

ST CATHERINE'S COURT  
ST CATHERINE  
BATH



DESIGN, ACCESS AND HERITAGE STATEMENT  
IN SUPPORT OF PLANNING SUBMISSION

**DESIGN, ACCESS AND HERITAGE STATEMENT  
IN SUPPORT OF PLANNING SUBMISSION**

CONTENTS:	PAGE:
1.0 INTRODUCTION	2
2.0 SCOPE OF STATEMENT	3
3.0 THE PROPOSED SCHEME	5
4.0 PLANNING HISTORY	12
5.0 HERITAGE STATEMENT	13
6.0 SUMMARY OF HERITAGE ASSETS AND THEIR SETTINGS AFFECTED BY THE PROPOSAL	14
7.0 SUMMARY EVALUATION OF SIGNIFICANCE	15
8.0 IMPACT OF THE CHANGES OF SIGNIFICANCE	20
9.0 CONCLUSION	21
10.0 ACKNOWLEDGEMENTS	21
<b><u>APPENDICES</u></b>	
APPENDIX I SUMMARY OF LIST ENTRIES	22
APPENDIX II VOLUME CALCULATION COMPARISONS	26
APPENDIX III GLAZING AREA CALCULATION COMPARISONS	28
APPENDIX IV INDICATIVE EXTERNAL LUMINARY EXAMPLE	31

Revised 17/12/15

## 1.00 INTRODUCTION

- 1.01 St Catherine's Court comprises a collection of buildings and gardens set around the nucleus of St Catherine's Court, a large, many gabled, stone manor house with associated church and tithe barn. The site has 14<sup>th</sup> century origins, with significant phases of development in the 17<sup>th</sup>, 19<sup>th</sup> and early 20<sup>th</sup> centuries, at which times the works to the house and gardens were closely linked. The group are situated on the lower east facing slope of St Catherine's valley some 6km north of Batheaston.
- 1.02 The Court is Grade I listed with the church, barn and other structures, including tomb Memorials, walls, gates and piers included in the statutory list as Grade II\*. The immediate gardens and wider parkland to the south and east are a Grade II\* Registered Landscape and the site is included within the Cotswold Area of Outstanding Natural Beauty and Green Belt.
- 1.03 To the west of the Court, the land rises up the valley slope and, from the 17<sup>th</sup> century onwards, has been incorporated into a series of stepped gardens aligned with the northwest south east orientation of the manor. This area of the Registered Landscape is referred to in this document as the western terraces, whilst the area that forms the subject of this and previous submissions is referred to as the orchard terrace.
- 1.04 In 2012 and 2010, applications for Planning (09/0376796/FUL - revised) and Listed Building Consent (09/03801/LBA revised) were approved for the erection of a new swimming pool building with associated spa and gym facilities to the northern side of one of these higher terraced levels overlooking the house. These consents are referred to in throughout this statement as the 2009 consented scheme. The Approval included for the partial excavation of the existing sloping form of the terrace to create a lower, level plateau and re-grading of adjacent slopes to integrate the resultant basin within the surrounding higher land form. A new central flight of stairs replaced the grassed slope to provide access between the new lowered ground and existing upper tier slopes.
- 1.05 Johnston Cave Associates have been approached by the owners to examine the possibility of modifying the approved scheme, in particular seeking a more compact and functionally resolved building. In undertaking this work, and the process of evaluation and understanding the significance of this important site, the potential form of the building has evolved to address its relationship within, and architectural response to, the historic gardens and setting of the Grade I house. In developing this response, the scheme has drawn on the detailed historic assessment of the development and significance of the gardens and buildings by McLaughlin Ross LLP, and the consultation responses and discussions with Officers and other parties which informed the evolution of the approved scheme.
- 1.06 The proposals for the revised pool scheme and associated landscaping form the basis of this Design, Access and Heritage Statement. A summary of the key areas of difference from the approved submission are summarised in paragraph 3.04.

## 2.00 SCOPE OF THE STATEMENT

2.01 This Statement has been prepared as a combined Heritage Statement and Design and Access Statement in support of the planning application to explore this opportunity to refine and review the approved scheme. The principle of a new building of this size, use, and position in the garden has been established by virtue of the extant permissions, as has the architectural language that informs the articulation of the external elevations. An Arboricultural Method Statement (October 2012) and Tree Protection Plan (12 October 2012) has been submitted and approved by the LPA (Application Reference No. 12/04647/COND Approved 03/012/12). The proposed revisions have been designed to make no change this agreed strategy.

2.02 The Conservation Officer consultation cited in the Feb 2010 Committee Report noted the following in this respect:

*“The area of garden identified for the location of the swimming pool lies in an area beyond the existing formal gardens, located directly beneath the plunge pool, which was introduced in the 1930’s. This area has been utilised for cultivation for many years and is currently given over to an apple orchard.*

*The design of the new build borrows from existing historic detailing which is pertinent to the evolution of the estate whilst also minimising the impact on the existing surroundings. In this context it is considered that the proposal does not have a detrimental impact on the registered park and garden and the setting of the court house and the neighbouring buildings.”*

2.03 This statement does not therefore intend to revisit the planning arguments in respect of development, or question the detailed historical assessment of the designated heritage assets and their individual and combined settings which encompass St Catherine’s Court as a group.

2.04 It will however focus on the changes proposed from the approved scheme, explore the reasons for these changes, and assess the effects of the new development on the nature and extent of the significance of the heritage assets affected

2.05 A statement in substantially the same format as this was submitted to Bath and North East Somerset Council as part of a pre-submission application together with the drawings referred to at paragraph 3.01. A meeting was held at the Court on 17<sup>th</sup> September 2015. Present were Suzanne D’Arcy on behalf of the Council and Caroline Power on behalf of Historic England. The council responded to the proposals positively. Their letter of 14 October stated:

*“The proposed building will be sited in a less significant area of the garden but it is considered that it is a major structure in the registered historic landscape. The garden design clearly links with the house throughout the centuries.*

*There is no objection to the revised scheme design of the building as it has been modified to take into account views from the terrace. The introduction of garden features, such as the grotto is welcomed as this will provide an addition to the main central axis of the garden, allowing a visual connection to the oriel window of the main house. It would be interesting to investigate the possibility of opening up vistas and glimpses of the new structure within the garden that have been lost.”*

As a result of this endorsement, the same scheme has been submitted for approval by way of planning permission as was submitted for pre-application approval.

2.06 The pre-application meeting also addressed the impact of the building on the local ecology and in particular the flight pattern of bats across the site of the spa building. The design of the building has substantially addressed this issue by the removal of fenestration from the northern façade. This has not entirely eliminated the problem as there will still be light spill from the windows at the northern end of the eastern façade. This has been addressed by the proposed introduction of a short section of temporary screen, to be formed by a close boarded timber fence to remain until long term planting barrier is established. The long term light spill barrier will follow the existing hedge bank line with reinforced planting of native woody species. Both options are shown on Drawings A3-55 P1 (Light Spill Barrier Plans) and A3-56 P1 (Light Spill Barrier Elevations). Like all soft landscaping matters, it is anticipated that it will be the subject of a condition after consultation with appropriate officers.

### 3.00 THE PROPOSED SCHEME

#### Overview

3.01 This Statement should be read in conjunction with the following drawings prepared by Johnston Cave Associates, all pre-fixed 2480:

A3-12 P3 Existing Location Plan	A3-33 P3 Tree Protection Plan
A3-13 P2 Existing Site Plan Sheet 1/2	A3-40-43 Existing Photographs
A3-13A P1 Existing Site Plan Sheet 2/2	A3-44-46 3D View Sheets
A3-14 P3 Proposed Site Plan Sheet 1/2	A3-47-51 Physical Model
A3-14A P1 Proposed Site Plan Sheet 2/2	A3-52–54 Photo Scaffolding Comparison 2009-2015
A3-15 P3 Proposed Roof Plan	A3-55 P1 Light Spill Barrier, Short & Long Term Solution Plans
A3-16 P2 Proposed Ground Floor Plan	A3-56 P1 Light Spill Barrier, Short & Long Term Solution Elevations
A3-17 P3 Proposed Basement Plan	A3-57 P1 Grotto Water Feature Precedent & Sketches
A3-18 P3 Proposed South-East Elevation	A3-58 P1 Proposed Grotto Water Feature
A3-19 P3 Proposed Sectional Elevation E-E (Basement omitted for clarity)	A3-60 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal at Roof Level
A3-20 P3 Proposed Sectional Elevation E-E	A3-61 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal at Ground Floor Level
A3-21 P3 Proposed North-East Elevation	A3-62 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal at Basement Level
A3-22 P3 Proposed North-West Elevation	A3-63 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal : South East Elevations
A3-23 P3 Proposed Section D-D	A3-64 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal :North East Elevations
A3-24 P3 Proposed Section C-C	A3-65 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal : North West Elevations
A3-25 P3 Proposed Section A-A	A3-66 P2 Comparison 2009 Consented Scheme & 2015 JCA Proposal : South West Elevations
A3-26 P3 Proposed Long South-East Elevation	
A3-27 P3 Proposed Long Sectional Elevation SE	
A3-28 P3 Proposed Long NE Elevation	
A3-29 P3 Proposed Long NW Elevation	
A3-30 P3 Proposed Long Section D-D	
A3-31 P3 Proposed Long Section C-C	
A3-32 P3 Proposed Long Section A-A	

3.02 In addition, it makes reference to the following drawings and information forming part of the approved applications (09/0376796/FUL – revised and 09/03801/LBA revised):

- Drawings by Martin Parish Associates-  
1265/20,21,22,100.103A,105A,106 received Oct 2009; 1256/101B, 102B,104B received  
21 jan 2010; 1256/108,283/SPA/LP01/TS received 28 Jan 2010
- Reports and archive information by McLaughlin Ross LLP -  
St Catherine’s Court, St Catherine, Bath, BA1 8HA Part 1 Heritage Statement and Part 2  
Design and Access Statement Oct 2008; Historic Building Report on the Gardens of St  
Catherine’s Court, St Catherine, Bath March 2009
- Graham Gover Solicitor : Planning and Policy Statement Oct 2009.

3.03 There are two key, interrelated strands underpinning the revision of the approved scheme. Firstly to seek a more sympathetic and integrated visual and historic relationship between the built forms proposed and that of the special historic character and appearance of landscaped garden, and secondly, within this context to refine the pool building in its form and functionality. In doing so, the approach has been to draw on its particular evidential, historic and aesthetic significance in the context of the Grade I house, and both its designed garden and wider landscape setting. This relationship between design and analysis of significance is detailed in the Heritage Statement section of this Statement.

3.04 **Summary of key Differences between the 2009 Consented Scheme and 2015 JCA Proposals**

Please refer to the comparison drawings of the two schemes submitted as part of the application (2480 A3 60-66), Appendix II Volume Comparisons and Appendix III Glazing Area Comparisons.

- The proposed pool building has a 20% smaller footprint at basement level than the approved scheme. The proposed scheme has an above-ground reduction in width by 2.17m (northwest and southeast flank elevations).
- The proposed and approved pool buildings occupy the same ground floor position on their southeast, northeast, and southwest elevations, with the reduction in width affording a greater setting to the northwest.
- The overall building height from finished floor level of the ground floor to top of parapet has been increased by 0.778 m. The ground floor to roof terrace dimension has increased by 0.528m. (Dimensions taken correspond with those given as part of the original submission Planning and Policy Statement Appendix I table: Revised Submission and Appendix II of this Statement).
- The front (south east) elevation has been redesigned with a central tripartite loggia in contrast to the approved ambulatory feature.
- The proposed scheme has a roof top terrace garden with access from the surrounding landscaped gardens. Two small oculus lights are proposed. The approved scheme had four glazed roof lanterns and no access.
- The proposed scheme has a curvilinear stair to a balcony and grotto with water feature; the form of the stair is designed to help moderate the transition in ground levels across the site. The approved scheme had a separate axial stair and steeply profiled banked lawns.
- The JCA scheme has been designed to ensure the 17<sup>th</sup> century spring head feature, low stone wall and their immediate environs will be undisturbed. The approved scheme cut back ground and regraded the site sharply from the footing of the historic wall to the lower retaining elevation (southwest).
- The northwest elevation is now blind with no glazing.
- The glazing line of the proposed windows to the two remaining fenestrated elevations has been extended down to run through at ground floor level.
- The proposed scheme has a service stair added to the northwest elevation.



- The area under the service stair unobtrusively screens all extracts and vents from the service/pump room which is located below. The approved scheme had no identified provision for extracts and vents, the pump room was located in the area of the basement under the ambulatory.
- The proposed scheme incorporates an escape stair from the basement which is planned to arrive in the grotto. The approved scheme has no second means of escape from the basement (Ref Building Control Consultation concerns 14.10.2009).
- The overall glazing area has been significantly reduced.

### 3.05 Design Rationale of the 2015 JCA Pre- Application Scheme

- To respect and maintain the key central axis, but more subtly allude to the viewer, as at present, and more notably in the past, the presence of a garden room to explore as a partially hidden but intermediate space (Fig. 1 Please also refer to Fig 26 in Historic Report on Gardens of St Catherine's Court by McLaughlin Ross LLP for a view of the gardens c1900).

The scheme therefore seeks to retain the position of the north east return corner and the key position of the south east flank elevation set back parallel from the northeast/south west axis of the central vista through the garden to the upper terrace.



*Fig.1 View from the entrance front, the photograph illustrates the visual presence of the garden room in the middle ground and alludes to the hidden compartment screened by the trees*

- The aim is to retain the character of the space as distinct from the formal gardens to the lower terraces, but to create a space with an overall integrity of form and design that harmonises the relationship of the building and its setting as a destination beyond the simplicity of the axial view.



- iii. The intention is to maintain the purpose and historic intent of the framed dynamic vista south eastwards, but introduce a belvedere and grotto below the steps to the upper terrace from which to reflect back on the framed entrance porch and formal gardens of the court below (Fig.2).



*Fig.2 View from the orchard terrace towards the Entrance Front*

- iv. For this belvedere and grotto to add curiosity and interest as part of the enrichment of the garden, whilst maintaining the dynamic axial quality of the vista onwards towards the 1920's upper terrace extension.
- v. Within the garden space, to better moderate the "axial imbalance" identified by English Heritage (English Heritage letter 17<sup>th</sup> November 2009) to create less of a skewed character by using the stair as a device to modulate the transition and draw together the physical and visual forms of informal, sloping garden and Building (Figs.3 and 4). In doing so, also drawing on precedents of other garden elements where changes in level and character have been resolved, rather than accentuated:



*Figs.3 and 4 curvilinear paths adjacent to the Orchard and forming a designed part of the informal wilderness gardens*

- As part of the treatment of the space, its function, circulation and perception as a whole, to conserve the historic water feature of this upper section of the terrace and its historic integrity with the historic boundary stone wall and adjacent land form levels (Fig 4).
- A new water feature within the grotto has been introduced. If possible this will be fed by the above spring head. The integration of and management of water within and around the garden is an essential part of the spirit of the gardens and of St Catherine's. The proposed Grotto water feature is intended to reflect and celebrate this historic relationship. Indeed, the design draws both on existing features on the site and on the rustic language of Eighteenth Century Grottos, most notably advocated by William Kent. Key stylistic references and suggested form are detailed on Drawings 2480 A3-47 and 58. The inclusion of this element within the grotto developed on site as part of the pre-application discussion with Historic England and forms part of a wider approach to the Conservation and Management of the Historic Landscape and its features.
- The curvilinear form of the new axial stair takes its precedent from the existing paths that wind through the informal wilderness gardens which link the Orchard into the wider landscape to the west (Fig.3).
- The previous scheme had proposed that the bank be sharply cut back to the historic wall and steeply regraded as shown on the sectional drawings 1265 103 A. It is not clear how the existing features were to be retained. The proposal sets the building away from the historic elements and retains the immediate surrounding ground levels (figs 4 and 5).



*Fig.5 View from the upper terrace steps across the Orchard towards the house*

- The integration of the pool building into the landscape, particularly when viewed from the upper outdoor pool terrace is a key concern. The proposed scheme incorporates horizontal access via the belvedere to the new roof terrace garden, and more restrained impact of the roof form with simple, traditional lead rolled roof with small hidden clerestory windows in contrast to the previous glazed lanterns. In addition, the building is designed to sit discretely below the level of the grass path buffer to the water feature with no visible balustrade along this south eastern abutment in views from the terrace above. The former arrangement had again been identified as an area of concern by English Heritage “.. however we consider that the roof design does not appear to take account of potential views from the upper existing plunge pool terrace above. The view of a large expanse of glass and lead would read as an alien feature within the garden. If the roof was designed as a terrace this could improve its visual appearance.” (English Heritage letter 17<sup>th</sup> November 2009).
  - In addressing these elements of design, landform and significance, the height of the building has necessarily been modestly raised by an overall increase of 0.778m.
- vi. To better relate the architectural expression and articulation of the proposed buildings to the existing features that prevail at St Catherine’s Court, and in particular the tripartite Doric order orangery entrance on the south side of the Court (Fig. 6) the Doric loggia under the earlier cantilevered Drawing Room window on the south side of St Catherine’s Court (Fig. 7), and the east front entrance to the Court (Fig. 8). In doing so, to use the recessed loggia entrance as a device to express the relationship of the pool building with its site context and to give rationale and meaning to the siting and form of the stair.



*Fig. 6 Doric order Orangery on the south side of St Catharine’s Court*



*Fig. 7 The Doric order Loggia under the earlier cantilevered drawing room window  
(Reproduced with kind permission of McLaughlin Ross IIP Historic Building Report page 26)*



*Fig.8 The east entrance of St Catherine’s Court  
(Reproduced with kind permission of McLaughlin Ross IIP Historic Gardens Report page 53)*

- vii. Reduce the foot print of the building: the overall width of the pool building has been reduced by bay width (2.17m) whilst the basement foot print has been reduced by 20%.
- viii. Reduction of the impact in the landscape in views from the north-west, and overall light pollution with the introduction of a solid flank wall un-punctuated by glazing but nevertheless articulated by pilasters and details consistent with the other elevations.
- ix. To reduce the visual impact of the building at night in its rural setting and to minimise the detrimental impact of light pollution on native species. Based on assumption that the undrawn fenestration of the southeast elevation into the ambulatory was intended to match that of the other elevations, the area of glazing has been reduced by 72% between the two schemes. Night time lighting of the path between the Court and the proposed pool building will also be discrete and minimal. Details of flush ground level luminary sets accompany the Statement in Appendix IV and an indicative arrangement is noted on drawings 2480 A3-15 and 16..
- x. The approved scheme did not address several key design elements in respect of the operation and mechanics of the pool and spa function. These included no detailed information on the external position of vents and extracts, or their relationship to the position of the pump and service room which is situated under the ambulatory on the approved scheme. In addition the approved scheme made no provision for independent service or compliant means of escape from the inner rooms of the basement. This was noted by building control in their consultation response 14<sup>th</sup> October 2015. These do however have an implicit impact on the design and appearance of the building and their incorporation into the layout and arrangement of the scheme forms part of the pre application changes to the design. In particular the mechanical services are positioned to the rear (northwest) corner of the building allowing all external vents to be unobtrusively and discretely positioned onto the new service stair. The basement rooms now have an independent, compliant means of escape stair which is planned so as to arrive within the grotto and not to diminish the architectural integrity of the pool buildings.



#### 4.00 PLANNING HISTORY

- 4.01 09/03796/FUL – Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – PERMIT – 8<sup>th</sup> August 2012.
- 4.02 09/03801/LBA – Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – CONSENT – 3<sup>rd</sup> February 2010.
- 4.03 12/04103/COND – Discharge of condition 7 of application 09/03796/FUL (Erection of building to house swimming pool, gym etc. in the grounds west of St Catherine’s Court (Revised Resubmission) – CONDITION DISCHARGED.
- 4.04 12/04647/COND – Discharge of condition 3 of application 09/03796/FUL (Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – CONDITION DISCHARGED.
- 4.05 12/04856/COND – Discharge of conditions 8 and 9 of application 09/03796/FUL (Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – CONDITION DISCHARGED.
- 4.06 12/04868/COND – Discharge of condition 10 of application 09/03796/FUL (Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – CONDITION DISCHARGED.
- 4.07 12/04885/COND – Discharge of conditions 2 and 6 of application 09/03796/FUL (Erection of building to house swimming pool, gym etc. in grounds west of St Catherine’s Court (Revised Resubmission) – CONDITION DISCHARGED.
- 4.08 12/05373/COND – Discharge of condition 2 of application number 12/03053/FUL (Restoration of kitchen garden and reconstruction of garden outbuilding).
- 4.09 12/05374/COND – Discharge of condition 5 of application number 12/02811/LBA (Restoration of kitchen garden and reconstruction of garden outbuilding) – CONDITION DISCHARGED.
- 4.10 13/00555/CLPU – Application of Lawfulness for a Proposed Development – LAWFUL.  
The Development of St Catherine’s Court in accordance with 09/03796/FUL and 09/03801/LBA having made a material start within S56(4)(b) of the Town and Country Planning Act 1990, as amended (Certificate of Lawfulness for a Proposed Development).

## 5.00 HERITAGE STATEMENT

- 5.01 The approach of allowing the design process to evolve from a sound understanding of significance accords with the good practice advocated in documents such as English Heritage's *Conservation Principles* (2008) (still approved guidance by Historic England at the date of this Statement), Historic England Good Practice Advice in Planning Note 2 - Managing significance in decision taking in the historic environment and the National Planning Policy Framework (NPPF) and National Planning Policy Guidance (NPPG). In addition, this Statement makes particular reference to the advice and methodology advocated in the Historic England Good Practice Advice in Planning Note 3 - The Setting of Heritage Assets - in which such analysis is proposed as a framework to "maximising enhancement and avoiding or minimising harm".
- 5.02 It is noted that Policies BH.2 and BH.9 are both "saved" policies from Bath and North East Somerset Local Plan 2001 and are still used in conjunction with policies in the core strategy until replaced through the Placemaking Plan when adopted. These are:
- POLICY BH.2 Development affecting a listed building or its setting will only be permitted where it would: i) preserve the building's special architectural or historic interest; ii) preserve any feature of special architectural or historic interest which the building may possess; iii) retain the historic form and structural integrity of the building; iv) respect the character of the building in terms of scale, style, design and materials; and v) not adversely affect the building's contribution to the local scene including its role as part of an architectural composition.
  - POLICY BH.9 Development which adversely affects sites on English Heritage's Register of Historic Parks and Gardens or their settings will not be permitted.
- 5.03 The work undertaken on the previous schemes was very thorough and clearly set out the form and development of the house and that of the gardens.
- 5.04 The scope of this Heritage Statement is therefore to reprise for the specific analysis and research previously submitted in relation to the nature and extent of significance of the western terraced gardens, and orchard terrace level in particular, and, in accordance with Advice note 3 para 18. consider:
- Which assets are affected
  - The physical surroundings of the heritage asset, including its relationship with other heritage assets
  - The way the asset is appreciated; and
  - The asset's associations and patterns of use.
- 5.05 It will then address and justify the specific changes in the design of the scheme identified above in relation to the effect of the proposal on the significance.

## 6.00 SUMMARY OF HERITAGE ASSETS AND THEIR SETTINGS AFFECTED BY THE PROPOSAL

- 6.01 The English Heritage Register of Historic Parks and Gardens entry (updated 2002) summarises the historic and architectural importance of the building:

*“St Catherine’s Court (listed Grade 1) is a many gabled three-storey house which dates from the C16 with many later alterations, particularly from the C19, in the Tudor style. It is built of Cotswold stone with a stone roof. According to Pevsner (1958), the adjacent St Catherine’s Church was built or enlarged by Prior Cantlow of Bath in c 1490 and the Court may contain parts of a priory grange from this period, especially the masonry of the Hall. He says the Court was enlarged and made more monumental in the C17 for William Blanchard who probably also laid out the terrace gardens. The house was altered in the C19 and 1900 by C E Bateman and a conservatory was added in the south-east corner in the early C20. The house has undergone extensive restoration in the last fifteen years by the present (2002) owner”*

- 6.02 St Catherine’s Court, dating from at least 1310, is a Grade I listed manor house, once the seat of the Abbots of Bath. The church of St Catherine (Grade I) is situated within the immediate setting of the House to the north east of the entrance front across the entrance courtyard. A large 15<sup>th</sup> century tithe barn occupies a detached position beyond the church, defining the eastern extent of the group.
- 6.03 The retaining walls and steps which comprise the first level of the western terrace are listed Grade II\*. The garden is a Grade II\* registered park and garden whilst there are a number of associated historic water features including a well (MBN 2047).
- 6.04 To the west are two downs, Charmy Down and Holts Down, historically used by the owners and tenants of the Court to graze their flocks. The site and surrounding area are included within the Cotswold ANOB.



## 7.00 SUMMARY EVALUATION OF SIGNIFICANCE

7.01 In the first quarter of the 14<sup>th</sup> century, St Catherine's Court was the Manor Court and the Prior of Bath's country grange, part of the monastery of Bath. It later became a farm, run by the Prior's steward until dissolution, when it was granted to John Malte, whose daughter Etheldrad married John Harrington, the owner of nearby Kelston, where he had built a substantial new manor house and landscaped gardens. His son was famous for designing water features for his gardens and may well have inspired the gardens of St Catherine's by William Blanchard, who purchased the house in the late 16<sup>th</sup> century and rebuilt a substantial part of it. (Ref McLaughlin Ross Gardens Report 2009 p 6).

7.02 The submitted goes on to describe the development of the gardens in detail:

*"There are a number of water courses that run through the gardens, especially down the west terrace from the spring house at the top of the hill above. The remains of some of the connected water features remain. The spring or well house, now blocked up, is set into the hillside with a large trapdoor on the ground in front. A rectangular grotto was uncovered a few years ago in the wall below the main west terrace, to the south of the steps. It featured in early 20<sup>th</sup> Century photographs before being covered over by ivy. Inside is a heavily mossed stone, which is probably tufa. The design is similar to that installed by Edward Cappell at nearby Swainswick Manor in the c1920's. As Edward Capell and William Blanchard were such close neighbours, it seems likely that they saw each other's improvements, and may well have shared ideas, gardeners and builders.*

*A further series of water features on the north side of the terrace steps fed into the c1930's octagonal lily pond, though most of it was destroyed in the 1970's along with a fountain incorporated into the Hall, fed by one of these water courses. On the hillside above the terrace is a miniature waterfall with a small spring fed stream running down through rocks to a pool below. No mention of the origins of this feature have been found but it thought to have been created by Geoffrey and Sybil Strutt c1930's.*

*The last Strutts to own St Catherine's were Geoffrey and Sybil Strutt from 1927. They laid much of the gardens to lawn and shrubs and inserted the stone cruciform swimming pool on the uppermost western terrace in 1930, having reclaimed part of the pasture above. They also created the octagonal lily pond on the north front fed by a stream running down from the west terrace. A self-sufficient pair, they filled the kitchen garden with glasshouses and created a vegetable garden beyond. They also built the tennis courts on the opposite side of the road.*

*Following their deaths, ending the family's residency of over 130 years, the house was sold in the 1970's to the Christophers. It was they who, unfortunately, destroyed most of the early 20<sup>th</sup> century gardens and the Tudor gatehouse, as well as causing a substantial amount of damage to the interior. From the 1980's until fairly recently, the house was owned by Jane Seymour and James Keach, who repaired much of the damage the Christophers had caused, both in the house and gardens. The kitchen garden was dismantled and levelled c2000.*

*The gardens have been documented through a series of engravings, paintings and photographs from at least 1826. Gertrude Jekyll wrote about them for County Life and they were painted by Baillie Scott in 1926. Fellow architect Harold Peto and garden designer Inigo Triggs also visited and later may have had substantial input into the design of the Orangery, Loggia and contemporary garden features. The current owner is restoring the early 19<sup>th</sup> century south garden (March 2009), building new stone pergolas in the same style as the original ones.”*

*(Reproduced with kind permission of McLaughlin Ross: Source Gardens Report 2009 pp 6&7).*

- 7.03 The 1840 Tithe Map shows the west terrace (106) with three distinct horizontal divisions following the north west–south east axis of the manor house. The map shows the bowling green terrace and terrace above, clearly delineated as the narrow 6m strip as are today. The garden ends where the existing low retaining walls are at present with pasture beyond in the area of the 1930’s cruciform swimming pool terrace. This form for the west terraces is shown in more detail on the 1886 OS 1:2500 map (Fig. 9). This also denotes the liner axis of the symmetrical garden layout, interestingly showing the vista terminating in steps or a small centrally placed pool before the boundary and a belt of trees beyond.

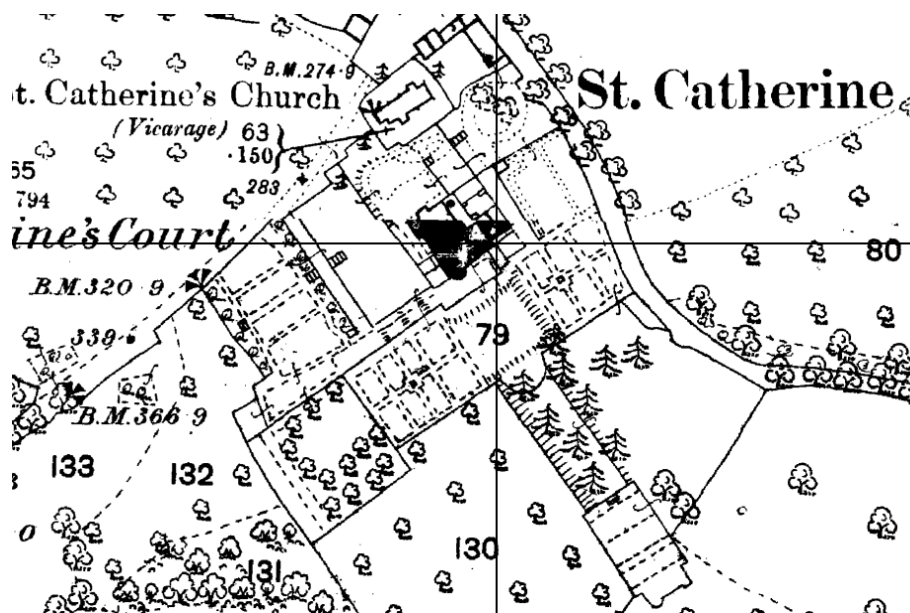


Fig. 9 1886 OS 1:2500 Map(Source Landmark Information Group)

- 7.04 A 1930 article reference in the garden report notes of the western terrace:

*“Between the church and the house is a partly paved court with an octagonal pool in the centre. Above the court is the great Jacobean terrace with its fine Yew hedge towering above it.. Further up the hill is a small enclosed garden and above it a bathing pool surrounded by yews” note 33 (Robert Cooke, West Country Houses, 1957,pp 180-181).*

- 7.05 The arrangement and geometric juxtaposition of building and garden elements (except the orchard terrace and outdoor pool) are best illustrated in the aerial view of St Catherine's Court in the 1960's (Fig. 10). The church is situated to the northwest separated from the entrance front of the manor by a garden. The symmetrical western terraces are laid out extending up the western slope of the hillside to the right and side and the strong linear axis from the south western facing projecting porch entrance can be traced through the lower level formal terrace where it is framed by two tall trees, the narrow strip of the bowling green runs transverse to these and parallel to the axis of the house. The site was formerly defined and screened by two tiers of balustrade and dense clipped yews.



*Fig 10 Aerial View of St Catherine's Court in 1960's  
(Reproduced with kind permission of McLaughlin Ross IIP : Source Historic Building Report page 27)*

- 7.06 The orchard area, by contrast, appears never to have been levelled and slopes upward to a series of steps and the spring. Although there are no definitive photographs of this rather hidden space, a 1956 photo would indicate it was informally planted, and in contrast to the lower terrace which is defined and screened by transverse stone walls stepped to define and screen the gardens in longer range views. It has an informal naturalistic boundary to the north east and south west. The south western boundary in particular falls away sharply and retains remnants of a 1930's waterfall and informal curvilinear paths cut into the slopes. The orchard has a distinctly naturalistic form in contrast to the tighter grain of the Court complex and its immediate formal gardens below in long range views across the registered park. This combination of formal and informal was noted in an article of 1898 where the gardens were praised for combining strictly formal planting with the freely natural. (ref Garden Report p21 and Figs 1 to 5 of this Statement and Separate Photograph Site Analysis Set A3 40-43)

- 7.07 The conclusion of the Historic Buildings Report on the gardens of St Catherine's Court (2009) notes *"A series of drawings, maps and photographs, as well as documentary evidence, show that the gardens of St Catherine's Court have been adapted over more than 400 years according to each owners tastes.....There is no documentary evidence to suggest what the large orchard area would have looked like, or if it did indeed form part of the 17<sup>th</sup> century terracing. Judging by the evidence of the terraced garden at Swainswick, it is likely that it did from part of the terrace and probably incorporated a similar water system"*
- 7.08 Whatever the use and appearance of the terraced gardens at any one point in time, it is surely no coincidence that the panoramic and picturesque group formed by the house, church and gardens has been consistently captured by a series of images, photographs and drawings from the elevated western hillside. These include postcards c1890 (Fig.11), a pastel in the studio's 1926/27 Winter Edition by Baillie Scott (Fig. 12) and a 1932 Batsford book cover by Brian Cook (Fig 13).

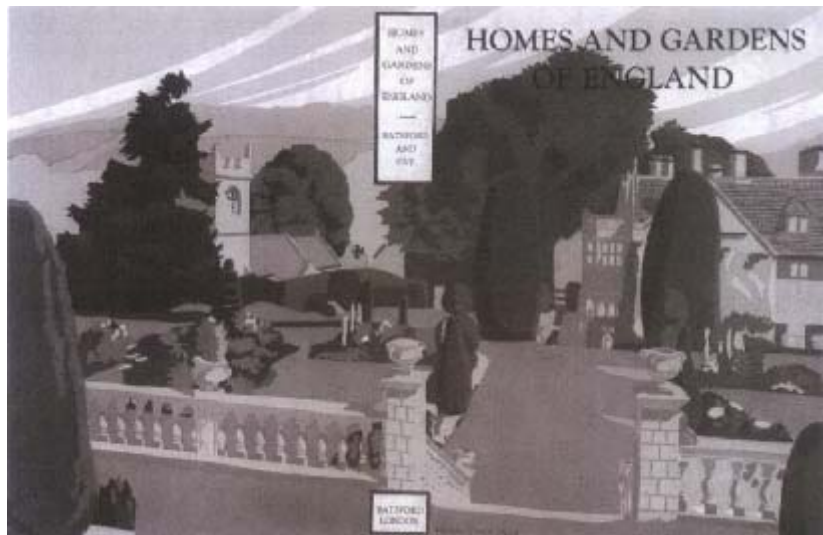


*Fig 11 Postcard c 1890  
(BL:Boodle V.8 p11 Source: McLaughlin Ross IIP Historic Building Report page 28)*





*Fig 12 Pastel – The Studio 1926/27 Winter Edition by Baillie Scott p 53  
(Source: McLaughlin Ross IIP Historic Building Report page 24)*



*Fig 13 1932 Batsford Book Cover by Brian Cook  
(Source: McLaughlin Ross IIP Historic Building Report page 25)*

7.09 The axis therefore may not only have been a visual device leading the eye out of the entrance court to the estate beyond, but it created variety and interest and in the form and complexity of the garden spaces and it offered a sequence of vistas from which to pause, admire and frame the composition of the Court complex below.

## 8.00 IMPACT OF THE CHANGES ON SIGNIFICANCE

8.01 The English Heritage response letter dated 17<sup>th</sup> November 2009 noted:

*“The site has significance in terms of its 14<sup>th</sup> century origins and subsequent evolution with major phase of development in the 17<sup>th</sup>, 19<sup>th</sup> and early 20<sup>th</sup> centuries. The garden design has been clearly linked with the architecture of the house throughout the centuries. The proposed siting of the new swimming pool is one of the less significant parts of the garden; however it would be a major new structure within the registered landscape.”*

8.02 The Historic Buildings Inspector continues :

*“The placing of the (pool) building to the north of the central axis would lessen its impact on the wider landscape and the photographic analysis demonstrates there is no adverse impact on the site and setting of the Grade I listed St Catherine’s Court and its gardens when viewed from surrounding public rights of way”*

8.03 The proposed amended scheme seeks to retain the essential form, footprint and position of the approved building. Its footprint had been reduced by 20 % at basement level and 2.17m in width, although, given the terraced roof garden, the overall height is moderately increased by 0.778m by the addition of the terraced garden balustrade. It is argued that given the retention of the existing land contour form to the south east, that this increase in height will not materially change the accepted impact of the proposal in longer range views of the site, as it will be primarily screened by the green swathe of the ridge and mature trees on the lower south east boundary at its lowest point.

8.04 The impact on the setting and character of both the house complex and registered garden will therefore remain unchanged and unharmed in this respect. The scheme will indeed impact less on views from the pool terrace in respect of any upstanding balustrade, existing levels and the form of the roof terrace.

8.05 The use of the belvedere as a visual device has a resonance with the past use of the terrace gardens from which to review the house in its garden setting, whilst the terraced gardens have, from their 17<sup>th</sup> century origin had a strong association with water and its enjoyment and focus within the landscape. The proposal of the belvedere and Grotto in association with the pool would be in our view consistent with the continuing the historical narrative of the site.

8.06 In this respect the revised proposal seeks to both respect the historic legibility of the informal character of the orchard terrace garden by using the form of the sweeping stair to integrate and respond to the formal architecture of the pool building whilst moderating the transition with the informal landscape. It is considered that this approach better sustains and respects the historic significance of the site, rather than forming three strongly individual and contrasting forms, namely the rectilinear pool building, axial stair and steeply contoured basin slopes.

## 9.00 CONCLUSION

9.01 The National Planning Guidance Note Paragraph: 003 Reference ID: 18a-003-20140306 states:

*“Conservation is an active process of maintenance and managing change. It requires a flexible and thoughtful approach to get the best out of assets as diverse as listed buildings in everyday use to as yet undiscovered, undesignated buried remains of archaeological interest.”*

9.02 The significance of house and gardens of St Catherine’s Court is derived from their cumulative adaption and extension from medieval times. Each stage has retained elements of the previous fabric and arrangement but also, with the exception of the works undertaken in the 1970’s, they have augmented and enhanced the whole.

9.03 The landscape architect response reported to Committee in 2009 noted:

*“The proposed swimming pool and associated building are located in a part of the grounds where the development would fall naturally and geometrically within the footprint of the existing garden. The principle of a pool in this area has already been established with the adjacent plunge pool. This is a logical progression where the property has developed in a step by step fashion over a long number of years.”*

9.04 This pre-application submission has sought to maintain the key elements of the approved pool scheme whilst addressing and refining the design and its contextual relationship to this sensitive site.

## 10.00 ACKNOWLEDGEMENTS

JCA would like to thank Kay Ross and David McLaughlin for very kindly allowing the use and reproduction of their research and images at this informal pre-application. The depth and quality of their work and particularly that of Kay Ross has been invaluable in understanding the significance of the court and its associated setting and in informing the revised design.



## **APPENDIX I**

### **SUMMARY OF LIST ENTRIES**

**Name:** *CHURCH OF ST CATHERINE*

**List Entry Number:** *1277121*

**Location:** *Church of St Catherine*

#### **Details**

ST 77 SE ST CATHERINE'S

2/167 CHURCH OF ST CATHERINE

1.2.56 II\*

G.V.

#### **Church of St Catherine**

Anglican Parish Church, C12, altered and remodelled extensively c 1490 for Prior Cantlow of Bath; tower and north side of church restored 1704; restored 1846 and decorated 1880 by Powell of London. West tower, nave and south porch, chancel and north vestry. Ashlar and rubble with freestone dressings; stone slate roof with coped raised verges and cross finials. West tower of 2 stages with an embattled parapet and pinnacles; 3-light Perpendicular style openings to the bell chamber with tracery quatrefoils and circles and setback in a hollow chamfered, plain arch; on the south side is a large sundial and an inscription noting the 1704 restoration. Nave: single cusped light to west of porch and 3-light Perpendicular style window to east, the latter also with cusped heads and under a square hood mould; single and 3-light late C19 Perpendicular style windows on north side; buttresses with off-sets. South porch is projecting and gabled; buttress with off-sets on east side; double chamfered arch. Chancel: 2- and 3-light windows as nave; large 4-light east window as others but with a four-centred head; south priest's door in a double ogee and hollow moulded surround. The south doorway has a 4-centred head and a double ogee-hollow-ogee moulded surround, hoodmould and stops: studded plank door with strap hinges. Interior: Chamfered tower arch springing from scalloped capitals on a cylindrical corbel. Early English chamfered chancel arch resting on C19 columns; 2 demi-figures of angels holding shields on a chancel arch wall; squint through north pier. The chancel has a barrel roof with plain interspaces and coloured and moulded ribs and bosses. Pulpit is late C15, repainted C19; half octagon with 2 panels of arcading to each side. Front: late C12 AND C13; ashlar, square bowl with blank arcade and interlace decoration to upper part, fluting on lower; cylindrical stem. Vicar's pew incorporates C15 bench ends and decoration. Painted and tiled tower and chancel arches are c. 1880 by Powell. Glass: East window, dated 1490 restored 1846; three figures of the Rood AND St Peter; below is an inscription and the arms and kneeling figure of Prior Cantlow; borderwork with crowns and letters of donor's name. South chancel window: three C15 roundels, 2 painted with eagles holding scrolls inscribed with Cantlow's name and central figure of St Catherine trampling on the Emperor Maxentius. Nave south window has C15 roses and suns. Heraldic glass of 1846 in chancel and nave, to Colonel Strutt. Monuments in chancel: William Blanchard, died 1631, 2 kneeling figures (he in armour) and 4 kneeling children below, in Corinthian columns and under a broken pediment with arms: William Blanchard, died 1686, inscribed plaque with Tuscan columns and segmental pediment. Nave: Anne Dyer, died 1815, inscribed plaque with urn above. (N. Pevsner, *The Buildings of England: North Somerset and Bristol*, 1958. C. Woodforde, *Stained Glass in Somerset*, 1946).

*Listing NGR: ST7777170250*

**Name:** BARN, TO NORTH EAST OF ST CATHERINE'S COURT

**List Entry Number:** 1277073

**Location:** Barn, To North East of St Catherine's Court

**Details**

ST 77 SE ST CATHERINE'S

2/174 BARN, TO NORTH-EAST OF ST CATHERINE'S COURT

G.V. II\*

**Barn, to north-east of St Catherine's Court.**

Barn: probably C15. Coursed rubble with freestone dressings; stone slate roof with coped raised verges. Traditional plan with opposed gabled, projecting porches; coped gables with ball finials; square-headed cast entry. Stable door to right of south porch, with loft door over. Putlog holes in elevation and gable ends. Interior 8 or 9 bays, the central trusses are raised crucks with arch-braced collar beams; the first truss to the west has a hammer beam and strut; other collar beam trusses, some with windbraces.

*Listing NGR: ST7775870284*

**Name:** ST CATHERINE'S COURT

**List Entry Number:**

**Location:** St Catherine, Bath and North East Somerset BA1 8HA

#### Details

ST 77 SE ST CATHERINE'S  
2/163 ST CATHERINE'S COURT  
1.2.56 I  
G.V.

#### St Catherine's Court

Court or manor house, probably incorporated parts of a priory grange. C16, possibly incorporating older fragments; altered early mid C17, for William Blanchard; C19 and c. 1900 by C.E. Bateman. Rubble with freestone quoins and dressings; stone slate roof with coped raised verges; ashlar stacks with cornice, diagonal on east end. 2 storeys and attics in 3 steep gables which have a saddleback coping and ball finials on stems. Four cross windows on ground floor, the outer ones are of 4-lights with king mullions and the inner ones are 2-lights; two 3-light windows on the first floor; all in ovolo moulded surrounds; relieving arched and continuous string courses over lower 2 floors. Central 2 storey ashlar porch with canted sides; round-headed doorway with keystone, impostes and roundels in the spandrels; flanking Tuscan columns on pedestals and triglyph frieze; inner plank studded door in ashlar doorcase; the angled sides have shell headed niches and the straight sides are pierced with balustrading, on the first floor is a 3:1:4:3 light cross window with a panel of arms and a balustrade parapet over. At the east end is a wing known as the former chapel: 4 panelled ashlar buttress on north side; the east gable end has a late C19 arcaded loggia on the ground floor and an oriel window.

The rear elevation has been extensively altered and most of the eastern part is early C20, including a conservatory which has Tuscan columns, a balustrade parapet and semi-circular headed windows. Interior Main Hall (north-west): much C17 glass in square, diamond and lozenge-shaped quarries; ashlar fireplace in ogee and hollow moulded surround with a 4-centred head and moulded mantelshelf; rear door is an ogee-step hollow moulded surround. Dining hall (north-east): ashlar fireplace with 4-centred head and in an ogee moulded and reserved chamfered surround, plain frieze and moulded cornice, decorative overmantel with needed Ionic pilasters. The central west room has an ashlar fireplace and an ogee-hollow moulded surround and with a 4-centred head, fluted frieze and moulded cornice. Drawing room (south-west): late C17 plaster ceiling with a central oval and borderwork of fruit, vegetables and vines, square and rectangular side panels. Library (south-east): 1915 with fine copy of early C17 ceiling. First floor centre (north): C17 panelling and moulded plaster frieze with figures holding shields and circles. Blanchard Rom (north-west): C17 and restored panelling; enriched plaster frieze with fantastic animals and shield, one with initials "WB/S" (William Blanchard), over west window; ashlar fireplace with 4-centred head and in an ovolo moulded surround with corbelled-out head. Centre west room has bolection moulded panelling and fireplace. (Country Life, 4 24, XII.1898; 13, 18.IV.1903; 20, 24.X.1906; 20, 1.XII.1906. N Pevsner. The Buildings of England: North Somerset and Bristol, 1958).

*Listing NGR: ST7778970204*

*This text is a legacy record and has not been updated since the building was originally listed. Details of the building may have changed in the intervening time.*

*Source: English Heritage.*

**Name:** *RETAINING WALLS & GARDEN WALLS, ENCLOSING WEST TERRACE AND BOWLING GREEN TERRACE, INCLUDING CENTRAL FLIGHT OF STEPS TO NORTH WEST OF ST CATHERINE'S COURT*

**List Entry Number:** *1232373*

**Location:** *St Catherine, Bath and North East Somerset BA1 8HA*

#### **Details**

ST 77 SE ST CATHERINE'S

2/166 RETAINING WALLS AND GARDEN WALLS, ENCLOSING WEST TERRACE AND BOWING G V GREEN TERRACE, INCLUDING CENTRAL FLIGHT OF STEPS TO NORTH WEST OF ST CATHERINE'S COURT

II\*

G.V.

#### **St Catherine's Court**

Retaining walls, garden walls and central flight of steps. Probably late C17. Coursed squared rubble and ashlar retaining wall approximately 12 feet high, with a balustrade parapet of 19 bays divided by enriched panelled pedestals with alternating ball and urn finials, supported on enriched brackets; the central bay contains a flight of 19 steps with balustraded parapets and panelled piers; the piers at the top of the steps are rusticated. At the north end the wall is approximately 8-10 feet high and it returns to the east for approximately 25 yards. At the south end is a coursed rubble retaining wall approximately 25 yards long and ranging from 4 to 20 feet high. The north and south ends of the Bowling Green Terrace (the upper terrace) continue the main parapet, but they are without balustrades; central panelled piers and moulded cornice. Coursed squared rubble west wall to Bowling Green Terrace. (Country Life: 4, 24.XII.1898; 13, 18.IV.1903; 20, 24.XI.1906; 20, 1.XII.1906).

*Listing NGR: ST7774870185*

## **APPENDIX II**

### **VOLUME CALCULATION COMPARISONS**

#### **VOLUME CALCULATION**

<b>Job:</b>	<b>St Catherine's Court</b>
-------------	-----------------------------

<b>Building Volume Calculations</b>	
<b>Description:</b>	<b>Proposed swimming pool extension</b>

#### **2009 CONSENTED SCHEME**

(Please refer to Policy statement in support the application Graham Gover Solicitor October 2009 Appendix I Revised submission table).

<b>Item</b>	<b>Dimensions in metres</b>	<b>Volume m<sup>3</sup></b>
Main Building	Up to top of flat roof 3.255 x 16.1 x 19.5	1021.9 m <sup>3</sup>
Hipped roof 1	$(5.0 \times 1.01 \times 2.5 / 3 \times 2) + (5.0 \times 1.01 / 2 \times 10)$	33.65 m <sup>3</sup>
Hipped roof 2	$(5.0 \times 1.01 \times 2.5 / 3 \times 2) + (5.05 \times 1.01 / 2 \times 10)$	33.65 m <sup>3</sup>
Balcony	CSA of balcony (from plans) = 2.3 m <sup>2</sup> x 71 m Length of balcony	163.3 m <sup>3</sup>
Basement		661.0 m <sup>3</sup>
	<b>Total</b>	<b>1913.5 m<sup>3</sup></b>

#### **2015 JCA PROPOSAL**

<b>Item</b>	<b>Dimensions in metres</b>	<b>Volume m<sup>3</sup></b>
Main Building	Up to top of flat roof 3.78 x 13.93 x 19.22	1012 m <sup>3</sup>
Grotto	3.55 x 7.3 x 2.2	57 m <sup>3</sup>
Lantern roof	1.1 x 6.4 x 16.64	117.15 m <sup>3</sup>
Balcony	CSA of balcony x Length of balcony	12.5 m <sup>3</sup>
Basement		714 m <sup>3</sup>
	<b>Total</b>	<b>1912.65 m<sup>3</sup></b>

**VOLUMES Comparison between 2015 JCA Proposal & 2009 Consented scheme**

	<b>2015 JCA PROPOSAL Volume</b>	<b>2009 CONSENTED SCHEME Volume</b>
<b>Main SPA building above ground</b>	1198.65 m <sup>3</sup>	1252 m <sup>3</sup>
<b>Basement</b>	714 m <sup>3</sup>	661 m <sup>3</sup>

**EXCAVATION FOOTPRINT AREA Comparison between 2015 JCA Proposal & 2009 Consented scheme**  
 (Please refer to the A3-33 drawings).

	<b>2015 JCA PROPOSAL</b>	<b>2009 CONSENTED SCHEME</b>
<b>Footprint Area of excavation</b>	459.34 m <sup>2</sup>	575.36 m <sup>2</sup>
<b>% of Reduction</b>	20 %	

**EXCAVATION VOLUME Comparison between 2015 JCA Proposal & 2009 Consented scheme**

	<b>2015 JCA PROPOSAL</b>	<b>2009 CONSENTED SCHEME</b>
<b>Volume of excavation</b>	1472 m <sup>3</sup>	1323.3 m <sup>3</sup>

**APPENDIX III****CALCULATION OF GLAZING AREA  
2009 CONSENTED SCHEME:****NORTH-EAST ELEVATION:**

$$2.32 \text{ m}^2 \times 8$$

$$= 18.56 \text{ m}^2$$

**NORTH-WEST ELEVATION:**

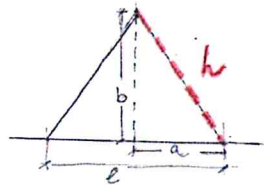
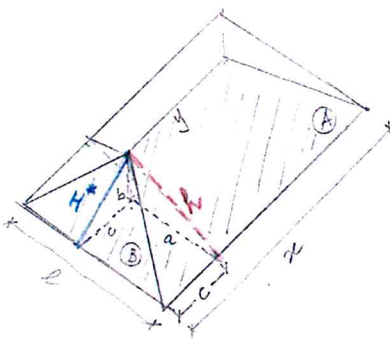
$$2.32 \text{ m}^2 \times 8$$

$$= 18.56 \text{ m}^2$$

**SOUTH-EAST ELEVATION:**

$$2.32 \text{ m}^2 \times 8$$

$$= 18.56 \text{ m}^2$$

**LANTERN:**

$h$  = hypotenuse of the triangle section

$$l = 4.68 \text{ m}$$

$$a = 2.34 \text{ m}$$

$$b = 0.53 \text{ m}$$

- Calculation of the lantern glazing Area  
Tot glazing = (2 x Face A [trapezium]) + (2 x face B [triangle]) x number of lanterns
- Calculation of the trapezium Area (Face A):

$$\text{AREA of trapezium: } \frac{x+y}{2} \times h$$

$h$  = hypotenuse of the triangle section

$$h = \sqrt{a^2 + b^2} = \sqrt{2.34^2 + 0.53^2} = 2.4 \text{ m}$$

$$\text{Face A (trapezium)} = \frac{x+y}{2} \times h = \frac{6.058 + 1.531}{2} \times 2.4 = 9.1 \text{ m}^2$$



- Calculation of the triangle section Area (Face B):

$$\text{AREA of triangle section: } \frac{L \times H^*}{2}$$

$$C = \frac{x-y}{2} = \frac{6.058-1.531}{2} = 2.26 \text{ m}$$

$$H^* = \sqrt{c^2 + b^2} = \sqrt{2.26^2 + 0.53^2} = 2.32 \text{ m}$$

$$\text{Face B (triangle)} = \frac{L \times H^*}{2} = \frac{4.3 \times 2.32}{2} = 5 \text{ m}^2$$

$$\text{Total glazing} = (2 \times 9.1 \text{ m}^2) + (5 \text{ m}^2 \times 2) \times 4 = 112.8 \text{ m}^2$$

Calculation of the Glazing Area for the 2009 Consented scheme is:

$$\text{TOTAL glazing} = 18.56 \text{ m}^2 + 18.56 \text{ m}^2 + 18.56 \text{ m}^2 + 112.8 \text{ m}^2 = 168.48 \text{ m}^2$$

**CALCULATION OF GLAZING AREA  
2015 JCA PROPOSAL**

**NORTH-EAST ELEVATION:**2.87 m<sup>2</sup> x 8= **22.96 m<sup>2</sup>****NORTH-WEST ELEVATION:**

No windows

**SOUTH-EAST ELEVATION:****The South-East elevation has been divided in 3 parts:**

- Left side of the front compared to the loggia
- Loggia
- Right side of the front compared to the loggia

Left side of the front compared to the loggia1.65 m<sup>2</sup> x 3 = 4.95 m<sup>2</sup>Loggia:2.18 x 3 = 6.54 m<sup>2</sup>Right side of the front compared to the loggia2 x 2.87 m<sup>2</sup> = 5.74 m<sup>2</sup> (1 door window is blind, there is the fireplace)**The total glazing area in the South-East elevation is:**South-East = 4.95 m<sup>2</sup> + 6.54 m<sup>2</sup> + 5.74 m<sup>2</sup>= **17.23 m<sup>2</sup>****OCULUS:**

Oculus above the pool:

= **0.25 m<sup>2</sup>**

Oculus above the stair:

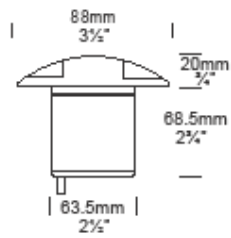
= **0.25 m<sup>2</sup>****LANTERN WINDOWS:**0.47 m<sup>2</sup> x 14= **6.58 m<sup>2</sup>****Calculation of the Glazing Area for the 2015 JCA Proposal is:****TOTAL glazing = 22.96 m<sup>2</sup> + 17.23 m<sup>2</sup> + 0.5 m<sup>2</sup> + 6.58 m<sup>2</sup>**= **47.27 m<sup>2</sup>****SUMMARY OF GLAZING AREAS****Comparison between 2015 JCA Proposal & 2009 Consented Scheme**

	2015 JCA proposal	2009 Consented scheme
Glazing Area	<b>47.27 m<sup>2</sup></b>	<b>168.48 m<sup>2</sup></b>
% of Reduction	<b>72 %</b>	

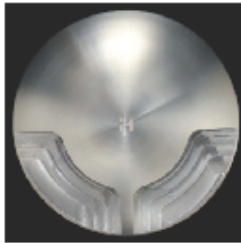
## APPENDIX IV

### INDICATIVE EXTERNAL LUMINARY EXAMPLE

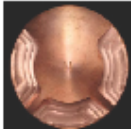
**Path Lite  
PURE LED**  
Cat. No. PL(1-4)/L



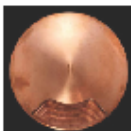
Path Lite 1-180°



3-270° Beam



4-360° Beam



1-90° Beam



2x90° Beam



**PURE LED**  
Pure Performance

The Path Lite Pure Led is ideal for lighting flat areas, decks/paved courtyards, and edge lighting paths. The frosted Borosilica dome glass lens has been developed to prevent dirt, mud, grass clippings or water from entering the optics area, keeping with its IP68 rating. In addition, the glass lens retains the sealing gasket and significantly reduces glare through 1, 2, 3 or 4 facets. The Path Lite 2 facets may be used as a step light in a wall or fence, etc. to shine light up and down.

The Hunza PURE LED system uses Cree MT-G2 chip for maximum performance and long life. Power supply options include a choice of integral 12 volt or an external remote (series connection) drivers. The PURE LED system incorporates Hunza's Plug-and-Play system for easy replacement of either the LED engine or integral driver in the field. A choice of Warm or Cool White colour temperatures is available.

The Path Lite Stainless Flanges are very durable and can withstand static weight loads between 1700kg and 3500kg.

\*At 700mA this fitting is the equivalent of a 35w halogen fitting.

\*At 1000mA this fitting is the equivalent of a 50w halogen fitting.

#### Ordering Information

**Luminaire**

PL1/L  
PL2/L  
PL3/L  
PL4/L

**Driver mA**

S - Series  
D7 - 12v 700mA  
D10 - 12v 1050mA

**Colour Temp**

3 - 3000K  
4 - 4000K

**Accessories**

CJK150  
SLCAN  
CANSS  
FLCAN  
DKCAN

**Material/Finish**

COP - Copper  
SS - 316 Stainless

Ordering Example: PL1/L S 3 CJK150 SS

	<p>HUNZA FACTORY 130 Felton Mathew Ave Saint Johns Auckland 1072 New Zealand</p>	<p>Ph: 64-9-528 9471 Fax: 64-9-528 9361 hunza@hunza.co.nz www.hunza.co.nz</p>	<p>INTERNATIONAL CONTACTS: www.hunza.co.nz/contacts.php <small>Specifications may change without notice. Manufactured in New Zealand. © 2014 Hunza Holdings Ltd.</small></p>
--	--	---	--