of the roof and the chimney stacks. A new lead soaker was installed along the junction of the roof over the main house and the catslide roof.
6. The loose and missing or damaged slates were re-fixed or replaced as necessary. The loose or insecure ridge tiles of the roof over main house were re-bedded or re-pointed as necessary.
7. The roof over the outbuilding attached to the east side of the house had many lost, slipped, loose and damaged slates on its roof. This roof had been extensively covered with creepers and plants. In practice the front or southern pitch of this roof was so badly damaged that it had to be almost entirely stripped of its slate roof covering, sound slates tested sorted according to size and damaged slates discarded and re-covered with the salvaged and new material on new slating battens. The rere of northern pitch was repaired locally with new and salvaged material.
8. The crack in the western rere chimney was noticed during opening up works in the left side, rere room. The crack in the chimney was visible after the ceiling was partially taken down to allow for repair to the existing wall plate and bearing ends of the roof rafters in that room. It was repaired by simply filling with a lime mortar.
9. A new lime mortar fillet was placed on the tops of the existing exposed gable walls, flush eaves and barge board details to protect the wall tops and to encourage rain water to drain away.
10. The timber soffit and fascia of the porch with the front door was sanded down and repainted.

11. The timber floor at first floor level of the outbuilding attached to the east side of the house was replaced entirely. The old floor had decayed to such an extent that its retention was not practical. Part of it had collapsed. The decay was caused by a large tree growing up through it and by a large accumulation of old, dried and fresh dog manure on it.

12. Works to the roof above the entrance porch: Several rafter, joists and other structural timbers were cut out from the westernmost of the four pitches on the porch roof above the main entrance and new timber was spliced in. The decay in the existing timbers was only noticed when the slates were removed to install a new lead soaker and mortar fillet at the junction of this roof and the front facade of the house.

13. Works to the roof above the north-western corner of the main hipped roof: the decayed ends of the existing hipped rafter, creeper rafter ends in the vicinity, wall plate and other structural timbers needed to be cut out and replaced. This damage was only apparent after the extensive ivy which covered this area was removed and the dead woody tendrils had been removed.

14. Repairs to the northernmost chimney and mortar of the western façade: Following the removal of the ivy and dead creepers from the western façade of the house, the underlying mortar had in places completely delaminated from the brick wall underneath, leaving an unbonded sheet of mortar which could have fallen from a height. Given its location above a much used footpath between the golf club house and the car park it was decided to immediately take down the mortar and apply a new lime mortar render.

15. The weeds which grew from the top of the adjacent chimney: This indicated that water was gathering on the chimney coping. After closer inspection, the weeds were removed and a new coping was dressed onto the chimney.

16. Works to the roof above the north-western corner of the mono pitch catslide roof: About 1.5 metres of existing decayed wall plate and some slating battens were cut out and replaced from this corner of the mono-pitch, or catslide roof at the back of the house. This damage was only apparent after the extensive ivy which covered this area was removed and the dead woody tendrils had been removed.

17. Underground surface water drainage: Kilcarbery house is not connected to the mains drainage – a common situation in a country house – but there are drains and pipes which run around and under the buildings. However there are no available documentary records of surface or foul water drainage in this area. During the cleaning out of the drains the runs, sizes and extent of the drains were recorded. The gullies behind the house which are outside the back door, or in front of the window to the utility room are routed diagonally north-east across the farmyard. Their eventual destination is not known but may be to the chamber which is covered with a concrete lid in the yard. The gully at the west side of the house, outside the window to the kitchen appears to be connected to the aforementioned gully; its pipe runs under the kitchen diagonally in the direction of the aforementioned gully. The gully at the east side of the house, at the corner junction with the outbuilding appears to run into the ground beneath the house and in the direction of the first gully outside the back door. This is highly unusual that drainage pipes run under the

buildings but appears to be the case here. When rodded and tested the drains flowed clear; no blockages were evident within the pipes. As mentioned previously, the problems were caused by the gullies becoming blocked by accumulated leaves and other wind-blown debris.

A short length of trench (approximately 8 metres) was dug along the east side of the house for two purposes: 1. to establish if there was any underground drainage running south from the latter existing large rain water gully, and 2. to establish if the large crack in the eastern façade of the house (paragraph 4 above) was caused by damage to the foundation and bearing sub soil by a leaking pipe. No drainage pipe was noted and therefore this is probably not the cause of the crack. The crack is discussed later in this report again.

18. The utility room: The utility room in Kilcarbery house is accessed through another room opposite the kitchen. Although the utility room is accessed from within the house, it is actually part of the adjacent outbuilding attached to the east side of the house – probably a former corn shed – refer to the dashed outline of this room on the enclosed plan. This room was not accessible during previous surveys of the house, being locked and out of bounds. Also the upper floor of the corn shed was similarly out of bounds, being in such a dilapidated condition as to be unsafe to walk upon. During the works to the corn shed the ceiling of this room was found to be in a dilapidated condition. An existing “beauty board” finish on the ceiling of the utility room which probably dates from the mid-twentieth century was taken down and a new plasterboard ceiling was built in its place. A large accumulation of dog manure lay above this ceiling. The client and building occupants have been advised of the health hazards of accumulated dog manure so close to an inhabited part of the house.

19. The slates at the top of the mono pitch catslide roof: There was a leak in the junction of the main hipped roof and catslide roof. Works were measured to repair this in the tender. However when the slates were carefully lifted to install the new lead flashing it was noted that the existing slates had been damaged by a previous crudely-done repair at some time in the recent past. Sixteen broken slates had to be removed and replaced.

20. The northernmost chimney above the western façade: The roof behind this chimney was also damaged by the extensive creepers which once colonised this chimney, and the nearby roof and wall. The damage occurred behind the chimney and could only be accessed using a specialist roofer’s ladder. A new lead soaker was dressed into the mortar joints of the chimney and under the slates of the adjacent roof. Several damaged and dislodged slates were replaced.

21. The window openings in the former corn shed: There are small openings in the wall of the upper storey of the corn shed which is attached to the east side of the main body of the house (roof number 4 on the attached drawing). Birds had colonised the upper storey of this building previously. To keep them, bats and other airborne animals out a wire mesh was fitted over the inside of the existing opening.

22. The cast iron rain water goods and soil vent pipes: Measuring the extent of cast iron rainwater goods that need be repaired or replaced was challenging because they had not been regularly maintained (painted) and several sections of gutter and rainwater downpipe had corroded as a result. Also many of the gutters were completely blocked with wind blown debris, moss and leaves which made condition assessment difficult. In the event most of the existing gutters and down pipes could not be refurbished, as had been measured in the tender. Instead they had to be disposed of and replaced with new matching sections. 42 linear metres of new gutter and 27 linear metres of new rainwater downpipe were required. The figure below includes a credit for the existing gutters not needing to be re-furbished.

23. The former corn shed attached to the east side of the house: By the end of the works, 17 existing rafter ends needed to be cut out after a tree was removed from the front facade of the building, the entire wall plate under the southern roof pitch needed to be replaced and approximately half of the existing roof slates needed to be replaced. The junction of the roof with the east faced of the house was re-made with a new lead soaker and lime mortar fillet. As stated previously, the upper floor within the corn shed needed to be removed and disposed of. A new timber floor was built within. The cost of these works were measured and presented to the client previously (e-mail of 4th April).

In the future the following works might be considered by the client:-

1. Carefully take down the fragmentary slate-covered roof of the outbuilding to the north of the house after recording its construction. Salvage as many of the slates for re-use and, if the budget permits, rebuild the roof. Alternatively re-cover with a new galvanized, corrugated sheet, painted with a traditional red or green paint as a temporary holding measure to protect the walls and interiors of the barn below until such time as the roof can or needs to be re-roofed with slate.

2. Cut out any badly damaged sections of timber from the 5 worst affected windows and splice in new durable timber to match the existing section profiles. Sand and scrape all the windows in the house to remove the built up layers of paint and dirt. Carefully loosen the sashes and shutters so that they can operate normally, check all ironmongery and their fixings to the timber, carefully clean, lubricate and reinstate. Replace any missing ironmongery. Repaint these and the other windows. Replace all damaged cords and chains (the 3 ground floor front windows were operated with chains, all others with cotton cord). If the budget permits fit draught-prevention brush strips to the windows.

3. The front door is a recent replacement. If the original door has not been dumped, it should be retained and repaired, sanded down and repainted. The existing lock plate from the old door has been re-used on the new door. This is a valuable and rare piece and should be retained. Sand and scrape away the layers of paint from the fanlight over and repaint as necessary. If the budget permits fit a draught prevention brush strip to the door.

4. Remove any weeds and vegetation and apply a lime mortar flaunching fillet to the upper surface of all exposed walls in the roofless buildings to the north of the house, to protect the underlying masonry from further erosion, weathering and weed colonisation.
5. Re-roof the roofless outbuilding at the northernmost end of the yard with a new galvanized sheet roof as above. The archived photographs of its previous construction and appearance could be used as a reference tool.
6. Re-render the outer facades of the (presently) roofless outbuilding with a new lime render to fill and protect the weathered joints. Photographs show that these buildings were once rendered thus. Also traces of lime render can still be seen on the more sheltered areas of wall.
7. Re-render those damaged areas of the external walls of the main house (where the calp limestone and brick are visible) with a new lime mortar render, also known as a “lime harling”, where the lime render has been washed off the facades by rainwater.
8. Re-render the stone boundary walls and cylindrical gate piers of the yard with a lime mortar render, to fill and protect the weathered joints. Before rendering gather any small pinning stones that may have fallen out onto the long grass below and reinsert them. This item of work could be done by South Dublin County Council's in-house staff.
9. If the budget permits, re-condition the AGA in the kitchen to be fired by natural gas. It is already connected to the original radiators. Remove the modern electrical storage heaters. This intervention is not strictly necessary but would save a lot of energy and money. This intervention would require more design and consideration.
10. The large crack in the eastern façade of the house: There is a serious structural crack in the eastern façade of the house. The crack was in place during the survey in October 2010 and noted in the report prepared from that survey. The cause of the crack has not yet been determined – refer to the test trench mentioned previously in this report. The crack is causing some secondary problems, admitting water which is damaging internal finishes to the rooms inside. As a preliminary measure, the crack was pointed up with a new lime mortar as part of these works. This inexpensive work will stop more water getting in, and may assist in assessing if the crack is moving or getting wider. It is important to note that the cause of the crack is not known and that this lime mortar repair is only a temporary one to prevent immediate deterioration of the internal wall finishes.



## **Conservation philosophy**

The conservation philosophy was drawn mainly from the International Charter for the Conservation and Restoration of Monuments and Sites 1964, a.k.a. The Venice Charter. The works were guided by the principles of minimum intervention, repair rather than replacement, honesty of repair, use of appropriate materials and methods and reversibility of alterations. In summary the following conservation works were carried out:-

As part of the conservation works, the rainwater goods were taken down, refurbished, repainted and reassembled. The gullies were thoroughly cleaned out and rodded clear so they drain properly. The soil in the planting bed adjacent to the main courtroom was removed and replaced with pea gravel to allow water to drain freely away from the wall and to allow it to dry out.

Following completion of these works the external walls of the house wall and their internal finishes are now being allowed to gradually dry out. This will take several years; 1" wall thickness per annum is the rule of thumb. The floor structure beside the wall should be investigated for any rot caused by the dampness. This was not investigated during these works.

## **Conservation Strategy and Method Statement**

The building was surveyed, recorded and the relevant historical documents were researched in the archives as part of South Dublin County Council's Heritage Plan 2011 - 2015. South Dublin County Council has ensured that the works described above are being carried out by a conservation accredited contractor with proven competence in building conservation. All existing significant features such as the roof, the windows and the interiors were protected from accidental mechanical damage and fire during the works.

## **Conservation Impact Assessment**

The proposed works were limited to the localised replacement of lost slates, securing of slipped or loose slates, the partial repair and substantial replacement of the cast iron rainwater goods, and localised minor structural repair to decayed roof timbers.

## **Statutory Protections**

South Dublin County Council's Architectural Services department consulted with the council's Conservation Officer on all aspects of the proposed works. It was considered that the works did not materially affect the character of the Protected Structure and are therefore exempted development, as defined in the Planning and Development Acts.

## **Conclusions**

South Dublin County Council values its existing built heritage and has invested heavily in its building stock during recent years despite the closure of several of the grant schemes which were formerly available. Kilcarbery house is an important local house and popular local landmark by reason of its association with the golf course and is valued by local residents and community groups.

**Photographs of the building taken during the works**



Left: Works to lay a new lead flashing at the junction of the rere roof pitch and catslide roof. Right: Slipped slates along the eastern edge of the catslide roof, April 2014



Left: The severe corrosion in the old rainwater gutters and outlets. Right: The tree trunk after cutting and the hole in the roof slate in the shed attached to the east side of the house. The old plywood sheet floor is also visible. Parts of this floor were not safe to walk on, April 2014.



Left: the collapsing beauty board ceiling in the utility room. Right: The hole in the roof of the in the shed attached to the east side of the house, after cutting and removing the tree, April 2014



Left: The west pitch of the roof above the entrance porch. Right: The kitchen window - severe loss of render resulting from years of rainwater washing down the façade from the failed gutter above, May 2014



Left: The crack in the rere chimney, west side of roof, viewed from a hole in the ceiling of the rere west bedroom. Right: The new floor in the shed attached to the east side of the house, May 2014.



Left: The opening up works to the sloped ceiling of the rere west bedroom. Severe structural damage resulting from decay was evident in the rafters and slating battens. Note the stains on the adjacent gypsum plasterboard ceiling. Right: New cast iron rain water down pipe and hopper at the junction of the house and the shed attached to its east side, May 2014.



Left: The post and beam supporting the new floor joists above the entrance to the shed attached to the east side of the house. Right: The same detail viewed from within the shed, May 2014



The front, south-facing roof pitch of the shed attached to the east side of the house. Note the new rafters bolted onto the existing rafters to reinforce them and the new wall plate. Right: another view, May 2014

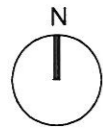


Left: New wall plate and tilting fillet at the base of the roof. Right: The repaired shed.

**Photographs of the building taken after completion of the works**



Moisture content readings of the bearing ends of roof rafters at the lower end of the rear bedroom and catslide roof, taken in November 2014, six months after completion of the works. The tests showed a reduction in moisture content in the timbers and that the timbers are slowly drying out.



ROOF OVER RETURN  
(ROOF NO. 3)

CATSLIDE ROOF OVER  
HOUSE (ROOF NO. 2)

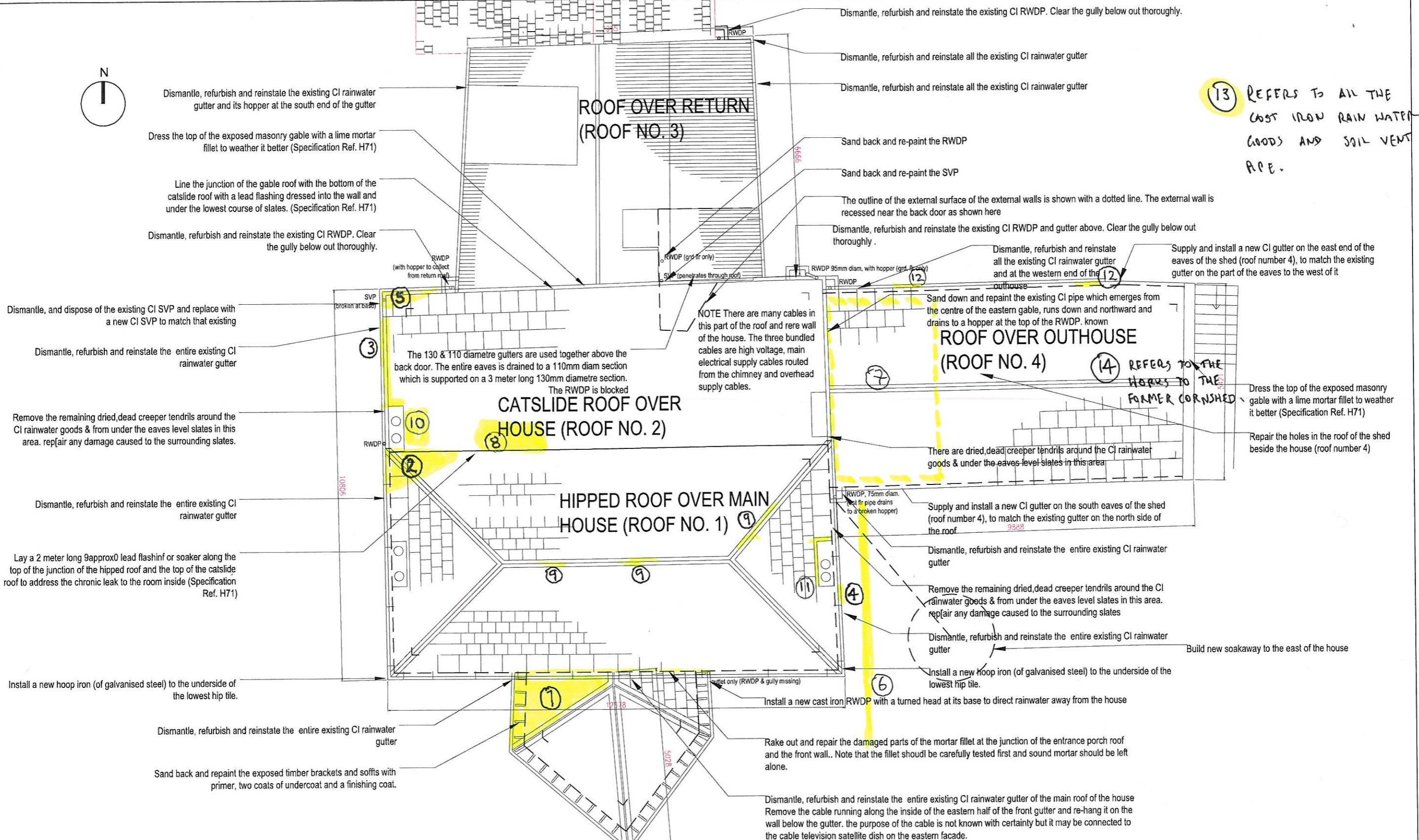
HIPPED ROOF OVER MAIN  
HOUSE (ROOF NO. 1)

ROOF OVER ENTRANCE  
PORCH (ROOF NO. 5)

ROOF OVER OUTHOUSE  
(ROOF NO. 4)


13 REFERS TO ALL THE  
LOST IRON RAIN WATER  
GOODS AND SOIL VENT  
PIPE.

14 REFERS TO THE  
HOLES TO THE  
FORMER CORNISHED



**SUMMARY OF THE PROPOSED WORKS**  
To be read in conjunction with the specification

**ROOF PLAN**  
SCALE 1:100

 <p>ARCHITECTS' DEPARTMENT, COUNTY HALL, TALLAGHT, DUBLIN 24 TEL: 01-414 9000, FAX: 01-414 9209</p> <p>COUNTY ARCHITECT EDDIE CONROY, B.Arch, M.Sc.Arch, F.R.A.</p>			SCALE: 1:100	PROJECT TITLE: KILCABERY HOUSE, CONSERVATION WORKS TO THE ROOF AND RAINWATER GOODS	DRAWING NO:	REV.
	No.	DATE	DATE: JULY 2012	DRAWING TITLE: PLAN OF ROOF. SUMMARY OF PROPOSED WORKS	10020_T04	
			DRAWN: FÓS	SENIOR ARCHITECT: PATRICK DE ROE	PROJECT ARCHITECT: FEARGAL Ó SÚILLEABHÁIN	





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<b>Purpose of survey:</b> A survey of the roof and rainwater goods of Kilcarbery House <b>Property Address:</b> Kilcarbery House, off the Nangor Road, Kilcarbery, Co. Dublin <b>Project Reference:</b> 10020	<b>Client's Name:</b> Parks and Landscape Services Section of the Environmental Services department of South Dublin County Council	<b>Date of Survey:</b> 13 / 06 / 2012 <b>Date of this report:</b> 19 / 06 / 2012 <b>Surveyor:</b> Feargal Ó Súilleabháin, Architect
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Location of building / roof in relation to main building:	Roof above the main block of house (Roof No. 1)	Cat slide roof to the north of main block of house (Roof No. 2)	Roof above return to the north of the house (Roof No. 3)	Roof above outhouses to the east of the house (Roof No. 4)	Roof above main entrance porch (Roof No. 5)
<b>Approximate date of building / roof:</b>	circa 1810	circa 1810	Corrig. steel roof covering, circa early 20 c.	circa 1810	circa 1810
<b>Type of roof and pitch / slope:</b>	Hipped. Approx 38°	Cat slide mono pitch, continuous with the northern pitch of the main roof. Approx 20°	Double pitched, sprocketed eaves to east side, gable wall at south end. Approx 45°	Double pitched, gabled. Approx 30°	Hipped roof, an unusual and distinctive lozenge shape. Approx 22°
<b>Area on flat (sq.m.):</b>	81 sq.m.	54 sq.m.	55 sq.m.	54 sq.m.	19 sq.m.
<b>Area on plane of slope (sq.m.):</b>	106 sq.m.	56 sq.m.	75 sq.m.	64 sq.m.	20 sq.m.

ROOF FEATURES:					
<b>Chimneys:</b>	2 chimneys, 1 at centre of east and west gable ends, of brown brick with slate cloak and brick caps and ornamental pots	2 chimneys, 1 at SE and SW corner of roof, similar to chimneys on main roof but narrower. Eastern chimney has no pots	none	none	none
<b>Ridge:</b>	Brown, plain terracotta tiles	none	"Broom handle" profiled galvanis steel sheet	Brown, plain terracotta tiles	Broom handle(lead rolls over timber formers)
<b>Hips:</b>	Brown, plain terracotta tiles with wrought iron straps to end (some straps missing)	none	none	none	Broom handle(lead rolls over timber formers)
<b>Valleys:</b>	Lead sheet to small valleys to chimneys	Valley at base of west end – lead sheet	none	none	none
<b>Abutment / gable:</b>	none	none	Slate covered gable to south end, mortar fillet to abutment with gable wall to north	Abutment with east wall of main house: vertical slate bedded in mortar fillet.	Abutment with front wall of main house: mortar fillet weathers the junction
<b>Roof lights, roof vents, dormers:</b>	none	none	Dormer to west, recessed window to east	none	none

ROOF SLOPE & PERIMETRE:					
<b>Original / non-original:</b>	Probably original	Probably original	Steep pitch suggests it was once thatched	Probably original	Probably original
<b>Condition:</b>	Good, few slipped slates & loose ridge tiles	Good, few slipped slates (esp at main roof)	Paint weathered & steel corroding	Poor; Deflection of timbers, slipped slates	Good, no defect noted except in mortar fillet
<b>Type of slate / roof covering:</b>	Natural slate,	Natural slate, probably from Penrhyn	Corrugated galvanised steel sheet	Natural slate, probably from Penrhyn NOTE Some "artificial" slate at east verge	Natural slate, probably from Penrhyn
<b>Coursing:</b>	300mm to smaller slates above eaves level		2 sheets on steep pitch, 1 to sprocket pitch		300mm gauge, 8 courses on east pitch
<b>Size of slate:</b>	Large slates at eaves, 600 – 670mm wide Smaller slates above to roof, 380mm wide	500mm wide x 590 long slates	N / A	500mm wide & 600mm long at eaves, 300mm wide & 470mm long above	470mm wide
<b>Colour of slate:</b>	Grey-green, grey-blue	Grey-purple	N / A	Grey-purple	
<b>Texture of slate:</b>		Matt	N / A	Matt	Matt
<b>Parging or membrane:</b>	Parging visible in attic, no defect noted*	Not known – no access to roof space	Not known – no access to roof space	Not known – no access to roof space	Not known – no access to roof space
<b>Eaves / parapet detail:</b>	Flush eaves, with corbelled brick course on top of wall	Flush verges at east and west ends. Flush eaves, with corbelled brick course on top.	Sprocketed eaves to east pitch, simple overhang of metal roof covering at eaves.	Flush eaves with slate over bedded in mortar	Overhanging eaves supported by timber brackets and soffit.

RAINWATER GOODS:					
<b>Material and components</b>	Cast iron, 1 RWDP to drain roof	Cast iron	Cast iron	Cast iron	Cast iron
<b>Size and shape</b>	130mm wide, 55mm deep gutters pinned to corbelled brick course. 75mm diam RWDPs	Gutters pinned to eaves brick course. Both 110mm & 130mm wide gutters used together. 95 mm diam RWDP	130mm wide, 55mm deep gutter, pinned to underside of eaves	110mm wide, 45mm deep gutter	110mm wide, 45mm deep gutter
<b>Original / non-original:</b>	Probably original	Probably original, gutter to rere repaired in the past	Probably original	Probably original	Probably original

<b>Condition:</b>	Gutters clear on south / front façade only but paint weathered, distorted and joints open. RWDP at east façade loose from wall	Gutter partly blocked with debris & sludge, distorted and millscale. Large & small sections of gutter used together to rere	Gutter completely blocked with debris, distorted and millscale. RWDP missing	Gutter partly distorted, paint weathered and millscale corrosion evident. Gutter completely blocked. 2.5 m length of gutter missing from east end of north pitch. Gutter missing from entire southern pitch	Gutters clear but distorted, paint weathered, RWDP missing below outlet from gutter.
<b>OTHER COMMENTS / ADDITIONAL NOTES:</b>					
Generally the roofs were surveyed locally; the entire roofs were not surveyed. The survey was made on a ladder from eaves level and those areas visible from there  NB There are electrical cables on the rere or northern pitch of the roof over the house	* from inspection of 22.09.2010.  Hook iron in SW corner too short and in SE corner its missing altogether. Lowest or end hip tile at SE corner is loose where mortar bedding has failed.	Structural appraisal not possible.  Gutter sections of differing size have been combined and used together during a previous botched repair above the back door, causing severe saturation of the adjacent wall	Structural appraisal not possible.  Steel roof covering probably not original. There may still be or have been a thatch underneath.  SVP broken at base of west wall of house	Approx. 15 slipped slates on north pitch.  Weeds have colonised the flush verges and tops of walls at eaves of south pitch.  Structural appraisal not possible.	Structural appraisal not possible. RWDP missing from outlet from gutter  Socket / spigot joint noted between gutter sections

## Maintenance schedule

The table below shows how the building might be easily inspected and maintained by an ordinary person without any expertise in building conservation or maintenance and without any need for specialist equipment.

Building element	Description	Recommended maintenance	Regularity of maintenance	Comments
Roof structure and covering	Tile covered pitched roofs	Visual inspection of tiles, lead flashings & mortar with binoculars from ground level.	Once a year ideally at the same time each year.	Take photos of any damage or fault identified, for comparison purposes
Chimneys and vents	Brick chimneys above the former robbing room and the courtroom	Monitor for any cracking & mortar erosion and organic colonisation	Once a year ideally after winter	
Rainwater goods	Cast iron rainwater gutters and down pipes. Also inspect the cast iron soil vent pipe	Clear out debris, twigs, leaves and dead birds from gutters and check that they are securely fixed. Clean out debris from gullies <sup>19</sup>	At least once a year, ideally after leaf fall, at the end of November	This maintenance is particularly important. Check also after any very heavy rainfall or snow
Windows and doors	Timber framed casement and sash windows	Check operation and condition of frames, putty, glazing and paint	At least once a year, ideally in late winter	
Services	Emergency lighting, alarm systems, etc.	Check operation and condition (visual only) <sup>20</sup>	Log books to be updated quarterly.	Quarterly
Others	Identify and note any defects, damage or problems in the building. Remove any rubbish, debris or waste from the site. Kill and remove any vegetation growing in or next to the building. Refer to manufacturer's instructions of any systems or mechanical fittings			

<sup>19</sup> NOTE Broken glass and used hypodermic syringes can be found in drainage gullies, so manually clearing them out should only be done with a suitably resistant glove.

<sup>20</sup> Electrical systems should be checked by a qualified person at least once every 5 years.