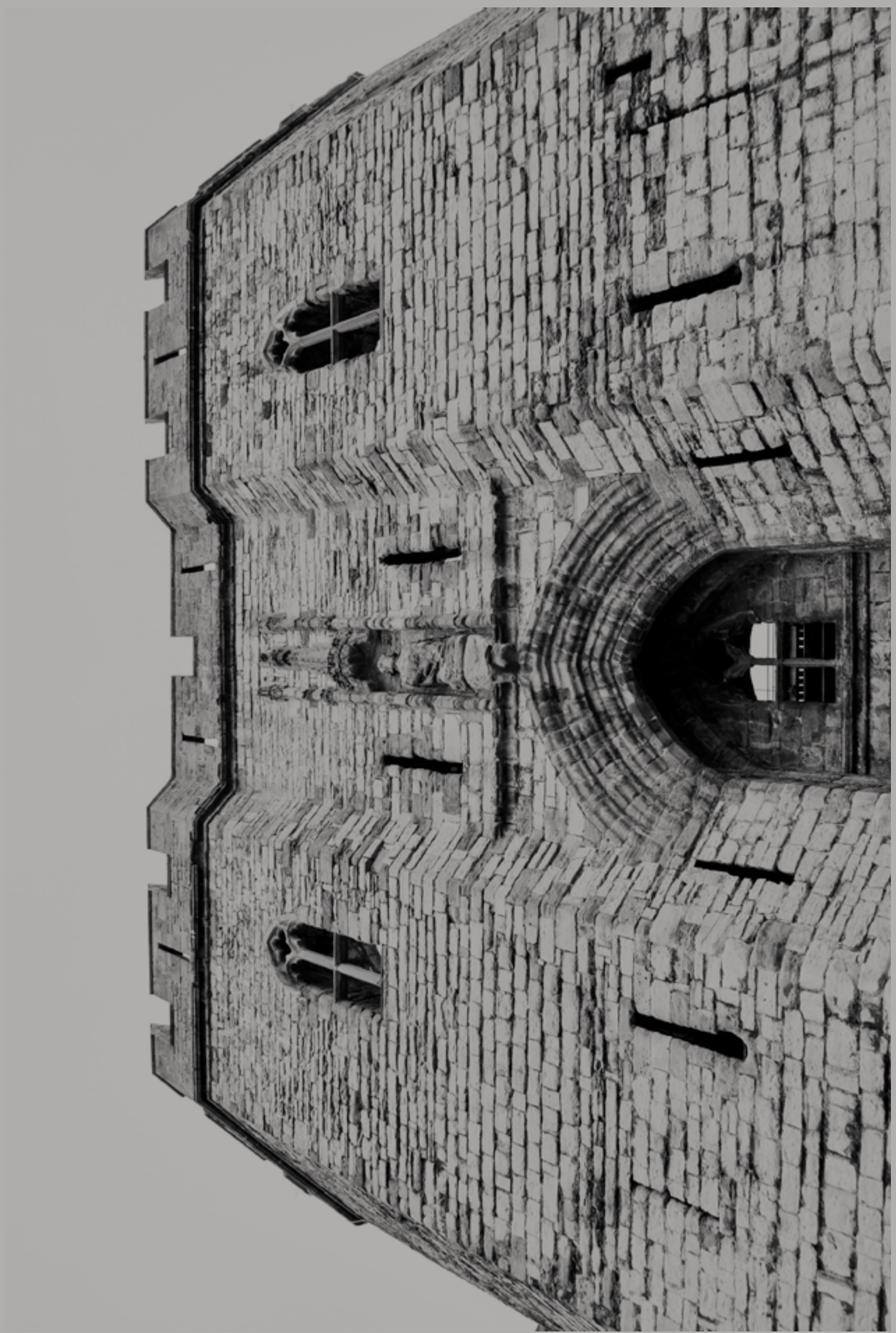
King's Gate
Caernarfon Castle



Heritage Impact Assessment
November 2020

Buttress is a leading design studio providing architecture, urban design, interiors, heritage consultancy and conservation design services.

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Buttress

Buttress Architects Ltd.
41 Bengal St.
Manchester
M4 6AF

T: 0161 236 3303
W: www.buttress.net



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1.0

Introduction

Non-Technical Summary

This assessment refers to the plans for building new visitor, interpretation and access facilities in and around the existing King's Gate at Caernarfon Castle.

Buttress were commissioned by Cadw to provide a detailed Feasibility Study outlining creative solutions for use of the space within and atop the King's Gate including increased physical access to the battlements between the Well Tower and Granary Tower.

Buttress developed a suite of options that have been assessed for their suitability in meeting the 3.2 Requirements of the Brief, and their associated heritage impacts. The scheme presented in this document is informed by an established 3.3 Conservation Philosophy, and based on extensive design development, consultation and analysis.

Briefly, the scheme includes: an improved retail space; relocation of current staff facilities and storage; the provision of a light snack/ refreshments servery and seating covers; replacement of existing floor plates; installation of a lift and vertical circulation to facilitate access to higher storeys; insertion of floor plates in a currently vacant tower; upgrading of WC facilities including a Changing Places WC; new balustrades; and all associated conservation, repair, and services. The more detailed proposals for this work are captured in 3.0 Outline of Proposals. The location for these facilities was chosen by an optioneering process carried out by Cadw as part of their wider strategic framework, which is explored in more detail in 12.0 Mitigation.

The Heritage Impact Assessment has been prepared by Buttress, who are also responsible for the design of the new scheme. The Buttress team has been separated into a Design Team (DT) and a Heritage Consultancy Team (HCT) in order to maintain a level of independence. The HCT is also supported by Salford Archaeology (carrying out an Historic Building Investigation 16.8) and The Audience Agency (carrying out audience research 16.13). Summary impact assessments of the initial scheme options were fed back from the HCT to the DT, expressing concern on the scale of harmful impact. At this point, it became clear that the HCT would be required to provide heritage impact oversight during the design development to ensure appropriate treatment of the significant historic fabric. The HCT has also communicated summary findings of the Historic Building Investigation survey to the DT to inform their re-thinking during the design process.

The Heritage Impact Assessment was produced on the understanding of its requirement from ICOMOS and the World Heritage Committee, in accordance with the ICOMOS *Guidance on Heritage Impact Assessments for World Heritage Cultural Properties*. The Buttress HCT sought feedback on its structure and content from ICOMOS-UK representative Sian Rees to enhance its effectiveness as an independent and rigorous document, and from the Cadw team.

The scope of the evaluation was defined, with three areas being identified as being exposed to the influence of the proposed works. These are The King's Gate, Caernarfon Castle & Town Walls, and the wider Castles and Town Walls of King Edward in Gwynedd World Heritage Site. Whilst context and setting are significant elements of the heritage values of the site, it was considered that the principal type of heritage affected by the proposals was the architectural and structural elements, particularly those identified as OUV attributes. The assessment concludes that the impact on the broader setting and World Heritage Site is neutral.

The assessment provides an analysis of the overall impact of the proposed changes on OUV and attributes identified by the inscription. This was undertaken using the change and impact scales recommended by ICOMOS, also taking the benefit of intervention into consideration. The overall impact was classified as minor to major change, with minor to major beneficial impacts. The consequences have been considered for both their direct and indirect impact on the integrity and authenticity of the heritage.

The assessment concludes that overall, benefit outweighs harm, especially through the careful mitigation of design and decision making; although caution is recommended to ensure that the scheme is reversible, duly respectful of the existing fabric, and has a minimal impact on the wider heritage context. Benefit is also communicated through the increased access, both physically and intellectually, to the Castle and the attributes of OUV.

Dr Christopher Young, MA, DPhil, FSA, was selected to carry out a two-stage peer-review. Dr Young, a former head of World Heritage and International Advice at English Heritage, has a long experience of working with World Heritage, has been part of HIA teams, and has previously peer-reviewed draft HIAs. The conclusions of their review are included in 13.2 Consultation on the Heritage Impact Assessment, and their comments taken on board during both stages.

Acknowledgements

With heartfelt thanks and gratitude to the various teams and individuals that have supported the development of this Heritage Impact Assessment during the course of the project.

Kathryn Roberts, Christopher Wilson, Laurence Smith, Ian Halfpenny and the rest of the team from Cadw.
Lucy Ashcroft and Stephen Anderson from Buttress Architects.
Chris Wild from Salford Archaeology.
Dr Sian Rees.
Dr Christopher Young.

1.0 Introduction

1.1 Project Background

This Heritage Assessment covers Caernarfon Castle's King's Gate, part of the Castles and Town Walls of King Edward in Gwynedd UNESCO World Heritage inscription. Cadw's "Statement of Significance", the inscription of the site's "Attributes of Outstanding Universal Value", and other data gathered, including the "Historic Building Survey and Record" produced by Salford Archaeology, have been used as the baseline for assessing potential heritage impacts of the proposed works. The document has been based on the recommendations contained in the ICOMOS 2011*Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* and Cadw's *Conservation Principles for the Sustainable Management of the Historic Environment in Wales.*

This HIA is the final stage in a wider approach to the assessment of heritage impacts. Heritage impacts have been considered throughout the life-cycle of the project, beginning with the initial options report for proposed locations for new works to facilitate Cadw's aims and objectives for the site. The location of the lift and stairs from Tower 1 to Tower 3 have also had their own options and heritage impacts assessment carried out in order to better understand the impacts of those individual interventions, and to establish an approach that best fits with the conservation philosophy of the scheme. These can be seen in Appendix 16.4. The scheme of enabling works that has been carried out, including archaeological investigations in the ward, were subject to their own stand-alone HIA, but the impact of those works, and the conclusions, have been incorporated into the considerations within this HIA.

In addition, this document has had multiple revisions to reflect changes in the overall scheme and approach. There have been upwards of 8 revisions of the HIA, each responding to variations in the scheme or to feedback from Cadw. In December 2018, DCMS issued a Paragraph 172 Notification to the UNESCO World Heritage Centre with an outline of the scheme at that point. The letter highlighted that the scheme had been significantly revised from the earliest phase, in part due to the concurrent HIA. The design development of the project and reasons for making changes can be read in 12.0 Mitigation.

1.2 Key Details

World Heritage Property Name:	Castles and Town Walls of King Edward in Gwynedd
Geographical Co-Ordinates:	N53 8 23 W4 16 37
Date of Inscription:	1986
Date of Heritage Impact Assessment:	June 2019
Report prepared by:	Buttress Architects.
Report prepared for:	Cadw
Peer Review:	Dr Christopher Young, September 2020

1.3 Purpose of the Heritage Assessment

This document has been prepared by **Buttress** and commissioned by **Cadw** to assess the potential heritage impacts of a proposed scheme of works at Caernarfon Castle's King's Gate. It is intended to reflect the national *Planning Policy Wales: Chapter 6 Conserving the Historic Environment*, including Cadw's supplemental *Managing Change in World Heritage Sites in Wales* (2017) and *Heritage Impact Assessment in Wales* (2017). It also takes into consideration the international UNESCO and ICOMOS guidance, in order to provide an appropriate level of analysis for a site with such a high level of significance. It will support a Scheduled Monument Consent and Planning and Listed Building Consent for the proposed works, as well as being circulated to relevant stakeholders.

1.4 Summary of Proposed Changes

The proposed scheme is intended to maximise the use of the spaces atop and throughout King's Gate for a more accessible and sustainable future of the monument.

2.0

Site Description & History

2.0 Site Description & History

2.1 Local Character & Distinctiveness

The relationship between Caernarfon Castle and its town is intrinsic to its significance, as outlined in the Retrospective Statement of Outstanding Universal Value (2013). The relationship is described in the *Castles and Town Walls of King Edward in Gwynedd Management Plan* (2018) as "symbiotic," which "provided economic and political benefit, and was used by Edward I to establish colonial settlement."[1] The survival of the town wall circuits establishes the clear original relationship between the walls and the Castle, and similar defensive features are seen in both, including arrow loops. Though the density of development, both within and without the town walls, is vastly different to when it was first constructed, the Castle still dominates the townscape.

2.2 Historic Overview

The following Statement is extracted from the *Castles and Town Walls of King Edward in Gwynedd Management Plan* (2018).

Caernarfon Castle and the walled town are situated on a rocky outcrop between the mouths of the rivers Seiont and Cadnant on the shore of the Menai Strait. King Edward I established the castle and the town in 1283 to consolidate his conquest of Gwynedd and it became the seat of royal government for North Wales. Tradition holds that King Edward I's eleventh child, Edward (later crowned Edward II, 1307–27), was born here in 1284. In 1301, the young prince was invested as Prince of Wales.

There was a pre-existing Norman fortification on this site and the Roman fort of Segontium lies a short distance from the castle. This was the military and administrative centre of north-west Wales throughout the Roman period and the remains of the fort can still be clearly seen. Edward I may have known that Segontium was associated with the emperor, Magnus Maximus, who, legend says, was based here as regional commander. Caernarfon's striking banded walls and polygonal towers, instead of the more usual rounded form, are widely believed to suggest that King Edward was inspired by imperial Roman architecture. Edward may also have known that Magnus Maximus appears as Maxen Wledig in Welsh mythological poetry, later recorded in The Mabinogion. In the 'Dream of the Emperor Maxen', the emperor journeys in his sleep and arrives eventually at a great castle, 'the fairest that anyone had ever seen'. Maxen sends out messengers to find the castle. First, they come to 'a great city at the mouth of the river, and a great castle in the city with great towers of different colours'. From here, they continue until they see the 'Island of Mon facing them … and they saw Aber Saint, and the castle at the mouth of the river.'[24] It is has been suggested that this may be another reason why Caernarfon, unlike the other castles, was given a prominent patterning of bands of different coloured stone.

Although the site of the Norman motte and bailey - begun around 1090 - determined the shape of the thirteenth-century castle, very little is now visible (although subsurface evidence may still be present). Nor do the buildings erected by the princes of Gwynedd between 1115 and 1283 survive. The motte was incorporated into Edward's castle and the bailey survived as the area now known as the Maes (Castle Square). The first building phase, between 1283 and 1292, created the character of the castle we see today, albeit with some nineteenth-century and early twentieth-century restoration. After the first phase of construction, Master James of St. George was moved on to work elsewhere and subsequent construction was led by Master Walter of Hereford, later succeeded by Master Henry of Ellerton.

The layout of the town with its encircling walls was also begun in 1283 and is believed to have been largely finished by 1292. It comprises eight towers and two twin-towered gateways at intervals of approximately 64m. The town is laid out on a grid pattern, much like Conwy but over a smaller area. The Menai waterfront was the first quay associated with the thirteenth-century castle and town, enabling vast quantities of building materials to be imported. It also ensured the safety of the castle's longer term supplies and underpinned the economy of the new town.

In 1294, a revolt led by Madog ap Llywelyn destroyed half the town walls and burnt the castle extensively. As soon as the revolt was quelled, a second phase of building began in 1295. The town walls were repaired by Walter of Hereford and the northern defences of the castle were completed. By 1330, the castle had largely assumed its present appearance. The incomplete Queen's Gate and King's Gate suggest that further work had been intended. One major addition to the town walls was the early fourteenth-century chapel of St. Mary (licensed in 1307), built into the north-west corner to provide a chapel for soldiers garrisoned at Caernarfon.

The castle successfully withstood sieges by Owain Glynd and his French allies in 1403 and 1404. Reports of 1538 and 1620 showed that, although the masonry was sound, roofs and floors had decayed and, in some cases, collapsed. The castle was garrisoned during the Civil War and changed hands three times. In 1660, orders were given by the government to demolish the castle but, although this was welcomed by the local authority, it was never carried out.

In successive centuries, as was typical, cottages were built up piecemeal against the walls. Later alterations to the walls included modifications to the East Gate; firstly to provide accommodation and then, in 1767, to incorporate the town hall which was built over it, though later removed in the mid-twentieth century. The need to cater for increased traffic has resulted in successive alterations to the town gates and the introduction of additional openings.

Sir Llewelyn Turner and others were responsible for a number of changes in the late nineteenth and early twentieth centuries. Turner, who was deputy constable of the castle from 1870 to 1903, was responsible for a variety of repair and restoration work to the castle itself, and also the removal of piecemeal developments built up in the castle ditch and against the castle walls.

3.0

Outline of Proposals

3.0 Outline of Proposals

3.1 Project Background

This project has emerged from a period of considered strategic review by Cadw, both in terms of Caernarfon Castle itself, and in the wider strategic context of Cadw's anticipated direction of funding.

This review identified the following strategic constraints and opportunities:

- Central funding for Cadw is likely to decline in a structured manner over coming years, as it has over previous years.
- A limited number of Cadw operated monuments generate a surplus. Caernarfon Castle is one of these.
- External capital funding opportunities were identified, linked to the tourism led regeneration of Caernarfon.
- The significance of Caernarfon Castle, specifically its Outstanding Universal Value, constrain how opportunities might be explored.

Cadw commissioned several pieces of work to strategically review how the above constraints and opportunities might manifest themselves at Caernarfon Castle. A report prepared by Donald Insall Associates (DIA) in September 2015 provides a summary of this work. It considers how challenges associated with balancing a need to improve on identified limitations to visitor facilities, with the importance of maintaining or enhancing the Outstanding Universal Value of the site, might be accomplished. The final project brief articulated within this document emerged from the DIA report.

The report looked specifically at the Great Hall area of the Castle as a potential location for a contemporary architectural intervention, providing catering, retail and WC facilities. It was identified as the only location where the scale of intervention potentially required could be accommodated.

Cadw's Monuments Development Team (MDT) reviewed the report in 2016. The consensus of opinion within the team, which includes a broad cross section of Cadw representatives, was that the Great Hall location would compromise the Outstanding Universal Value of the Castle to an unacceptable degree. The potential of the King's Gate was alternatively proffered for exploration, with the understanding that this area would be more suited to balance the requirements of functionality and significance.

The brief was therefore adapted to the King's Gate and design responses sought from suitably qualified consultant teams. The overall aims and objectives of the brief are:

- Improved access for all
- Improved visitor facilities
- Improved interpretation
- Better conditions for staff and custodians on site

3.2 Requirements of the Brief

Buttress were commissioned to provide a detailed Feasibility Study outlining creative solutions for use of the spaces within and atop the King's Gate, including access to the battlements between the Well Tower and the Granary Tower. The key outcomes to be incorporated within the scope of the study were:

- To provide options regarding the relocation of current staff facilities/storage to provide suitable space options within the current footprint of the Castle.
- Increased and improved retail space within the King's Gate area. The established Cadw brand design will need to be fully referenced.
- Options for provision of light snack and refreshments, including imaginative solutions to accommodate 36-44 seating covers.
- Options for providing an enhanced visitor experience by identifying opportunities for imaginative immersive experiences, e.g. within dungeon spaces / dressed rooms. Cadw's Interpretation team will be involved in the design process.
- Vertical access opportunities to the Battlements.
- All options must give due regard to operational and staffing considerations and the flow and management of visitors.

In addition, the study will need to:

- Consider creative solutions to improve toilet provision and accessibility within the monument.
- Provide innovative temporary weather resilience solutions, e.g. the provision of 'service stations' (water and electric supply points) over or by which Gazebos or other lightweight designed/temporary structures can be placed for seasonal use.

In response, Buttress developed a suite of options, which have been assessed for their suitability in meeting the requirements of the brief and their associated heritage impacts. The Buttress team believes that most of the above requirements can be satisfied through the proposed design concept with limited impact on Outstanding Universal Value.

Where this becomes more challenging relates to the provision of a catering offer. In order to meet the number of covers required, the covers cannot be confined to any single existing floor plate or tower. Therefore, the café offer is spread across two towers, with overflow space available in the third tower. The chosen location provides disabled access to one of the towers, with appropriate management of the space making the café offer work best across the spaces.

The Options have also been used to assess whether there is scope for the café to be sited in the Chapel area of the King's Gate. It has been determined that it is insufficient in size, that the interventions would seriously compromise the space, and that accessibility challenges, in terms of getting to this location and in terms of access around the space given the multiple changes in level, preclude this as a solution.

3.2.1 Design Development

The Design Team tested and consulted upon a variety of options for how to meet the brief and pay due dilligence to the significance of the World Heritage Site. The options that emerged throughout design development underwent an internal dynamic heritage impact assessment, and a number of complete HIAs that were submitted alongside proposals to Cadw. Some of the key site elements, such as the lift, went through a specific options appraisal to establish the most appropriate form and location for the lift. An Archaeological Building Record was also produced to better inform responses to the historic fabric. The thought processes and design outputs that fed into reaching the proposed scheme are captured in more detail in 12.0 Mitigation.

3.3 Conservation Philosophy

The aims and objectives of the conservation philosophy approach to the proposed works at Caernarfon Castle are:

- expanding knowledge and enhancing understanding of the heritage
- minimum required intervention
- potential for reversibility
- clearly legible modern fabric
- bespoke solutions based on thorough understanding of the significance of the site
- contextual material palettes based on understanding
- mitigation of past inappropriate intervention
- conservation best practice

The key concepts behind the proposed works are driven by a policy of minimum and appropriate intervention, reversibility, and respect for the "incomplete" nature of the King's Gate as captured in the OUV.

The option presented within this document has gone through many stages of revision and development within the Design Team and amongst wider stakeholders, including Cadw and Gwynedd Council. This has resulted in a scheme that is most appropriate for the significance of King's Gate, whilst also meeting the needs of Caernarfon Castle and Cadw more broadly, in direct response to their brief.

Some of the key principles of design have been consistent throughout options and variations, such as: the potential for reversibility; being demonstrably contemporary in design; and finding a solution which "slots" into the existing building and can therefore be removed. The latter is also considered a method of reversing any intervention that may be considered as "finishing" the incomplete King's Gate; the possibility remains to return it to its largely original (pre-development) state.

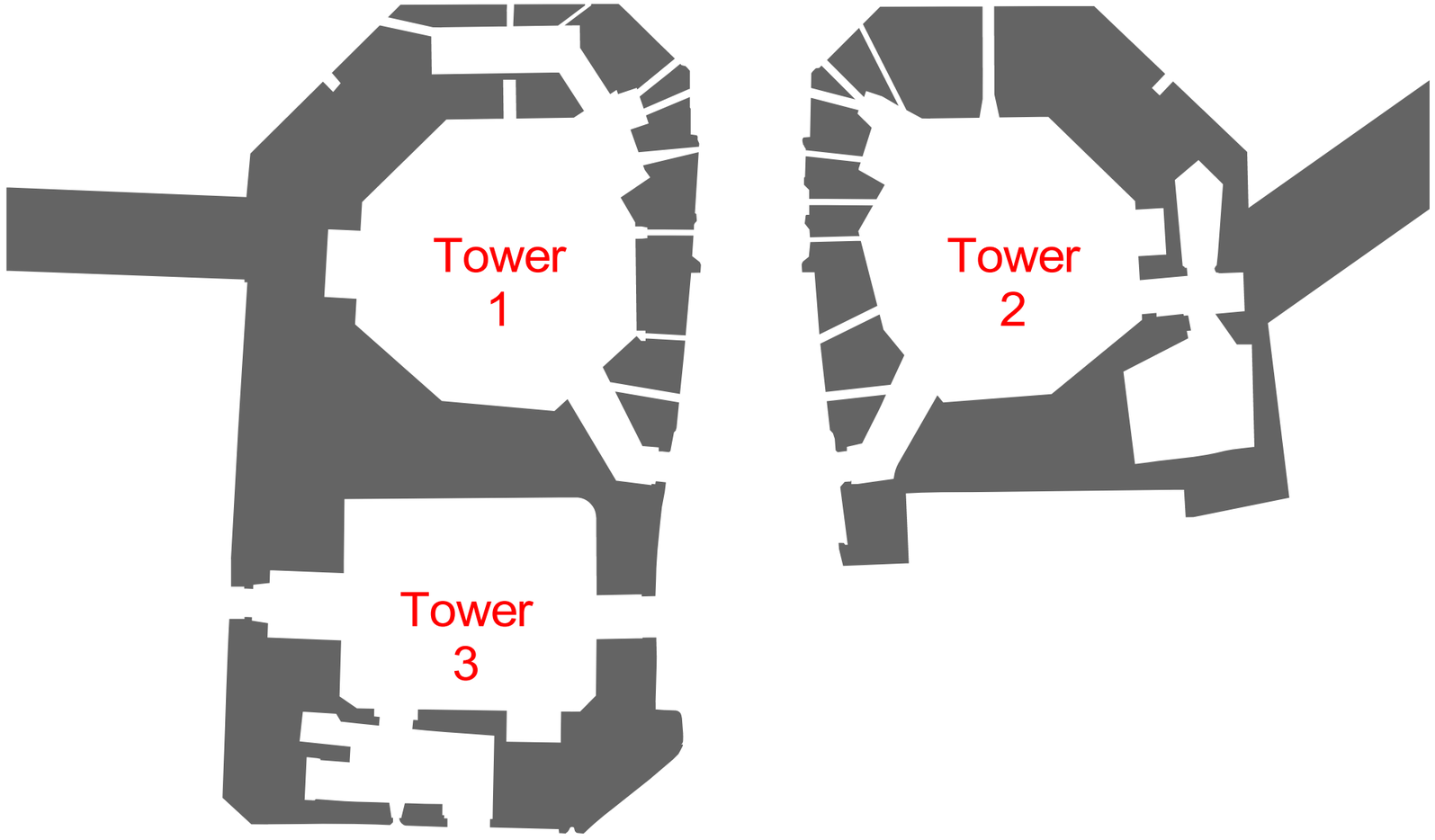


Figure 1 King's Gate Plan Identifying Individual Towers Within the Gatehouse

3.4 Proposed Scheme of Works

3.4.1 Summary of Proposed Scheme of Works

The overall physical changes proposed to the King's Gate are as follows:

- An accessible toilet in the basement of Tower 3
- Renewal of floors/ceilings throughout Towers 2 and 3
- Inserting floors into the currently void Tower 1
- Installation of a lift in Tower 1 to facilitate disabled access to the top of the gatehouse
- Flooring the top of the gatehouse to provide greater access to currently under-appreciated elements of the building at this level

These key areas of interventions are proposed without any significant removal of historic fabric. The majority of removal of fabric relates to the restoration and alteration of the building within the last 150 years.

3.4.2 Lift

The lift was identified as a key need for expanding the reach of Caernarfon's King's Gate due to the inaccessibility of the area. Due to the nature of the building, this is clearly an original design intent; however, the purpose and use of the monument has changed. An extensive options exercise was carried out to establish the most appropriate location for the lift, in both heritage and accessibility terms. It has been designed in steel and glass to minimise visual and fabric impacts wherever possible.

3.4.3 Café Offer

The café is intended to support the running of Caernarfon Castle and augment Cadw's leisure offer and financial turnover. It will encourage use of the Castle as a destination, and visitors will spend more time at the site. This has been designed to respond to the unusual shape and layout of the King's Gate.

3.4.4 Exhibition/Viewing Platform

The second floor will reconfigure the current layout, giving visitors access directly to windows and arrow loops of the King's Gate that face out over the town. Existing lead covers and narrow pathways defined by railings will be removed in order to create a deck across the whole gate. The voids of the towers below will be expressed through organically formed seating integrated into the plate, illustrating the construction of the building, whilst also increasing access and enjoyment of the space. The two voids over the Chapel will be glazed, allowing visual permeability between the two floors. Customised furniture will allow access to the windows, providing a view and an experience which is currently lacking.

The second floor of Tower 3 will also become a viewing platform. It will contain integrated seating which can be used for educational groups, tour groups, or café overflow during good weather.

3.4.5 WC

The proposed WC facilities will be located in the basement of Tower 3. It will provide 2 accessible WCs and a Changing Places WC, which will support guests to the site that require them. There is a limited number of changing places across North Wales, and it is understood that this will be the first offered by Cadw, therefore this will provide a valuable and necessary facility, and support Cadw's mission to provide informative and inclusive experiences of national heritage.

3.4.6 Shop

The shop will remain in its current location on the ground floor of Tower 3. The layout of the tower will be re-assessed with a retail consultant in conjunction with Cadw's own in-house retail team, in order to enhance the retail space and maximise the offer.

3.4.7 Staff Facilities

The basement and ground floor of Tower 2 will contain store rooms to support the management of Caernarfon Castle. The ground floor will also contain a private office for confidential meetings and financial matters.

The mezzanine floor will contain staff accommodation, maximised to make efficient use of the space.

The first floor will retain the education space, with a new layout, and additional storage to facilitate best use of this space. The education room can also be used as café overflow space during peak visitor times with no educational visits to site. This space is also available for hire, providing additional financial support .

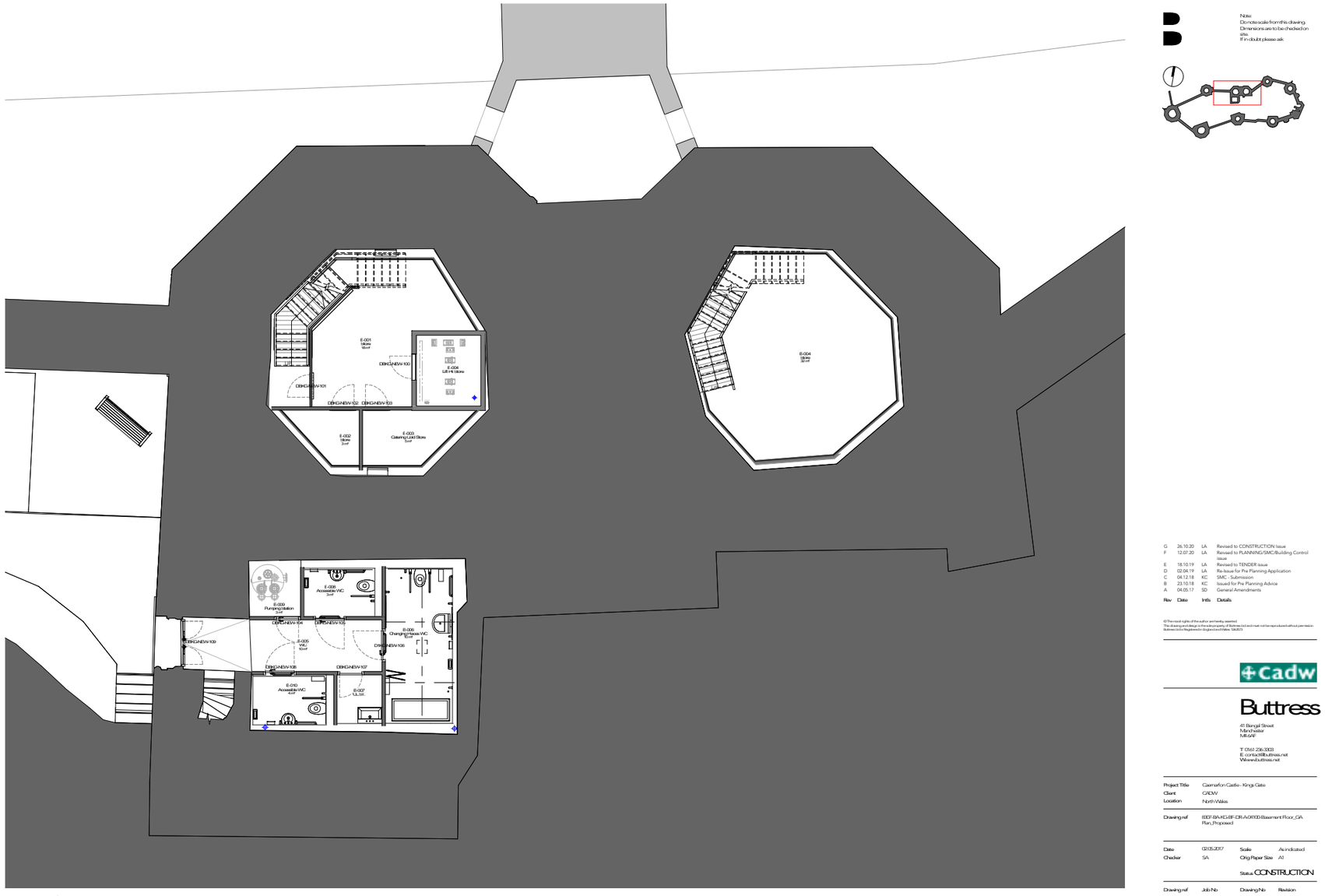


Figure 2 Proposed Basement Plan

3.5 Basement

At basement level, the proposal uses Towers 1 and 2 as storage; whilst the basement level in Tower 3 is proposed to contain WCs. It also strives to include a Changing Places room within the limited space available.

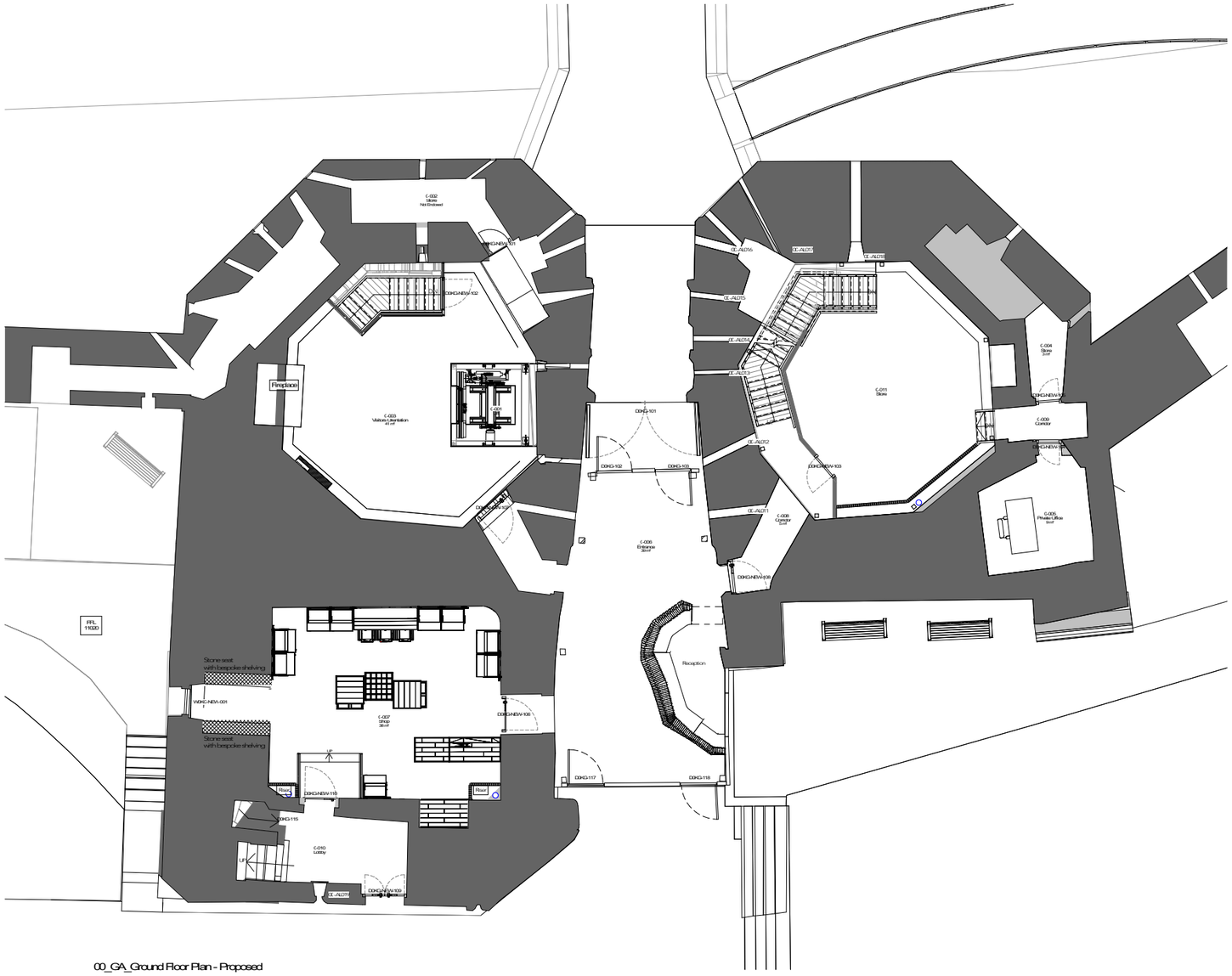


Figure 3 Proposed Ground Floor Plan

Note:
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Dimensions are to be checked on site.
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Rev	Date	Initls	Details
G	26.10.20	LA	Revised to CONSTRUCTION Issue
F	12.07.20	LA	Revised to PLANNING/SMC/Building Control Issue
E	18.10.19	LA	Revised to TENDER issue
D	02.04.19	LA	Re-Issue for Pre Planning Application
C	04.12.18	KC	SMC - Submission
B	23.10.18	KC	Issued for Pre Planning Advice
A	04.05.17	SD	General Amendments

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+cadw

Buttress
41 Bengal Street
Manchester
M4 6AF

T 0161 236 3303
E contact@buttress.net
W www.buttress.net

Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	North Wales
Drawing ref	8307-BA-XG-GF-DR-A-00101-Ground Floor_GA Plan_Proposed
Date	02.05.2017
Checker	SA
Scale	As indicated
Orig Paper Size	A1
Status	CONSTRUCTION

Drawing ref	Job No	Drawing No	Revision
	8307	(04) 101	G

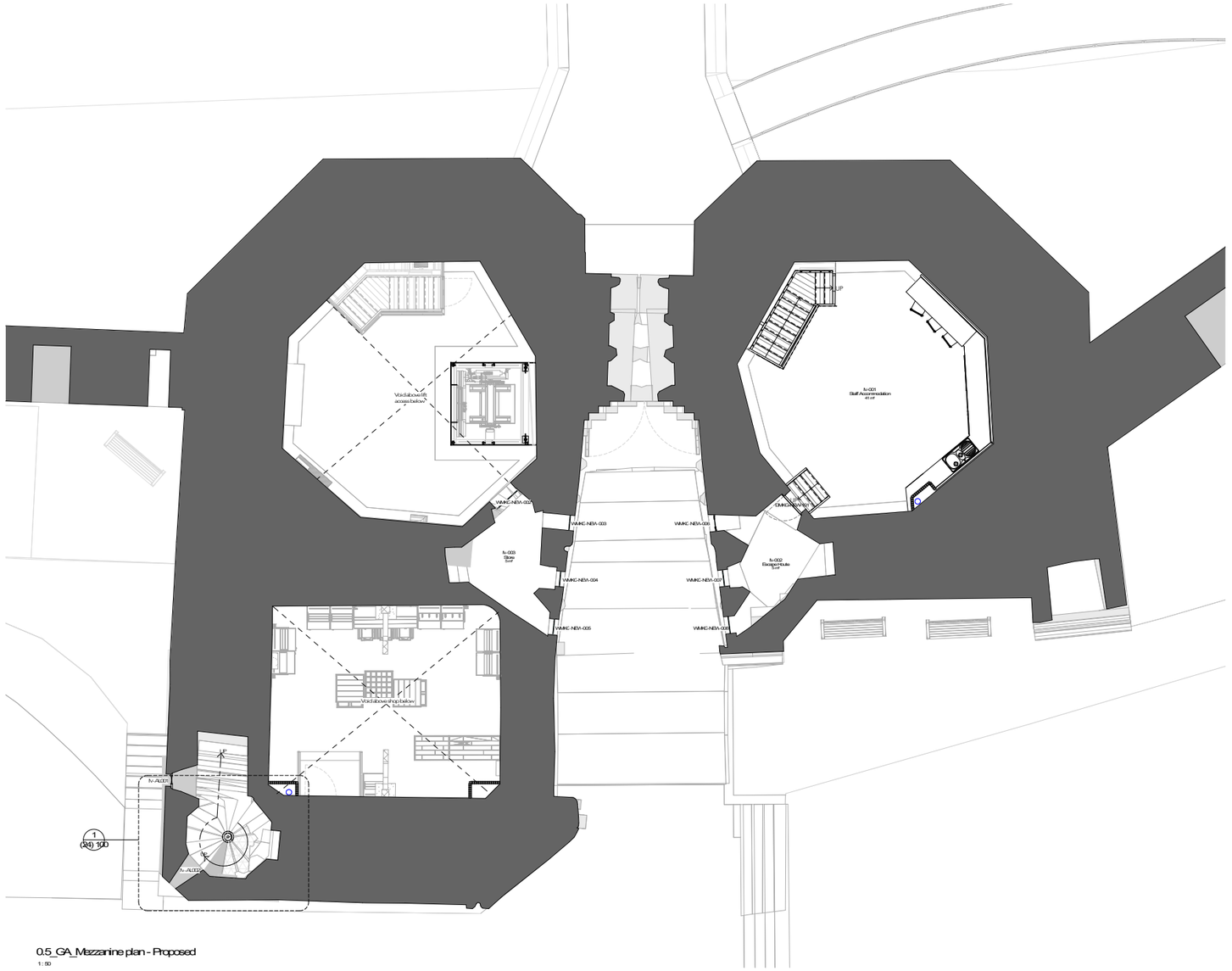
3.6 Ground Floor

The ground floor of Tower 1 will provide visitor orientation and lift access to all levels for visitors with access requirements; and for service use relating to the facilities within the tower. The lift will also be able to take visitors to the new viewing platform at Level 2, which is currently inaccessible to those in wheelchairs or with other mobility issues. The space around the lift at ground floor level will include visitor orientation.

Ground floor in Tower 2 will mainly be used for storage, with a small private office to be used for finance purposes or small confidential meetings.

The shop is retained in Tower 3. A retail consultant will assess and reconfigure the space in order to provide a better visitor experience and enhance the retail capacity where possible.

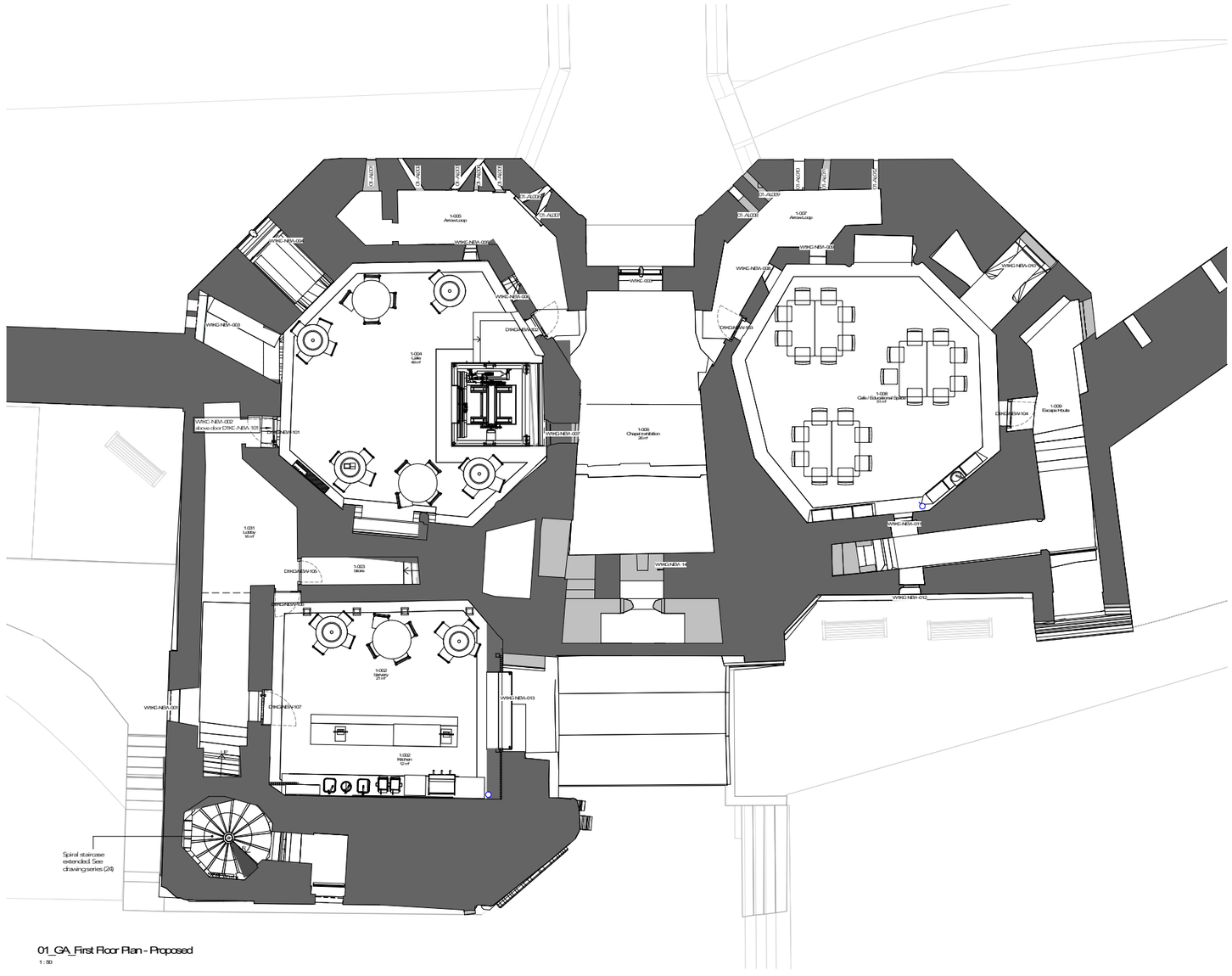
The existing glass box alterations at the entrance will be retained. A new reception desk will be installed to maximise space and provide visual indication of the visitor flow around the site. It is intended that the reception desk will be re-used from the temporary ticket desk from Eagle Tower.



3.7 Mezzanine

The mezzanine in Tower 2 will provide principal staff accommodation space, with furniture better responding the unusual space of the room, and in particular any historic features that may be present. Though this will not be accessible to the public, it will serve to reveal some elements that have previously been hidden in earlier stages of work.

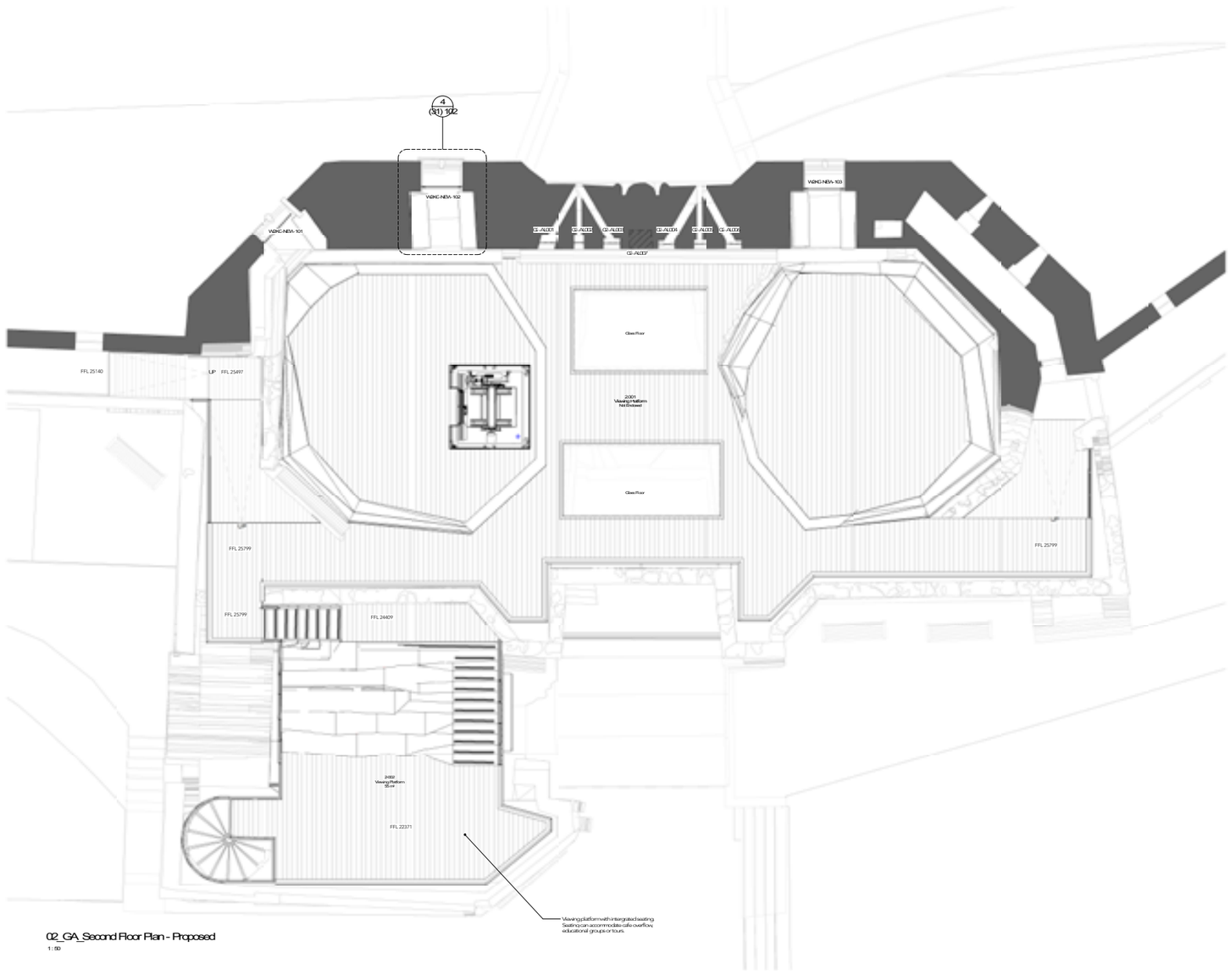
The staircase has been configured to better respond to the shape of the tower, and also maximise usable floor space.



3.8 First Floor

The café offer will be provided at first floor across all three towers. Tower 3 will contain the servery and a limited number of covers. Guests can move through the King's Gate to a seating area in Tower 1. At peak times, the education space in Tower 2 can also be used for café overflow.

The Chapel space will have some glass insertions to create a more hospitable and safe space, incorporating some weather protection. However, it is proposed that the glass will be a form of interpretation, representing both the spiritual and military purpose of the space. These details will be proposed by the interpretation designer. This will also enhance views towards the town, without obscuring the experience or understanding of the space.



02_GA_Second Floor Plan - Proposed
1 : 50

Figure 6 Proposed Second Floor Plan

Note:
Do not scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask

0.5 0 0.5 1 1.5 2 2.5
SCALE 1:50 m

Rev	Date	Initls	Details
H	26.10.20	LA	Revised to CONSTRUCTION Issue
G	12.07.20	LA	Revised to PLANNING/SMC/Building Control issue
F	29.06.20	LA	Amendments to TENDER Issue
E	18.10.19	LA	Revised to TENDER issue
D	02.04.19	LA	Re-Issue for Pre Planning Application
C	04.12.18	KC	SMC - Submission
B	23.10.18	KC	Issued for Pre Planning Advice
A	04.05.17	SD	General Amendments

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Cadw

Buttress
41 Bengal Street
Manchester
M4 6AF

T 0161 236 3003
E contact@buttress.net
W www.buttress.net

Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	North Wales
Drawing ref	8307-BA-XG-2F-DR-A-00104-Second Floor_GA Plan_Proposed

Date	02.05.2017	Scale	As indicated
Checker	SA	Orig Paper Size	A1
		Status	CONSTRUCTION

Drawing ref	Job No	Drawing No	Revision
	8307	(04) 104	H

3.9 Second Floor

The second floor will primarily be used as a viewing platform, which will be accessible via wall walks as it is currently, via the extended historic staircase with Tower 3 staircase, and via the lift when guests require it. This will open up the amount of available space for dwelling at this level, which is currently limited to a narrow pathway from the wall walks. For wheelchair users, the lift means they will be able to access some sections of the wall walks for the first time.

Visitors will be able to freely perambulate this level, facilitating access to areas that have remained beyond the reach, such as the windows overlooking the town. These will also have some minor interventions to facilitate comfortable access and provide some weather protection. The shape of the towers will be expressed in the new deck by creating areas of seating that will encourage dwelling time. These will mimic organic shapes, and - in places - will allow the stone build ups and alterations beneath to come through. This will be echoed in the seating area of Tower 3, which will be accessible by the spiral staircase and a new staircase from the top deck when required. This spiral staircase is currently unfinished, but it will be adapted with a new modern insertion to make the space available.

The voids to the Chapel will be switchable smart glass, making the area walkable but still providing a view and understanding of the double height space.

A glass balustrade will replace the current metal one around the perimeter of the whole of the top level until it meets the wall walks, and the edge around Tower 3.

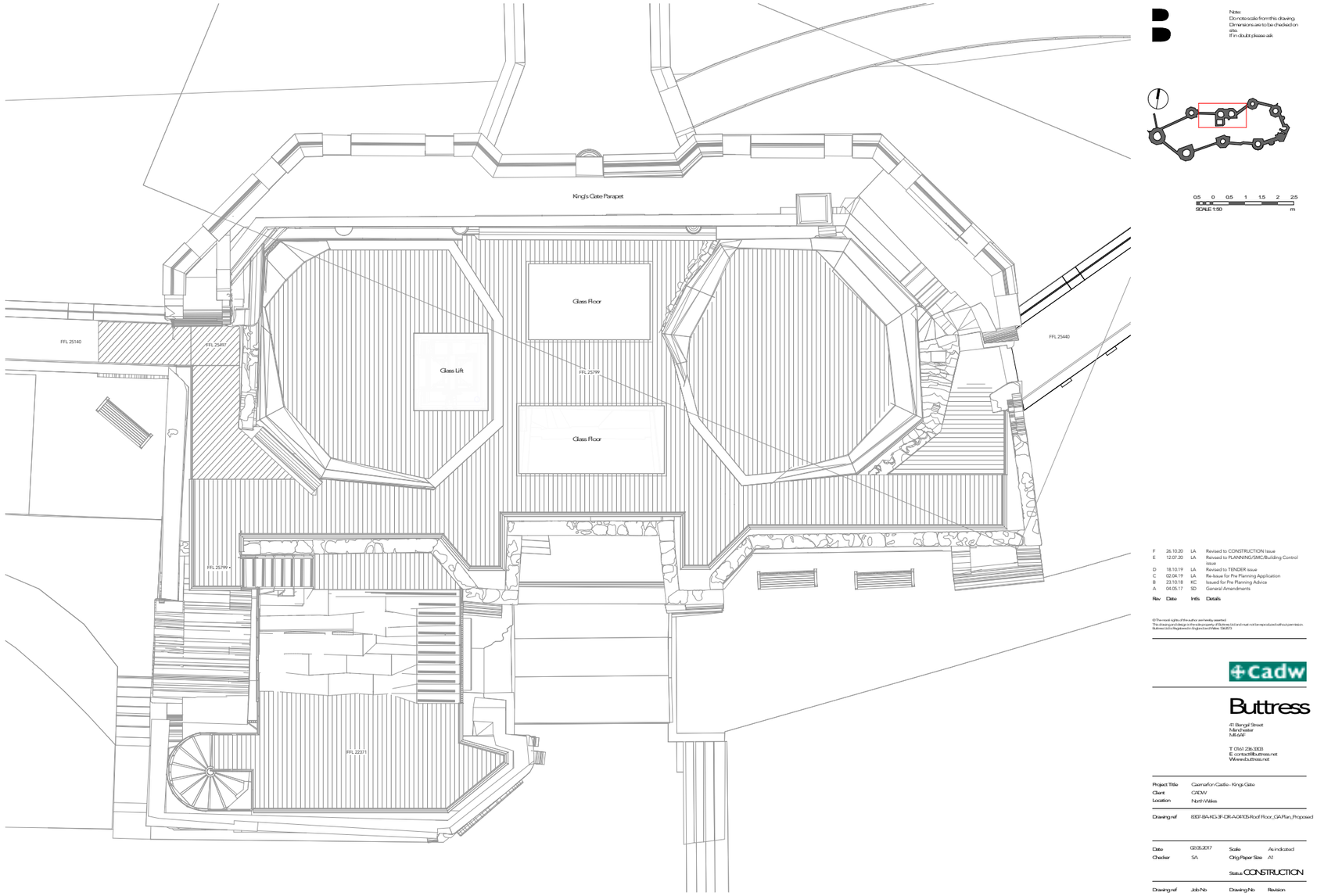


Figure 7 Proposed Roof Plan

3.10 Roof

The roof level represents to the top of the lift and the top of the King's Gate parapet which is remaining unchanged as part of the scheme.

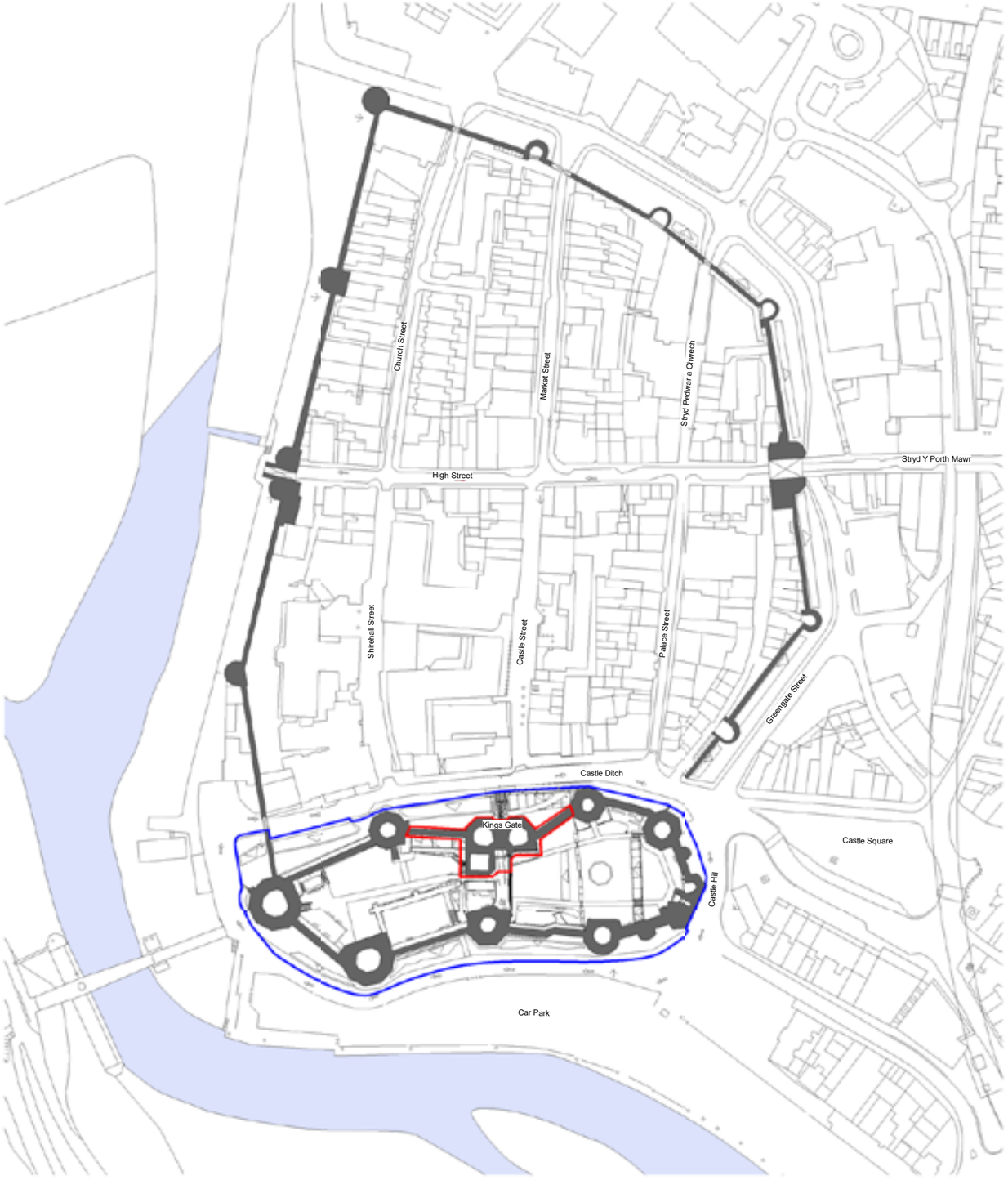


Figure 8 Assessment area: boundary of Caernarfon Castle in blue, boundary of proposed scheme in red.

4.0

Existing Baseline Conditions

4.0 Existing Baseline Conditions

4.1 Introduction

The existing baseline conditions set out the information, both historical and contemporary, that informs the management of the World Heritage Site. This includes Caernarfon Castle itself as an asset, but also other heritage assets that could be both directly and indirectly impacted by change within the World Heritage Site.

The attributes relating to OUV are considered to be one of the most important aspects of baseline data for this report. As they require further detail, they have been separated out into 5.0 Attributes of Outstanding Universal Value

4.2 Definition of the Assessment Area

Caernarfon Castle and its associated Town Walls are component parts of the wider World Heritage inscription for the Castles and Town Walls of King Edward in Gwynedd. Therefore, the whole Caernarfon Castle site is included within this inscription, the boundary of which is indicated in blue. The proposed scheme is entirely contained within the footprint of the King's Gate (illustrated in red).

As such, the principal assessments of heritage impact are focused on this area. However, impacts on the wider site, and the wider inscription, will also be explored.

4.3 Castles and Town Walls of Edward I World Heritage Site

The Castles and Town Walls of Edward I World Heritage Site has been inscribed on the list since 1986. The designation covers four castles across Gwynedd: Caernarfon, Conwy, Harlech and Beaumaris. The significance of these castles and the reasons for their inclusion on the list is explored in 5.0 Attributes of Outstanding Universal Value. There is no officially adopted buffer zone for Caernarfon Castle. However, key views and setting are controlled in the Management Plan, and further statutory protections, such as Conservation Area designation, exist to provide an additional cushion to the setting. The Castles at Conwy, Beaumaris and Harlech will be referenced as part of the assessment, given they are part of the World Heritage Site, although their distinct geography limits the direct impacts that the proposals might have.

The Castles of Gwynedd World Heritage Site was inscribed under the following criteria:

(i) to represent a masterpiece of human creative genius;

(iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

As World Heritage status is the highest level of designation, this information is considered to best encapsulate the historic and cultural significance of the King's Gate and Caernarfon Castle more widely, and is reproduced here for baseline information.



Figure 9 World Heritage Site Boundary - Archwilio

The following Statement is extracted from the Castles and Town Walls of King Edward in Gwynedd Management Plan (2018).[2]

4.4 Statement of Outstanding Universal Value

At the time of inscription, a statement of significance was produced for the World Heritage Site. Subsequently, in line with Article 1 of the UNESCO Convention Concerning the Protection of World Cultural and Natural Heritage, all existing World Heritage Sites were asked to produce a Statement of Outstanding Universal Value. The retrospective Statement of Outstanding Universal Value for the Castles and Town Walls of King Edward in Gwynedd World Heritage Site was adopted by the UNESCO World Heritage Committee in 2013. [Once adopted, this statement has become the baseline used by the UNESCO World Heritage Committee, the UNESCO World Heritage Centre, and ICOMOS International.]

4.4.1 Brief Synthesis

The four castles of Beaumaris, Caernarfon, Conwy, Harlech and the attendant fortified towns at Caernarfon and Conwy are the finest examples of late thirteenth-century and early fourteenth-century military architecture in Europe, as demonstrated through their completeness, pristine state, evidence for organised domestic space, and extraordinary repertory of their medieval form.

The castles as a stylistically coherent group are a supreme example of medieval military architecture designed and directed by James of St. George, King Edward I of England's chief architect, and the greatest military architect of the age. The extensive and detailed contemporary technical, social and economic documentation of the castles, and the survival of adjacent fortified towns at Caernarfon and Conwy, make them one of the major references of medieval history.

The castles of Beaumaris and Harlech are unique artistic achievements for the way they combine characteristic thirteenth-century double-wall structures with a central plan, and for the beauty of their proportions and masonry.

4.4.2 Criteria for Inscription

Criterion (i) to represent a masterpiece of human creative genius

Beaumaris and Harlech represent a unique achievement in that they combine the double-wall concentric structure, which is characteristic of late thirteenth-century military architecture, with a highly concerted central plan and in terms of the beauty of their proportions and masonry. These are masterpieces of James of St. George who, in addition to being the king's chief architect, was constable of Harlech from 1290 to 1293.

Criterion (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared

The royal castles of the ancient principality of Gwynedd bear a unique testimony to construction in the Middle Ages in so far as this royal commission is fully documented. The accounts by Taylor in Colvin (ed.), The History of the King's Works, London (1963),[18] specify the origins of the workmen, who were brought in from all regions of England, and describe the use of quarried stone on the site. They outline financing of the construction works and provide an understanding of the daily life of the workmen and population and thus constitute one of the major references of medieval history.

Criterion (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

The castles and fortifications of Gwynedd are the finest examples of late thirteenth-century and early fourteenth-century military architecture in Europe. Their construction, begun in 1283 and at times hindered by the Welsh uprisings of Madog ap Llewelyn in 1294, continued until 1330 in Caernarfon and 1331 in Beaumaris. They have only undergone minimal restoration and provide, in their pristine state, a veritable repertory of medieval architectural form: barbicans, drawbridges, fortified gates, chicanes, redoubts, dungeons, towers and curtain walls.

4.4.3 Integrity

The individual castles possess a high degree of integrity with the coherence of their planning, design and quality of construction being undiminished.

The four castles include all the medieval defensive structures within the property boundary, but not the planned settlements or waterfronts. All the defensive attributes are within the boundary of the World Heritage Site, but as the towns were an integral part of their defensive, administrative and economic arrangements, and their waterside position contributed to their defence and trade, the full range of attributes could be seen to extend beyond the narrow boundaries.

The essential relationship between each castle and their coastal landscape remains intact and in two cases the intimate interrelationship of castle and town remains a striking feature of the present-day urban landscape. Although there is no formal buffer zone, the value of the wider townscape, the essential setting, and significant views from each castle are incorporated into the management plan.

Potential threats to the integrity of the site could come from unsympathetic development on the town/landward side of the castles, but also from coastal or off-shore development within the setting of the castles. There is a need to protect the setting of the castles to ensure their relationship with their hinterland and coast remains undiminished.

4.4.4 Authenticity

The authenticity of all four medieval castles and of the two town wall circuits has been maintained, despite some reconstruction in the late nineteenth century at Caernarfon. During the last 100 years, the conservation of the castles and town walls has been undertaken following the philosophy of 'conserve as found', with minimal intervention or intrusive modification. The plans, form, materials and component features of the castles are largely unaltered from their medieval form. They clearly still display the wide repertory of medieval architectural forms, including barbicans, drawbridges, fortified gates, chicanes, redoubts, dungeons, towers and curtain walls.

The town walls at Caernarfon and Conwy remain largely unchanged and provide an exceptionally rare, almost complete, enclosure of their historic townscapes.

The overall setting of the four castles remains largely intact — with the exception of development on the Morfa at Harlech and some new development at Victoria Dock in Caernarfon — and thus they retain their ability to present very clearly their scale, defensive power and intimidating presence, as well as their beauty and prominence in the coastal landscape.

While the design and construction of the castles and town walls were the responsibility of the Master of the King's Works, the provision of funds and the control of expenditure were in the hands of the king's Wardrobe, part of the king's household with responsibility for spending. This group travelled with the king and was based in Conwy throughout the years in which direct royal control was consolidated over Gwynedd. The Wardrobe maintained detailed records of payments made for the works. Although some have been lost (notably those destroyed during the rebellion of 1294), the remainder are held in The National Archives at Kew in London and have been studied in detail by historians such as Arnold Taylor in The King's Works in Wales 1277–1330.

4.4.5 Protection and Management Requirements

The UK Government protects World Heritage Sites by the statutory protection of individual site and buildings and by spatial planning and guidance. The four castles and two town wall circuits are protected by statutory scheduling as monuments of national importance and by being in State care. As such, they are maintained by the relevant conservation body within government according to current conservation principles. All four are protected by local plans, planning guidance and their World Heritage management plan which is reviewed regularly. Harlech is within the Snowdonia National Park, while all four are within conservation areas that cover the immediate setting of the castles and town walls. Their wider setting has been defined as 'essential settings' and key views are protected. Evaluation of boundaries will be undertaken as part of the management plan review process.

These measures combine to ensure that the castles are subject to rigorous controls over development that could potentially impact upon them or their setting. Shoreline Management Plans and the Environment Agency's Flood Risk Assessments help protect the sites from coastal erosion or unsympathetic coastal development, thus keeping intact the important coastal views and sight lines.

Tourism and visitor management is directed by the Welsh Government's Historic Environment Strategy and implemented through the World Heritage Site management plan, which includes policies for promotion, access, interpretation and visitor management.

The World Heritage Site Steering Group, which includes the participation of site owners, local authorities, government and the general public, has responsibility for the implementation of the management plan that ensures that conservation, development control, educational use and public accessibility is maintaned.

4.5 Key Attributes

An important element of managing World Heritage properties is the identification of the attributes of Outstanding Universal Value of each property. These are the features or relationships which are evidence of OUV and are more easily managed on the ground than the more abstract definition of OUV.

Following the adoption of the RSOUV by the World heritage Committee in 2013, Cadw have defined the attributes of OUV from that statement.

These provide much of the basis for assessing the impact of proposed development in or near World Heritage properties. The attributes of OUV for King Edward's castles are identified in 5.0 Attributes of Outstanding Universal Value.

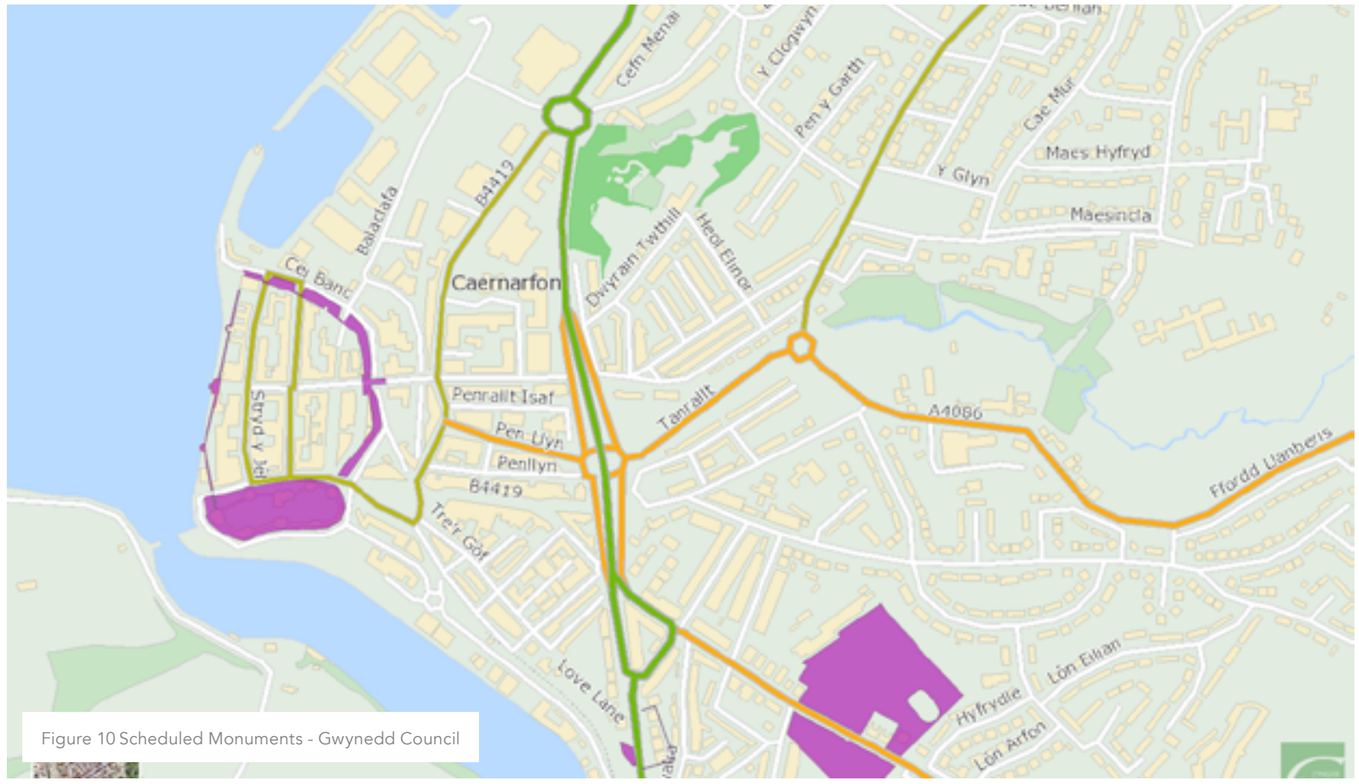


Figure 10 Scheduled Monuments - Gwynedd Council

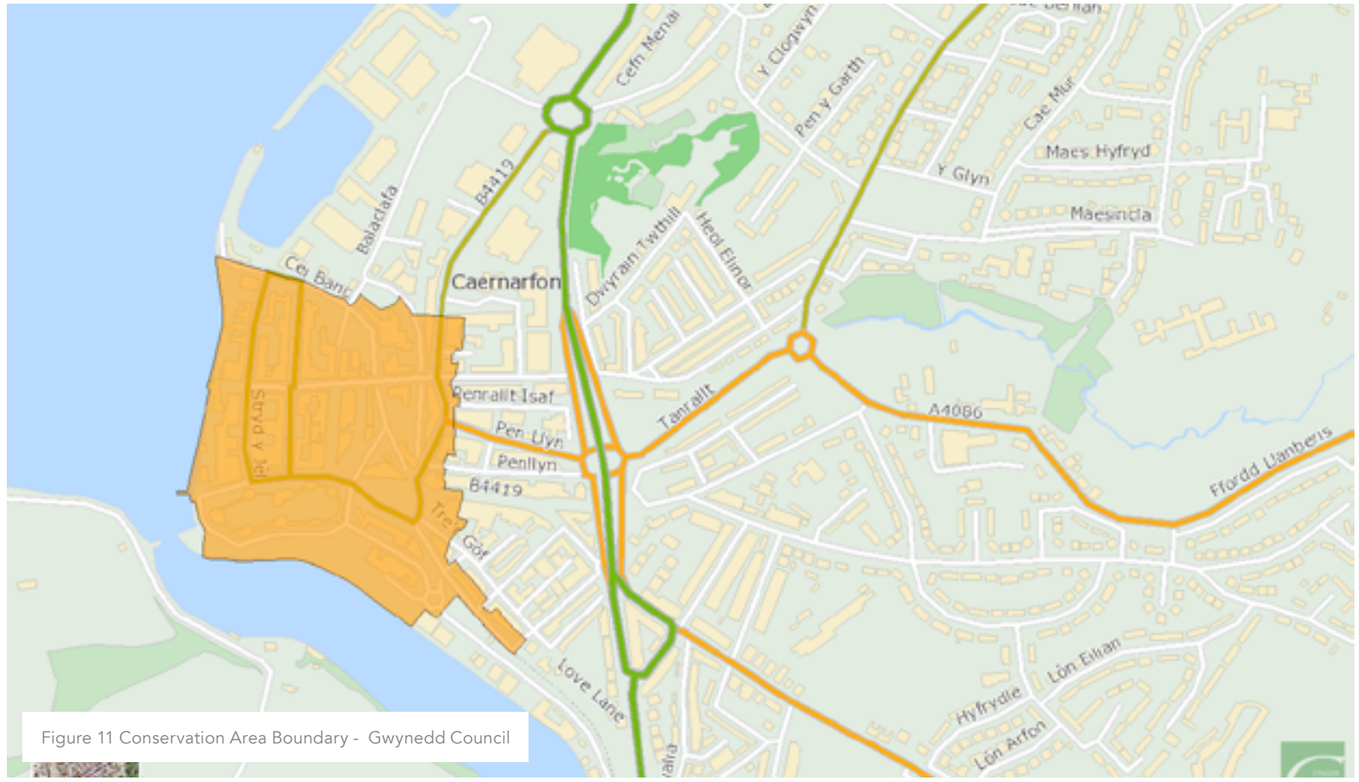


Figure 11 Conservation Area Boundary - Gwynedd Council

4.6 Additional Designated Sites & Monuments

4.6.1 Scheduled Monument

The castle and town walls are designated separately as Scheduled Monuments as demonstrated in Figure 10, though they are inextricably linked. The castle is considered to be nationally and internationally significant due to its potential to inform understanding about domestic, political, and military life in Wales. Its imposing scale and aesthetic character are also cited as important, setting it apart even from its sister-sites within the WHS. The Scheduled Monument also covers an area outside the castle walls in order to protect any unknown buried archaeology. Equally, the town walls are also of national and international importance, particularly due to its relationship with the development of the town, and its potential to contain physical archaeological evidence or indications regarding chronology and building techniques. Like the castle, the town walls designation covers an area immediately outside the structure to account for potential below ground archaeology.

4.6.2 Conservation Area

The Castle and the town walls fall within the Caernarfon Conservation Area, as demonstrated in Figure 11.

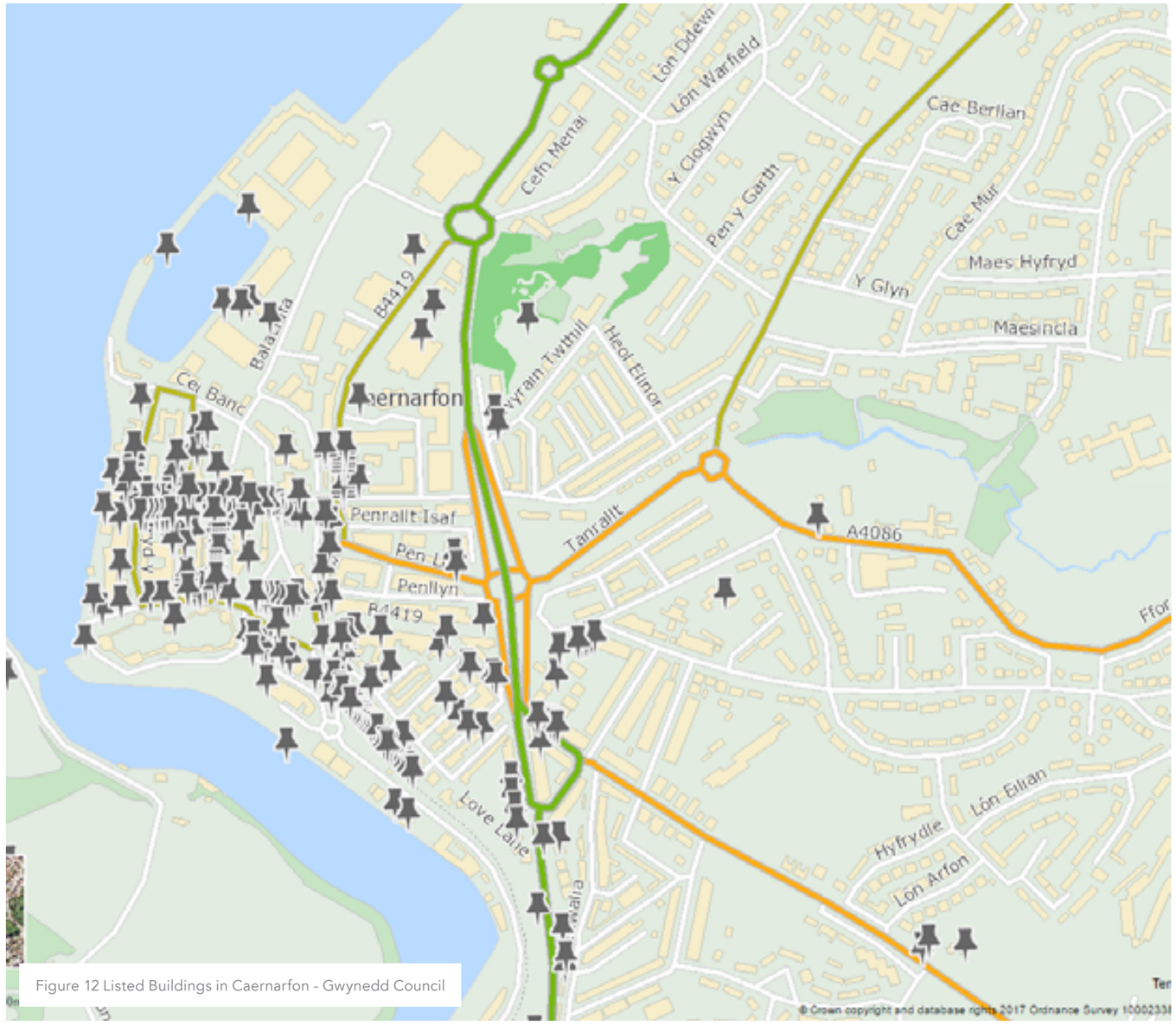


Figure 12 Listed Buildings in Caernarfon - Gwynedd Council

4.6.3 Listed Buildings

The castle was designated as a Grade I listed building in 1983. There are approximately 2,400 listed buildings in Gwynedd, and more than 200 in the immediate vicinity of the Castle, demonstrated in Figure 12.

4.6.4 Registered Parks & Gardens

There are no registered parks are gardens within the assessment area.

4.6.5 Other Sites

Coflein contains a considerable inventory of sites within the World Heritage Site and Conservation Area that have the potential to be affected by changes at the Castle. Due to the location of the assessment area, and the small likelihood of a major or moderate change to an asset of particular significance, these have been included for reference in 16.1 Inventory of Assets.

4.7 Historic Building Survey and Record

A Historic Building Survey and Record was carried out in accordance with Historic England's Understanding Historic Buildings guidance, in lieu of the adoption of guidance from the Royal Commission.

This work was led by Chris Wild (BSc), project manager at Salford Archaeology, and is - at the time of writing - potentially the most important piece of baseline information available for this assessment of heritage impacts.

The survey has been carried out on all currently accessible areas of the King's Gate, and provides the most thorough understanding of the history, development and function of the Gate within Caernarfon Castle to date. It forms the basis of greater understanding of the King's Gate, supporting understanding of the significance of this structure in the context of the significance inscribed by UNESCO. It is reproduced for reference in 16.8 Salford Archaeology. The King's Gate Historic Building Investigation Interim Report, Caernarfon Castle, Caernarfon Archaeological Evaluation. 2017.

The executive summary of the interim report is reproduced here for information:

The historical building investigation has been devised as a two-phase process, comprising an initial survey of the currently accessible parts of the King's Gate, with a second phase to follow the proposed soft strip of the monument, which will reveal more of the historic fabric, and provide safe access to areas that are currently inaccessible. This report sets out the results from the initial phase of fieldwork, combined with an overview of the wealth of documentary sources available, and a brief discussion of this initial analysis.

The King's Gate forms the entrance into the castle from the walled town, and represents an imposing visual monument to the military might demonstrated by Edward I in North Wales in the late-thirteenth century. It comprises four main phases of construction, comprising only the lowest part of the basement level within the

original fortification of 1283. Following a Welsh uprising led by Madog ap Llywelyn in 1294/5, a second phase of construction, appears to have comprised the completion of the ground and first floors of the King's Gate, probably completed by 1304. Work appears to have stalled until the following decade, when activity was resumed within the castle, almost certainly including the completion of the second floor of the King's gate by 1320. The final phase of medieval construction appears to have ended around 1330, with what appears to have been intended as a large hall, left incomplete at the upper level of the King's Gate.

Two further important phases are visible within the extant fabric, relating to repairs undertaken in the mid-nineteenth century under the direction of the architect Anthony Salvin, and around the turn of the twentieth century by the deputy constable of the castle, Sir Llewelyn Turner. Both phases represent early and important attempts at historic monument conservation.

4.8 Visitor Experience and Audience Development Research Report

In order to establish a baseline of information regarding non-specialist understanding of the Castle and King's Gate, and therefore the potential for appropriate management of change to preserve and enhance community understanding of the asset, The Audience Agency were commissioned to carry out a Visitor Experience and Audience Development Research Report which is reproduced in 16.13. This report aimed to explore the current visitor experience, the perceived barriers to access and understanding. In particular, the research objectives were:

- Understand the importance of World Heritage Site attributes to the visiting audience, how they feel about them, and how they experience them
- Produce a picture of visitors' understanding of and interest in the wider historical significance of Caernarfon Castle
- Generate a detailed understanding of current visitors; including who they are, their motivations and drivers for visiting and the information sources they use
- Build an understanding of how attenders currently use and explore the Castle, how they engage with the exhibits and interpretation, and how they feel about their visitor experience
- Identify the barriers to attending for both local residents and visitors from across Wales, excluding Cardiff
- Identify target audiences for future development, and provide insight to support the development of strategies for engaging with current non-visitors.

This was carried out using three approaches:

1. A face-to-face quantitative survey with visitors
2. Qualitative visitor journey mapping with current visitors
3. A quantitative panel survey to gather information from non-visitors.

4.8.1 Key Findings

The key findings, extracted from the Audience Agency report, are included here for information.

Importance of World Heritage Site attributes

- Most respondents were unaware that Caernarfon Castle is a World Heritage Site.
- On learning of the Castle's world heritage site status most respondents thought that the inscription would ensure the longevity and preservation of the Castle for future generations, as well as maintain its reputation.
- A small minority stated that the Castle's world heritage site status was not a motivating factor to visit.
- Most respondents had little or no knowledge of Welsh history and castles (74%), 24% characterised themselves as having a general knowledge.

Reasons for visiting

- In line with previous research a key reason for visiting was doing so as part of a holiday, day trip or tour.
- Another key motivation was a prior interest in castles, Welsh history or heritage in general.

Experience rating

- The overall experience ratings were highly positive. 99% of the face-to-face survey respondents rated their overall experience as 'very good' or 'good'. The visitor journey mapping participants gave it an average rating of 8.63/10.

Key features that resonated with visitors

- Military features (arrow loops, murder holes, and the drawbridge were cited) that were easily recognisable and allowed visitors to engage with the history of the Castle.
- Domestic features, particularly the preservation of the bedchamber in the Eagle Tower (rated highest for both engagement and presentation in the visitor journey mapping).
- Respondents engaged strongly with aspects of the Castle that they thought were the best presented. For example, 85% of survey respondents noticed the Well Tower and 66% found it to be an important part of their experience.

Interpretation

- Respondents actively sought interpretation of the Castle's features and the quantity and quality of information made a marked difference to their enjoyment, understanding and general experience rating. Respondents cited lack of information/interpretation placed at key points near each main feature as a barrier to enjoyment.
- Interpretation around Eleanor of Aquitaine, King Edward's Head and the Chess presentation were cited as increasing engagement and enjoyment.
- Respondents stated that they were often unsure whether they had covered all of the Castle, where they had been or what was still to be explored.

Improving the visit experience

- Visitor journey mapping participants identified the main developments that would improve their visit experience:
  - modernisation (particularly in provisions for children, suggestions can be found below).
  - more information around the site particularly at the point of key features better site navigation/signage.
- However, although respondents wanted a more interactive experience, they would not like to see too many signs or a level of interpretation that would disrupt the historic experience or interfere with the fabric of the Castle.

Perceptions and expectations of non-visitors (Panel survey)

- 96% of respondents had heard of Caernarfon Castle.
- Respondents expect the Castle to be 'well-preserved', to be descriptive of Welsh history, to be a good day out with the children and to be part of a wider day out in North Wales.
- 'Historical' (76%), 'Interesting' (67%) and 'traditional castle' (55%) were the words chosen most frequently by respondents to describe their expectations of Caernarfon Castle.
- 65% of respondents said that the main thing they expect to be able to see at the Castle are stories about its history.
- Over half (61%) of respondents said that they expected a café, and 53% expected information and displays about the domestic life of the Castle's former inhabitants, in addition to a gift shop (52%).

Main reasons for not visiting (Panel survey)

- Overall, lack of time emerged as the key reason for not having visited the Castle, with the cost of entry and distance from the Castle as two emerging factors.
- A number of respondents cited problems with parking in Caernarfon as a key reason for not visiting.
- Only a small proportion of respondents (5%) said that they would definitely not consider visiting the Castle, with a lack of interest in castles given as the main reason for this response.

Potential for developing new audiences

- Respondents indicated medium and frequent levels of engagement with leisure activities, alongside a high level of interest in museums and heritage and a strong likelihood of considering a visit to Caernarfon Castle in particular.
- The top three Audience Spectrum segments represented among respondents all show a particular preference for visiting heritage sites.
- 52% said that they would consider a visit to the Caernarfon Castle.
- The main reasons respondents said they would visit the Castle in the future was an interest in Welsh history (41%) or for an outing with family and friends (38%).
- 71% of respondents had been to a significant North-Wales attraction in the last five years, and the screening survey ensured that all had engaged in leisure activities in the last 12 months.
- 58% of respondents said they participated in leisure activities outside the home at least once a month.
- 37% of respondents gave 'to have a relaxing day out' as a motivation to take part in leisure activities; this was the most prominent driver, alongside 'spending time with friends and family' (35%), and 'to enjoy the atmosphere' (28%).
- 27% of respondents said that 'to do something new or out of the ordinary' is a motivator, with 25% citing 'to escape from everyday life' as a driver to engage.

4.9 International Policy Context

4.9.1 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage 1972

The 1972 convention sets out the standard requirements for the selection and protection of monuments, places, and sites of universal value. The articles outline appropriate principles, technical requirements and legal framework for the protection of international cultural heritage. It also outlines the duties of a States responsibility for the protection and conservation of heritage of Outstanding Universal Value in Article 4:

Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

The convention was ratified by the United Kingdom in May 1984.

4.9.2 UNESCO The Operational Guidelines for the Implementation of the World Heritage Convention (2019)

The Operational Guidelines facilitate the implementation of the World Heritage Convention, most relevant in this case for its procedures laid out in Section IV on the protection and conservation of World Heritage, Section V on reporting, and Section VI on encouraging support for the World Heritage Convention, including awareness raising and education.

The Operational Guidelines states that the production of 'impact assessments for proposed interventions are essential for all World Heritage Properties.'[3] Section 118 also states that

'These assessments should serve to identify development alternatives, as well as both potential positive and negative impacts on the Outstanding Universal Value of the property and to recommend mitigation measures against degradation or other negative impacts on the cultural or natural heritage within the property or its wider setting. This will ensure the long-term safeguarding of the Outstanding Universal Value, and the strengthening of heritage resilience to disasters and climate change.'[4]

This clearly incorporates assessment of impacts on OUV as key to the methodology, and recognising that proposed interventions have the potential for long-term sustainability of cultural heritage. This is supported by Section 12 which encourages broader and more inclusive access to heritage.

4.9.3 UNESCO Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Contention* (2015)

The policy document explains in the introduction outlining the need for the policy that State Parties should 'ensure an appropriate and equitable balance between conservation, sustainability and development, so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities.'[5]

The policy asks State Parties to consider the following forms of sustainable development: environmental sustainability (including conservation), inclusive social development, and inclusive economic development. The final topic incorporates promoting economic investment and quality tourism, and encourages State Parties, amongst other things, to

i. 'Develop and promote inclusive and equitable economic investments in and around World Heritage properties that make use of local resources and skills, preserve local knowledge systems and infrastructures, and make local communities and individuals, including marginalised populations, the primary beneficiaries of these investments;'[6]

4.9.4 ICOMOS, The Burra Charter 2013

The Burra Charter is intended to set a practice standard for the conservation of heritage assets. It applies to work undertaken, decision making, and management.

The process is underlined by a thorough understanding of the heritage significance, development of appropriate policy, and actioning these policies. The articles outline key principles to inform decision making.

Article 15 relates to change and indicates that it is accepted that change can be necessary to retain cultural significance. However, presumption is that change should not reduce cultural significance. Changes that do reduce cultural significance should be reversible and temporary. Demolition is accepted where it is part of a scheme of conservation.

Article 22 relates to new work, which is considered acceptable where 'it respects and does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation.' It specifies that new work 'should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place.'[7]

The Charter encourages appropriate management of change, interpretation, careful and informed approaches to restoration and reconstruction, recording available information and sharing resources.

4.9.5 ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties (2011)

The ICOMOS guidance document sets out to offer guidance on the commission and contents of a Heritage Impact Assessment for World Heritage properties. It sets out a standard for evaluating the impact of potential development on the OUV of the property.

ICOMOS guidance outlines that impacts on OUV are to be assessed on the WHS as a whole, and not broken down into individual attributes, although this is still necessary to reach a holistic conclusion. It also encourages the active use of HIA throughout the project process, which has been reflected in this project with the development of focused HIA and overall project HIA, which have taken place alongside design development.

ICOMOS guidance on the significance and impact of change has a scoring system that encourages a final conclusion on all elements being assessed, which must either be adverse or beneficial, and therefore judgements must be balanced overall. The final conclusions in this document are preceded by the discursive weighting of potential impacts.

This document has underpinned the methodology of assessment utilised in this document, and is the key piece of international guidance on HIA for World Heritage.

4.10 National Policy Context

4.10.1 The Ancient Monuments and Archaeological Areas Act 1979

The AMAAA protects archaeological monuments of national significance in England, Scotland and Wales. It applies to 'any building, structure or work above or below the surface of the land, any cave or excavation; any site comprising the remains of any such building, structure or work or any cave or excavation; and any site comprising the remains of any vehicle, vessel or aircraft or other movable structure or part thereof.'[8]

The Act sets out the requirement for Scheduled Monument consent for works relating to designated assets. Cadw is responsible for the management of those monuments in State Care.

4.10.2 Planning (Listed Buildings & Conservation Areas) Act 1990

Chapter II, "Authorisation of Works Affecting Listed Buildings" of the Planning (Listed Buildings and Conservation Areas) Act 1990 sets out the statutory controls over the planning process for proposed changes to be made. The Act prohibits any works to a listed building, including 'alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, unless the works are authorised.'[9]

4.10.3 Planning Policy Wales 2018

Planning Policy Wales recognises cultural heritage as all elements that assist understanding how previous generations have shaped the environment. It acknowledges the contribution of heritage to both a sense of a place and a sense of identity, as well as a positive factor in quality of life, socio-economic development and local distinctiveness.

Planning Policy Wales provides the framework for the management of the historic environment, supported by Technical Advice Note 24 and Cadw guidance.

It outlines the Welsh Government's responsibility to 'protect, conserve, promote and enhance the historic environment as a resource for the general well-being of present and future generations.'[10]

In relation to World Heritage Sites, Planning Policy Wales state that they are 'international designations recognised for their Outstanding Universal Value, as inscribed by UNESCO. The planning system recognises the need to protect the Outstanding Universal Value of World Heritage Sites in Wales. The impacts of proposed developments on a World Heritage Site and its setting and, where it exists, the World Heritage Site buffer zone and its essential setting, is a material consideration in the determination of any planning application.'[11]

4.10.4 Conservation Principles for the Sustainable Management of the Historic Environment in Wales

Cadw's Conservation Principles for the Sustainable Management of the Historic Environment in Wales revolves around 6 key points:

1. Historic assets will be managed to sustain their values.
2. Understanding the significance of historic assets is vital.
3. The historic environment is a shared resource.
4. Everyone will be able to participate in sustaining the historic environment.
5. Decisions about change must be reasonable, transparent and consistent.
6. Documenting and learning from decisions is essential.

The document encourages balance and justification in assessing heritage impacts, incorporating broader interests in the sustainable management of change, summarised in Integrating Conservation With Other Interests, which focuses on the need for evaluation on the balance of heritage impacts with public benefits where change is proposed.

4.10.5 Technical Advice Note (TAN) 24: The Historic Environment 2017

The TAN provides guidance for planning decision-making regarding the historic environment in Wales, recognising that change is a certainty.

Section 1.15 specifies that heritage impact assessments 'should be proportionate both to the significance of the historic asset and to the degree of change proposed, and should include sufficient information to enable both the significance of the asset and the impact of change to be understood.'[12]

The TAN requires a management document for all World Heritage Sites to inform local authorities and national bodies how to effectively manage their internationally significant heritage. For Caernarfon, this is the *World Heritage Site Management Plan 2018–28: Castles & Town Walls of King Edward in Gwynedd World Heritage Site*. The TAN also outlines that ministers should be consulted, through Cadw, regarding works that may have an impact on the Outstanding Universal Value outlined in the WHS inscription.

The note also acknowledges the need for collaboration and communication between parties, not least due to all Welsh World Heritage Sites lying within more than one local authority. Consistency is a necessity in order to positively manage change in the historic environment.

4.10.6 Managing Change in World Heritage Sites in Wales (2017)

This is a best practice guide for the management of World Heritage within Wales, particularly in response to planning context, and the management of change.

This document reinforces the significance of WHS designation and the contribution it can make to communities. It highlights the potential for 'where World Heritage Sites can act as the focus for education, tourism, economic development and regeneration,'[13] and recognises that change can be managed for sustainable use.

4.10.7 Heritage Impact Assessment in Wales (2017)

This document sets out the principles to consider when planning changes to historic assets across Wales, of all significance and designation, and when applying for listed building, conservation area and scheduled monument consent.

This document outlines that HIA can be a useful tool for mitigating harm during project and design development if used as a form of testing against understanding of significance. It recognises that this process can encourage and support good design, which can in turn 'sustain or enhance the significance of your historic asset.'[14]

The guidance outlines that when undertaking changes to the historic environment, 'your proposals should encourage a culture of inclusion and provide access to the widest possible range of people.'[15]

4.10.8 Managing Scheduled Monuments in Wales (2018)

This management document is intended to assist managers, owners, occupiers and decision-makers relating to scheduled monuments. It is intended to be read in conjunction with Conservation Principles and the Technical Advice Note 24.

The document outlines legal requirements and day-to-day management issues, in addition to how to apply for Scheduled Monument consent, illegal works and enforcement.

4.10.9 World Heritage Site Management Plan 2018–28: Castles and Town Walls of King Edward in Gwynedd World Heritage Site

The World Heritage Site Management Plan sets out the Welsh Government's strategy and responsibility for the World Heritage properties in response to the World Heritage Convention. The government's main principles for the conservation and protection of World Heritage are:

- The statutory designation of specific historic assets within World Heritage Sites and associated mechanisms to manage and control works
- The collaborative creation and implementation of World Heritage Site management plans to ensure the effective and active involvement of all key stakeholders
- The use of the planning system to guide appropriate development.

It also identifies four key themes across the Management Plan that are applicable to Caernarfon Castle.

1. Protecting Outstanding Universal Value
2. Shared Responsibility
3. Community Engagement
4. Welsh Language and Culture

Objectives Management Policies in the Management Plan have been extracted and incorporated here in order to provide a thorough overview of the policies that are guiding management of change at the WHS. These extracted policies are specifically relevant to this particular project.

Objective 1: Maintain the castles and town walls to the highest national and international conservation standards.

Policy 1A

All works to the castles and town walls will be carried out according to best-practice guidance, including adherence to Cadw's Conservation Principles for the Sustainable Management of the Historic Environment in Wales.

Policy 1C

Visitor facilities will be designed to enhance the World Heritage Site and its setting to avoid adverse impact on the Outstanding Universal Value or on the setting of any other adjacent historic asset.

Objective 2: Conserve, promote and interpret the archaeological heritage for the benefit of current and future generations.

Policy 2A

All projects with the potential for impact on buried archaeological heritage within the World Heritage Site, or its essential setting, will be subject to archaeological evaluation to inform decision making.

Policy 2B

There will be a presumption against developments that would result in the loss of significant archaeological remains. Mitigation options will be proportionate to significance and where appropriate will include retention of significant deposits and remains in situ.

Objective 3: Safeguard the setting of the World Heritage Site for the benefit of future generations.

Policy 3C

New development is to be of appropriate design, scale and massing so that it preserves and enhances the setting of the World Heritage Site, respects significant views and reinforces a sense of arrivals.

Objective 4: Support and promote local distinctiveness within the World Heritage Site, recognising the characteristics and diversity of each of the four towns.

Policy 4D

Enterprises that derive social or economic benefit from the World Heritage Site and which enhance local distinctiveness will be fostered.

Objective 5: Use World Heritage Site status to support sustainable economic diversity and growth in the local and regional economy.

Policy 5A

Regeneration opportunities that complement or enhance the World Heritage Site will be supported.

Objective 6: Provide a visitor experience that is unique and of the highest quality.

Policy 6A

Signage on the approaches to the World Heritage Site, within the castles and in the public realm around them will be of high quality and consistent design, and will contribute to a sense of arrival and a high-quality visitor experience.

Policy 6C

Visitor facilities within each of the four towns will be of a high standard of design and quality, reflecting the world-class nature of the World Heritage Site.

4.10.10 Anglesey and Gwynedd Joint Local Development Plan 2011 - 2026

Section 6.5.29- 6.5.49 covers the preservation and enhancement of heritage assets in the region. Policy PS 20 defines the responsibilities thus:

In seeking to support the wider economic and social needs of the Plan area, the Local Planning Authorities will preserve and, where appropriate, enhance its unique heritage assets. Proposals that will preserve and, where appropriate, enhance the following heritage assets, their setting, and significant views into and out of the building/area will be granted:

- Scheduled Ancient Monuments and other areas of archaeological importance (in line with Policy AT 4).
- Listed Buildings and their curtilages.
- Conservation Areas (in line with Policy AT 1).
- Beaumaris Castle and Caernarfon Castle and Town Walls World Heritage Sites (in line with Policy AT 1).
- Candidate World Heritage Sites.
- Registered Historic Landscapes, Parks and Gardens (in line with Policy AT 1).
- Buildings of architectural/historic/cultural merit that are not designated or protected (in line with Policy AT 3).

Policy AT1 encourages the use of Heritage Impact Assessments for setting and significant views related to designated heritage assets. AT2 sets out parameters for enabling development. AT3 addresses non-designated heritage assets and local/regional assets, which is not applicable in this circumstance. AT4 deals with non-designated archaeological sites, also beyond the scope of this report.

4.11 Summary of Condition

The Condition Survey was carried out in detail by Purcell in 2015. This was reviewed to inform the proposals by Buttress in 2019. The following summary is extracted from Purcell's report.

The battlements at the top of the external wall are not accessible to the public. There are remnants of a stair on the east side, but the bottom section is missing. There are no balustrades fitted on the battlement wall walk. There is more general plant growth on the parapet, wall walk and steps than observed in other areas that were publicly accessible.

There are six large pointed arch windows with geometric gritstone tracery in the external walls to the front elevation on Castle Ditch. Two in the east tower, one in the Chapel wall above the main gate and three in the west tower. The gritstone tracery is weathered and eroded. The transoms seem to be most affected with some sections that appear to be either fractured or delaminated. It was only possible to safely view all the windows from the ground with the aid of binoculars. Where it was possible to examine the stone more closely from inside the building, it became clear that some vertical marks on the stone that appear to be fractures or delamination from a distance, are in fact vertical striations weathered in the bedding planes of the stone that have not yet resulted in fractures or delamination.

The window in the east tower that is fitted with an oak frame and leaded lights is in a sheltered position and is being used as a roost by pigeons. The tracery is covered in guano. This was the only window in the whole castle where this appeared to be an issue. It is recommended that anti-bird netting be fitted across this window.

There was water staining and damage to the ceiling in the education room below the lead roof at battlement level. It was not clear whether this was due to an existing leak or whether the issue has been addressed.

The rainwater pipes in the Education Room are made of asbestos cement. They are labelled but exposed.

The King's Gate west tower is unroofed and open to the elements on both sides. There is vegetation growth on projecting stone corbels in recesses and within door and window openings that are not easily accessible for maintenance. There is moss and algae growth on the face of the stone at basement level, where the walls are permanently damp.

There was a distinct odour of damp in the staff room on the ground floor section of the central chamber in the east tower. Further investigation is required to confirm the source. The staff areas are subdivided by timber and plasterboard partitions creating a risk of moisture build-up in unventilated voids.

5.0

Attributes of Outstanding Universal Value

5.0 Attributes of Outstanding Universal Value

5.1 Introduction

It is important to understand what constitutes the Outstanding Universal Value of World Heritage Sites. These can be identified as "attributes", features that support the agreed OUV. These can be physical elements, such as buildings or archaeological deposits, relationships between features such as key views, and intangible values supported by aspects of the World Heritage property. Attributes tend to be more recognisable than OUV, and in the case of The Castles and Town Walls of King Edward in Gwynedd, easier to associate with individual buildings or places rather than the OUV which applies to the whole WHS across all 4 sites.

Following the adoption of the RSOUV by the World Heritage Committee in 2013, Cadw have defined the attributes of OUV from that statement. These provide much of the basis for assessing the impact of proposed development in or near World Heritage properties.

The Castles and Town Walls of King Edward in Gwynedd World Heritage Site Management Plan Section 2.3 summarises the key attributes of the WHS inscription as follows:

1. The four castles of Beaumaris, Caernarfon, Conwy and Harlech, and the attendant fortified towns at Caernarfon and Conwy are the finest examples of late thirteenth-century and early fourteenth-century military architecture in Europe.
2. As a stylistically coherent group, the castles are a supreme example of medieval military architecture designed and directed by James of St. George, King Edward I of England's chief architect, and the greatest military architect of the age.
3. The relationships between the castles and their settings, including all four towns, and the coast.
4. The extensive detailed contemporary technical, social and economic documentation of the castles is one of the major references of medieval history.
5. The castles of Beaumaris and Harlech are unique artistic achievements for the way they combine characteristic thirteenth-century concentric - walls-within-walls - structures with a central plan, and for the beauty of their proportions and masonry.
6. The influence of the castles on Welsh culture, language and distinctiveness.[16]

The attributes relating to OUV form the vital framework for the assessment of heritage impacts. They form part of the baseline information. However, as they require further detail, they have been separated out in this report for ease.

5.2 Castles of Edward I in Gwynedd Attributes

The following table[17] outlines the details of attributes ascribed to the OUV for the whole WHS by Cadw. These will be used to inform understanding of the OUV and to provide baseline data to underpin the effective assessment of heritage impacts.

Value	Attributes
Value 1 The four castles of Beaumaris, Conwy, Caernarfon, Harlech and the attendant fortified towns at Conwy and Caernarfon are the finest examples of late 13th century and early 14th century military architecture in Europe.	*Demonstrated through their completeness, pristine state, evidence for organised domestic space, and extraordinary repertory of their medieval form.* **Castles display administrative and domestic architectural features::-** • Good survival of domestic infrastructure, including internal features of kitchens (e.g. ovens, hearths and plumbing linking to Well Tower at Caernarfon); • Water supply (Well tower at Caernarfon, external wells at Conwy and Harlech); • Suites of Royal Apartments (Conwy and Caernarfon) with chapels, bedchambers, halls and domestic facilities, e.g. latrines; • Multiple suites of domestic apartments to service administrative requirements (Caernarfon, Harlech and Beaumaris each designed to house local government for a county); • Evidence for room function and domestic servicing arrangements (fireplaces, latrines, varying levels of privacy and access); • Great Halls within inner wards (best preserved at Conwy). **Symbolic architectural features:-** • Angled towers, patterned masonry and eagle statues reminiscent of Imperial Roman architecture (Caernarfon); • Royal statuary (Caernarfon); • Remains of original external white render finishes (Conwy and Harlech).
Value 2 The castles as a stylistically coherent group are a supreme example of medieval military architecture designed and directed by James of St. George, King Edward I of England's chief architect, and the greatest military architect of the age.	*Relationship between design and site – concentric defences at Harlech and Beaumaris, single ring of very tall/strong defences on the restricted sites at Conwy and Caernarfon.* **Castle design reflects strengths and limitations of location:** • Multiple concentric defences at Harlech and Beaumaris; • Single circuit of tall/strong defences on the restricted sites at Conwy and Caernarfon. **Military features include:–** • Large, strongly defended and imposing gatehouses; • Barbicans (Conwy and Beaumaris); • Rock-cut ditches (Caernarfon, Conwy, Harlech); • Water-filled moat (Beaumaris); • Complex arrow loop positions (particularly elaborate at Caernarfon); • Multi-level concentric defences combined with arrow loop; • Positions designed to provide comprehensive fields of fire (Beaumaris and Harlech); • Ability to isolate towers for defence (best evidenced at Caernarfon); • Strongly defended watergates, drawbridges, chicanes, redoubts, dungeons, towers, and curtain walls (all four castles). **Savoyard architectural features:-** • Doorways with semi-circular arches; • Distinctively wide windows with segmental arches and tracery; • Latrine shafts corbelled out from walls; • Spiralling and inclined scaffolding (as evidenced by putlog hole positions).

Surviving records and associated scholarship. Key accounts include Taylor in Colvin (ed.), The History of the King's Works, London (1963).

Constructional features linked to documentation:-

- Evidence for constructional phasing linked with expenditure/events (e.g. breaks between masonry lifts, wall strengthening/raising);
- Spiralling and inclined putlog holes;
- Design changes (for example, stone arches replace earlier timber trusses in Conwy great hall in the 1340s);
- Unfinished architectural elements (for example, Caernarfon King's Gate, Beaumaris gatehouses).

Value 3

The extensive and detailed contemporary technical, social and economic documentation of the castles, and the survival of adjacent fortified towns at Caernarfon and Conwy, make them one of the major references of medieval history.

Value 4

The castles of Beaumaris and Harlech are unique artistic achievements for the way they combine characteristic 13th century double–wall structures with a central plan, and for the beauty of their proportions and masonry.

- Concentric layout with multiple lines of defence (inner ward, outer ward, curtain wall, ditch/moat);
- Different wall levels for inner and outer ward defences combined with arrow loop positions designed to provide fields of fire (Beaumaris and Harlech);
- Complex, defended gatehouses with accommodation (one at Harlech, two planned but not completed at Beaumaris);
- Decorative masonry features (window and doorway mouldings);
- Decorated chapels (Vaulted masonry at Beaumaris; painted decoration at Harlech).

Value 5

Relationship with the coast.

- All four castles built in coastal locations (Caernarfon, Conwy and Beaumaris still apparent; Harlech now inland due to 19th century land reclamation, but original coastline evident in topography);
- Watergates at all four sites designed for direct access from the sea/river;
- All four castles visible from sea.

Value 6

Relationship between castles and planned walled towns (Conwy and Caernarfon).

- Surviving town wall circuits with defensive features including wallwalk, defended gateways, arrowslits, open-backed D-shaped mural towers allowing sections of wall to be isolated when under attack, high parapets to exterior and low parapets towards town;
- Designed urban plans with main streets linking main roads with town gates;
- Intimate relationship between castle and town — wall connections and use of castle to complete circuit (Caernarfon and Conwy);
- Relationship between castle and medieval churches within towns (St. Mary's (1303) in Caernarfon; St. Mary's (foundation pre-1283) in Conwy);
- Architectural evidence for incorporated medieval buildings within town circuit (Llewelyn's Hall and Mill/Exchequer Gate at Conwy; St. Mary's Church at Caernarfon);

5.3 Evidence of Physical Attributes

The above attributes, ascribed to OUV by Cadw, covers the whole WHS, and intangible cultural heritage. This section identifies evidence of physical attributes directly relevant to Caernarfon Castle's King's Gate, which have the potential to be affected by the proposed scheme of works. This is not intended to be an exhaustive catalogue, but an indication to aid understanding of the heritage.

5.3.1 Value 1

The well-preserved evidence of domestic infrastructure in the King's Gate adds to its significance. Throughout the King's Gate, there is evidence of those domestic elements, identifying potential room functions and inter-relationships. King's Gate also includes the chapel, which itself contains defensive features, illustrating the contrast between the uses of the building. Though the most obvious Hall within Caernarfon Castle is in the lower ward, a further large hall was planned for the top floor of the King's Gate. This value is evidenced through physical attributes, outlined below.

- Storage in the basements.
- Entrance passages flanked by receiving chambers.
- Second floor higher status rooms, separated by the chapel to fit with the architecture.
- Chapel housed headgear of two portcullises – compromise between defence and daily life.[18]
- Upper floor never completed – large hall for the constable, while accommodating access to the battlements at the lower status eastern side.[19]
- Multi-directional arrow loops.
- Mural passages.
- The doorway in the east elevation of the prison tower (in the glass box) is much wider than those in the main gateway, demonstrating the reduced defensive qualities.[20]
- Evidence of fireplaces, including angled jambs in basement of the west tower indicating potential fireplace hood.[21]
- Staircase in basement of Tower 3 intended to provide access directly from the kitchen into the chambers within the gatehouse, and ultimately to the hall intended on its upper floor.[22]
- Fireplaces (ground floor west tower).
- Evidence of ceiling beam sockets.
- Garderobe Passage window intended to let light into the kitchen and provide defensive firing position.
- Evidence of rear of fireplace in north east corner of shop.
- Fireplace in south wall.
- Angled towers.
- Patterned masonry reminiscent of imperial Roman architectural styles.
- Statue of Edward.
- No plaster itself, but archaeological record suggests that the ragged outer edges of sandstone quoins within Tower 1 (Ground Floor) suggest the wall was originally plastered.[23]

5.3.2 Value 2

Caernarfon's King's Gate is the strongest gatehouse of the 4 castles, despite its incorporation of domestic accommodations. The King's Gate contains evidence of multiple military features, including a drawbridge, multiple portcullises, murder holes, a rock cut ditch, complex arrow loop positions with wide fields of fire, and a curtain wall. This value is evidenced through physical attributes, outlined below.

- Visible construction phases.
- "Prison tower" Tower 3 – south wall intended to be the northern side of a passage forming a return of the heavily fortified entrance through the gatehouse, often referred to as the 'Black Alley.'[24]
- Portcullis chase at the eastern end of the south elevation of the Prison Tower has the partial survival of springers for an outer arch to two additional courses in height.[25]
- Portcullis chase in the chapel.
- Profile of barrel vaulting in southern elevation of prison tower potentially evidence of intention for additional floor above the passageway, perhaps for access to portcullis winch.[26]
- South-east angled return of prison tower, elevation terminates in a portcullis chase […] with good survival of the springer for an arch.[27]
- The moulded rib for a two centred arch perhaps intended to carry a barrel vault across the angle of the passage between King's Gate and the passage to the west.[28]
- Arrow loops in basements – firing line over the moat.
- Portcullises.
- Meurtrieres in g4 passage.
- Arrow loops bulging at the base to increase the firing angle.
- Arrow loop in each mural passage placed in the inner face of the tower on low first floor.
- Bearing sockets for the drawbridge pit.[29]

5.3.3 Value 3

There is significant evidence of constructional phasing throughout the King's Gate, and some construction methods evidence through the potential identification of putlog holes. Most significantly, the unfinished nature of the King's Gate itself is the principal attribute of note for Value 3. This value is evidenced through physical attributes, outlined below.

- Sockets in the upper east wall – only examples of putlog holes observed within the King's Gate.[30]
- Towards the top of the second floor level, six sandstone corbels project from the wall face. All are of chamfered two-piece construction, with angled upper faces suggesting that they formed springers for stone or timber arches, rather than carrying a wall plate.[31]
- "Toothing" for wall extensions.
- Documentary sources suggest that the first phase of the tower was constructed to only a very low level, which can clearly be seen in the adjacent curtain wall, linking the King's Gate to the Well Tower.[32]
- Use of dressed sandstone quoins between each elevation in the later stonework evidence of phasing.[33]

5.3.4 Value 4

Value 4 is not discussed as it specifically relates to Beaumaris and Harlech.

5.3.5 Value 5

The castle in general has a strong relationship with the coast, and is clearly visible from the sea. This value is discussed in **10.3 Significant Views: Into the Castle and Town Walls.**

5.3.6 Value 6

The King's Gate was the principal conduit which linked the castle to the town, therefore the relationship between the castle and the town is of particular importance to the King's Gate. This relationship is evidenced through physical attributes, outlined below.

- Imposing nature of the façade, 'represents the intended principle access from the walled town. The original drawbridge has long been lost, but its deep pit survives intact beneath timber boarding.'[34]
- The statue of Edward II facing towards the town demonstrates the monarch's "presence".
- The Castle's scale makes it dominant over the town, a feature from its original construction that is still relevant today.
- Pale limestone of local origin.
- Pale yellow sandstone of local origin.
- Second stage of construction followed the liberation of the town from occupation by Welsh forces, led by Madog ap Llwelyn in 1294-5.

5.4 Key Aspects of Essential Setting and Significant Views

The following is extracted from Section 2 of the Cadw World Heritage Site Management Plan.

5.4.1 Essential Setting

The entirety of the Caernarfon Conservation Area is included within the essential setting of the World Heritage Site. This includes the whole of the walled town, the Maes and part of the largely nineteenth-century urban development immediately outside the walls.

St. Helen's Road is an increasingly important access to the town and is an area where some regeneration/redevelopment has already taken place and where further redevelopment may be expected (for example, the Slate Quay area, including the Welsh Highland Railway station).

Views up and down the Seiont are considered worthy of protection, as is the prominent area of Coed Helen.

Victoria Dock is included within the essential setting. It is now a thriving marina with hotels and restaurants at its northern end, as well as a cultural hub (Galeri). Regeneration of the dock area has proved to be an important addition to the economy of the town, but the design of the commercial development is somewhat out of character with the World Heritage Site. Further development may be expected here; proximity to the World Heritage Site and the historical significance of the dock in relation to the development of the town make this an especially sensitive area.[35]

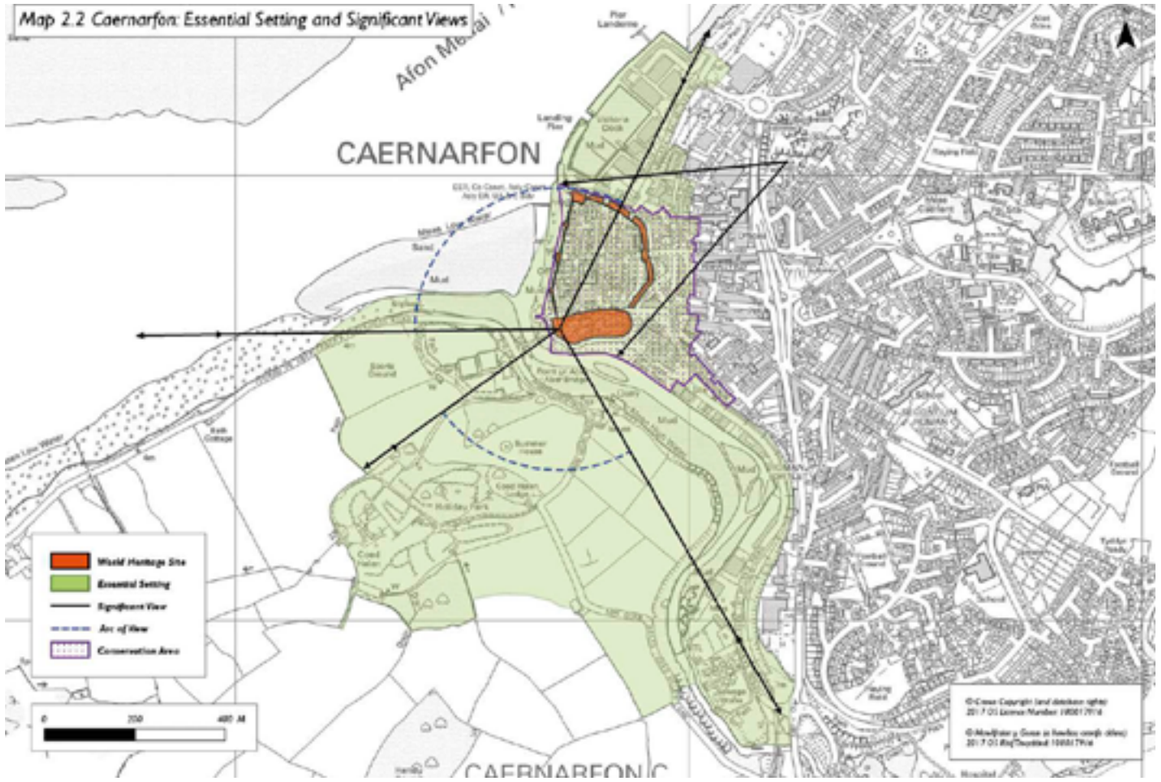


Figure 13 Essential Setting of the World Heritage Site[38]

5.4.2 Significant Views

Views from and into the castle and town walls are extracted from the World Heritage Site Management Plan.

From the castle and town walls

The whole arc of the marine view of the Menai Strait, including the Anglesey coast, the view of Coed Helen and inland along the Seiont. Similar views are obtained from around the wall walks and towers of the castle, and from the town walls.[36]

Into the castle and town walls

Views from the Menai Strait and Anglesey, views from Coed Helen and along the Seiont (this was the view painted by J. M. W. Turner, 1775–1851); and the view from Twthill. Other views are framed by the streets of the town.[37]

Inside the town walls

The key views inside the town walls have been identified as part of the Heritage Impact Assessment. They are marked on the map adjacent, intending to highlight the relationship of the Castle, and more specifically the King's Gate, with the wider town within the walls. These can be described briefly as following:

1. View towards King's Gate from Church Street
2. View towards King's Gate from Market Street
3. View towards King's Gate from Stryd Pedwar a Chewech
4. View towards King's Gate from Shirehall Street
5. View towards King's Gate from Castle Street
6. View towards King's Gate from Palace Street
7. View towards King's Gate from Hole in the Wall Street
8. View towards King's Gate from Hole in the Wall Street
9. View towards King's Gate from Hole in the Wall Street & Castle Ditch
10. View towards King's Gate from Palace Street and Castle Ditch
11. View towards King's Gate from Castle Street and Castle Ditch
12. View towards King's Gate from Shirehall Street and Castle Ditch

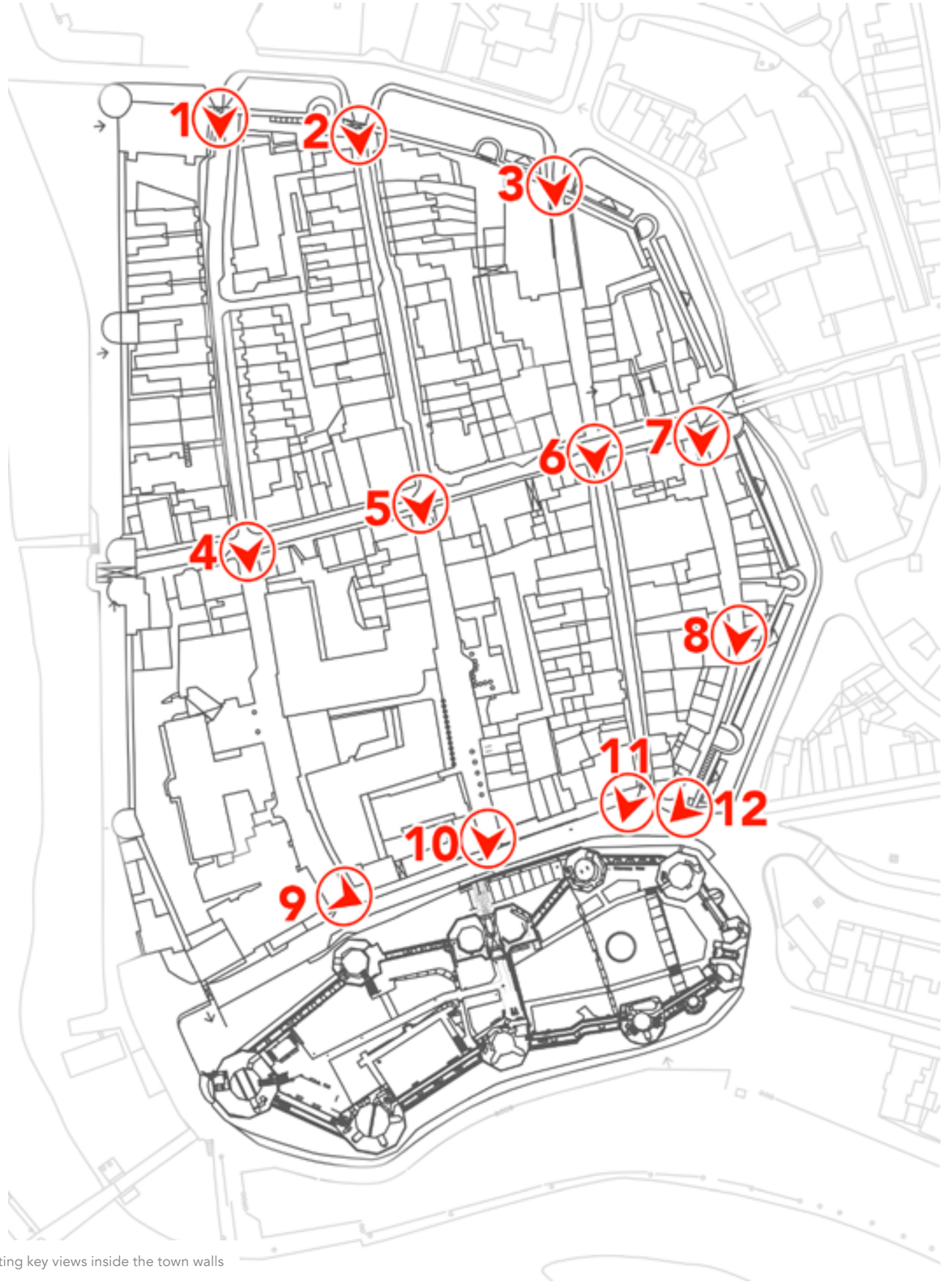


Figure 14 Map indicating key views inside the town walls



View towards King's Gate from Church Street



View towards King's Gate from Market Street



View towards King's Gate from Stryd Pedwar a Chewech



View towards King's Gate from Shirehall Street



View towards King's Gate from Castle Street



View towards King's Gate from Palace Street



View towards King's Gate from Hole in the Wall Street



View towards King's Gate from Hole in the Wall Street



View towards King's Gate from Hole in the Wall Street & Castle Ditch



View towards King's Gate from Palace Street and Castle Ditch



View towards King's Gate from Castle Street and Castle Ditch



View towards King's Gate from Shirehall Street and Castle Ditch

6.0

Statement of Significance

6.0 Statement of Significance

The significance of Caernarfon Castle has been assessed by Cadw. The Statement of Significance included here considers those values that specifically relate to the OUV of the World Heritage Site, i.e. the contribution that Caernarfon makes to the significance of the World Heritage Site. It also broadly considers the entire range of values associated with the castle. The statement has been provided by Cadw, and is not independently published.

6.1 Introduction

Caernarfon occupies a special place in the history of Wales. Since Roman times, it has been a site of strategic and symbolic importance. The castle and walled town, built by Edward I, were conceived as a single entity and, from 1284, served as the administrative and judicial centre of North Wales. In that year, Prince Edward of Caernarfon, who was later created the first English prince of Wales, was born within the castle walls.

The castle was built in two main phases, 1283-1292 and 1295-1323 and designed to enclose an earlier earthen motte and take full advantage of its coastal location. Built to reflect its special status, the angular towers and banded stonework recall Roman architecture. The castle is dominated by the massive Eagle Tower whose three lofty turrets were decorated with carved statues, including an eagle.

A Welsh rebellion in 1294 severely damaged the castle requiring a massive repair programme. Building continued until about 1330, though the castle was never completed as planned.

Besieged by Owain Glyndwr in 1403 and 1404, the castle was described as being in ruinous condition by 1538, and in 1620 only the Eagle Tower and King's Gate were still roofed. The walls remained sound enabling it to be held for the crown during the Civil War (1642-48) until 1646 when it was surrendered to parliamentary forces. A government order of 1660 to demolish the castle was never acted upon, and by the mid-18th century, Caernarfon had begun to interest artists and antiquarians.

During the 19th century, the town of Caernarfon grew prosperous on the back of the international trade in Welsh slate. In the last thirty years of the century, the deputy-constable, Sir Llywelyn Turner, pursued an active programme of repair and restoration. In 1911 and 1969, Caernarfon hosted the Royal investitures of Prince Edward and then Prince Charles, as Prince of Wales.

In 1286, Caernarfon, along with Harlech, Beaumaris and Conwy, was inscribed as Wales's first World Heritage Site.

6.2 Evidential Value

(physical remains, fabric, buried archaeology, documents, records, artefacts)

The four castles of Beaumaris, Conwy, Caernarfon, Harlech, and the attendant fortified towns at Conwy and Caernarfon, are the finest examples of late 13th century and early 14th century military architecture in Europe. The following features are expressed by Caernarfon Castle: -

6.2.1 Military Features

- Strongly defended gatehouse (drawbridge, portcullises, arrow-loops, guard chambers etc.)
- Rock-cut ditch facing town.
- Complex arrow loop positions allowing multiple shots from single loops.
- Ability to isolate towers for defence.
- Defended entrances at bases of towers (watergate, well tower).
- Defended walkways, including internal intra-mural passages between towers.

6.2.2 Administrative & Domestic Architectural Features

- Domestic infrastructure, including internal features of kitchens (e.g. ovens, hearths and plumbing linking to Well Tower).
- Eagle Tower designed to accommodate very high status occupants – large apartments, chapels, chambers, varying levels of privacy, domestic facilities e.g. latrines.
- Multiple towers containing suites of domestic apartments; evidence for room function and domestic servicing arrangements (fireplaces, latrines, chapels, passageways, varying levels of privacy and access).

6.2.3 Symbolic Architectural Features

- Angled polygonal towers, patterned masonry and eagle statues reminiscent of Imperial Roman architecture.
- Statue of Edward II above entrance.

6.2.4 Constructional Features (Some Linked to Documentation)

- Evidence for constructional phasing linked with expenditure/events (e.g. breaks between masonry lifts, wall strengthening/raising).
- Change in ground levels and window heights indicate where the earlier earthen motte was incorporated into the upper ward.
- Construction break between first and second floors of Eagle Tower.

6.2.5 Evidence for Original Unrealised Architectural Design

- Incomplete architectural elements (e.g. King's and Queen's Gates, kitchen).
- Stone "toothing" on interior facing walls.
- Buried foundation walls.

6.2.6 Evidence for 19th & Early 20th Century Restoration Works

- Distinctive masonry demonstrates repairs undertaken in 19th century under Sir Llewelyn Turner, including stairs, newels, battlements, top of Well Tower, repairs to Chamberlain Tower, re-floored and roofed the Queen's Tower.
- Ground levels between upper and lower wards reflect 19th century landscaping.
- Floors/ceilings in Eagle Tower (Ministry of Works).

6.2.7 Relationship with the Town

- Conceived as a single entity; wide curtain wall with internal passages on seaward facing wall; narrower curtain wall without internal passages faces towards town.
- Junction with town wall at Eagle Tower.

6.2.8 Documentary Evidence

- Royal pipe rolls outline payments for work carried out throughout period 1283 to 1327 enabling the progress of the construction work to be charted (held in National Archive, Kew).
- Studies of original records by Arnold Taylor "The King's Works"

6.2.9 20th Century Investitures

- Slate plinth used for the 1969 ceremony.
- Slate throne and stool; examples of wooden chairs used by audience.
- Film recording 1969 event.
- Photographic and written archives (both 1911 and 1969 events).

6.3 Historical Value

(Associations with historical figures & events; Illustrations of historical periods, movements, etc.)

- Caernarfon, along with the castles of Conwy, Harlech and Beaumaris, was built on the order of King Edward I of England (1272-1307), one of the principal military leaders of Europe of the time. Together the castles illustrate the way in which he exercised his power in annexed territories.
- Design and direction were in the hands of Master James of St. George, one of the greatest military architects of his age.
- Caernarfon was attacked by the Welsh during Madog ap Llywelyn's uprising (1294-5) causing extensive damage to both town and castle.
- Birthplace of Edward of Caernarfon (Edward II), son of Edward I and Queen Eleanor.
- Besieged by Owain Glyndwr in 1403 and 1404.
- During the Civil War the castle was garrisoned for the King; in 1646.
- John, Lord Byron surrenders to Parliamentary forces.
- Deputy-constable Sir Llewelyn Turner (1823-1903) carried out extensive repairs and restoration works.
- 1911 Investiture of Prince Edward as Prince of Wales.
- 1969 Investiture of Prince Charles as Prince of Wales.
- Incorporates Royal Welsh Fusiliers Museum.

6.4 Aesthetic Value

(form, appearance, setting, artistic views and descriptions)

- Set on a peninsula of land overlooking the River Seiont with long distance views out across the Menai Straits to Anglesey.
- "Figure of eight" shape with series of towers linked by tall curtain walls; originally divided into two wards at its narrowest point.
- Distinctive banded stone masonry and octagonal towers reminiscent of Imperial Roman architecture.
- Incorporates statues, including an eagle (Eagle Tower) and figurative representation of Edward II (King's Gate).
- Substantial size and with towers standing up to four stories in height; Eagle Tower has three additional turrets adding extra height.
- The restored interior spaces in the Eagle, Queen's and Chamberlain's towers are of monumental scale and include 20th century timber beams of impressive and substantial dimensions.
- A combination of internal and external wall walks link the towers; internal wall walks only on outer (seaward) facing sides.
- Depicted by artists from 17th to 19th centuries, including the Buck Brothers (1742) and J M W Turner (1833).
- Historic descriptions by travellers/writers including Dr Samuel Johnson.
- 19th/early 20th century restoration work is distinctive, including restored battlements not present at the other World Heritage Castles.

6.5 Communal Value

(symbolic, commemorative, use, meaning, belief)

- Constructed to serve as a Royal base in North Wales, intended for use by Edward of Caernarfon, but in practice never used for this purpose.
- Two 20th century investitures of Princes of Wales (1911 and 1969).
- Royal Borough of Caernarfon from 1963.
- 190,000 visitors per annum, mainly from England and overseas, and is the primary tourism draw for the town.
- Over 6,000 educational visits per annum.
- Used today to host events and musical concerts.
- Caernarfon castle is considered by some to represent a symbol of English domination.

7.0

Methodology

7.0 Methodology

The setting out of attributes and how they relate to each other provides an established baseline of information against which to assess heritage impacts.

7.1 Data Sources

A point cloud of the King's Gate was produced by Salford Archaeology at the beginning of the project. They were later commissioned to produce a Level 4 Survey focused on the King's Gate. At the time of writing, the first draft of this document has undergone peer review. The document will be completed after survey works undertaken during the strip out of Tower 2. It is due to be published in the relevant academic journals upon the completion of the work. Mapping the Medieval Townscape: a digital atlas of the new towns of Edward I, 2005 was also used as a point of reference.

Please refer to 15.0 Bibliography & Sources for a further list of data sources, published works, unpublished reports, databases and field surveys.

7.2 Impact Assessment Methodology

The phasing and significance conclusions of the Level 4 Record have been marked onto the BIM model. This has created a 3D environment for the subsequent drawing of the proposed scheme, and understanding of new interventions. Modelling the scheme in this way will immediately show areas of harm, and indicate the scale of harm, which can then be mitigated through design choices.

Impacts will be assessed and scaled per the ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage properties, which is included here. This table has directly informed the British Standards BS7913 guidance for the scale of impacts, therefore it reflects both national and international standards.

ICOMOS suggest a 9-point scale spectrum for defining the impacts of proposed changes. This has been done to provide balance to perceived harmful changes by demonstrating beneficial outcomes of the proposed works.

VALUE OF HERITAGE ASSET	SCALE & SEVERITY OF CHANGE/IMPACT				
	No Change	Negligible Change	Minor Change	Moderate Change	Major Change
For WH properties Very High - attributes which convey OUV	SIGNIFICANCE OF EFFECT OR OVERALL IMPACT (EITHER ADVERSE OR BENEFICIAL)				
	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
For other heritage assets or attributes	SIGNIFICANCE OF IMPACT (EITHER ADVERSE OR BENEFICIAL)				
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

Figure 15 ICOMOS Guidance on Heritage Impact Assessments

Major beneficial	Moderate beneficial	Minor beneficial	Negligible beneficial	Neutral	Negligible adverse	Minor adverse	Moderate adverse	Major adverse

Figure 16 9-point scale of impact

No Change	Negligible Change	Minor Change	Moderate Change	Major Change
No material change to the heritage asset or its setting.	A small change or alteration, but unimportant. Having no visual or indirect impacts on the asset or its setting. Slight changes to use or access.	A small change to an element of fabric or setting that results in a noticeable difference. Limited indirect impacts or changes to character.	Changes to an element, including replacement, or insertion of a new element, where the asset or its setting has clearly been modified. Noticeable indirect impacts.	A change of great extent, including the complete removal of an element. Changes to most or all of the asset or its setting. Total alteration of the asset. Extreme indirect impacts.

Figure 17 Definition of types of change

7.3 Scope of the Assessment

The proposed scheme of works is limited to the King's Gate at Caernarfon Castle. The scope of this assessment will address direct impacts to this specific area, and any potential impacts on the Castle and Town Walls. The assessment will also evaluate the impact of potential development on the OUV identified as part of its UNESCO group listing under the Castles of Edward I in Gwynedd. Other aspects of the scheme, such as enabling works, have undergone a separate process of HIA as described in 1.1 Project Background.

Due to the complexity of the heritage asset, and the proposed scheme of works, it is proposed that the methodology take place on three levels. First, focused on the King's Gate as an individually significant asset, the potential direct impacts on the historic fabric, and key views. Second, recognising the King's Gate as a component part of the Caernarfon Castle and Town Walls complex. Third, considering the King's Gate within the wider context of the World Heritage Site more broadly. This will look at elements such as views, and high-level OUV.

Understanding the King's Gate individually, and within its wider national and international context allows for assessment on a micro and a macro scale. The micro assessment will take into consideration the direct impacts relating to historic fabric, and the scheduled monument, how these have been minimised and mitigated, and the consequential values. This will also be reflected in the Scheduled Monument Consent process. The macro assessment will consider broader impacts, i.e. direct or indirect impacts on the integrity and authenticity of the World Heritage status. Both scales of assessment will facilitate the assessment of impact on OUV.

The aim of the HIA is to:

- Determine the impacts, both positive and negative, that may occur as a result of the proposed scheme.
- Assess the scale of the intervention, and the scale of the impact.
- Assess the cumulative scale of impact.
- Assess the impact on overall significance of the King's Gate, Caernarfon Castle & Town Walls, and the wider OUV and WHS.

7.3.1 Consultation

Salford Archaeology have undertaken a Historic Building Survey and Record of the King's Gate. This has provided the basis for all relationships between new build interventions and the historic fabric, taking into consideration relative age and significance. The process of research and interpretation has informed the design team during their design development due to the practice of periodic reporting during the works.

The Audience Agency have carried out an audience development survey to establish how visitors interact with the Castle and understand its significance, with particular focus on the Outstanding Universal Values that the World Heritage inscription is built upon. This has provided insight into how audiences use and experience the space of the Castle, and which areas need more emphasis and interpretation to facilitate the most effective levels of engagement with this significant heritage.

There have been regular progress meetings with **Cadw** to guide the project through its development, including concept and design reviews, and a Virtual Reality experience for introduction into the concept. We have also received guidance from the Inspector of Monuments to inform our approach to the significance of the Scheduled Monument.

Gwynedd Council have been consulted on the project through a formal pre-application process, and consulted at various stages, from inception to submission of permissions.

An **Access Consultant,** Phil Chambers, attended site in November 2019 and provided advice regarding door-widths and level access to provide greater accessibility to the site. This report concluded that:

'It will be feasible to provide reasonable access, to the proposed life; contingent on some small modifications to the existing doorway and stepped access. The provision of a lift to accommodate standard wheelchairs at Caernarfon Castle will have a significant impact on providing equality of opportunity for many disabled people who, for the first time in several centuries, will have an opportunity to have access to the historic ramparts of Caernarfon Castle alongside all other visitors.'

7.3.2 Evaluation of Heritage Resource

The Historic Building Record and Survey has established more directly the elements of the King's Gate that convey attributes of the OUV as outlined in the World Heritage inscription. The audience development survey has outlined areas where the more intangible values, such as understanding the reasons for the Castle's significance, was missing from public perception of the Castle and the King's Gate.

7.4 Assessment of Scale of Specific Impact and Change

The **scale of change i**s based on the level of proposed intervention and how much potential the intervention has to alter fundamental principles of significance of the asset. The scale of impact relates this to the significance of the asset in question. It is important to note that impacts can be both direct and indirect, and do not only relate to the physical fabric. Change and impact can also be primary or secondary; temporary or permanent; reversible or irreversible; and may arise as a consequence of construction or operation of the proposed development. For the purpose of this assessment, the following definitions have been applied:

Direct impacts are those that arise as a primary consequence of the Scheme. Direct impacts can result in the physical loss of part or all of an asset, and/or changes to its setting. Cadw *Conservation Principles* state that setting is, 'the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape'.

Direct impacts resulting in physical loss are usually permanent and irreversible; normally occur as a consequence of construction of the Scheme; and are confined within the development footprint. The magnitude of these impacts will depend on the proportion of the asset affected, and whether its key characteristics would be affected.

Direct impacts that affect the setting of an asset can occur as a consequence of construction or operation of the Scheme, and can affect assets some distance from the development. Assessment of impacts on setting refers to perceptible visual and aural (noise) effects that can be appreciated at a given time. Such impacts may be temporary or permanent, reversible or irreversible, depending on the extent to which the cause of the impact can be removed. Impacts may also be transient where occurrence is sporadic or of limited duration; for example, related to hours of operation or the frequency of passage of vehicles.

Indirect impacts occur as a secondary consequence of construction or operation of the development, and can result in physical loss or changes to the setting of an asset beyond the development footprint.

Severity of impacts has been judged taking into account their direct and indirect effects and whether they are temporary or permanent, reversible or irreversible. The cumulative effect of separate impacts has also been considered. The magnitude of impact (summation of direct and indirect impacts) is assigned one of the following descriptors; impacts may be adverse or beneficial and hence a nine-point scale results with 'no change' as its centre point:

- Major beneficial
- Moderate beneficial
- Minor beneficial
- Negligible beneficial
- No Change
- Negligible adverse
- Minor adverse
- Moderate adverse
- Major adverse

7.5 Assessment of Key Impacts

The impact assessment has been carried out in accordance with the methodology outlined in 7.2 Impact Assessment Methodology

The assessment acknowledges that the heritage within the context of the Proposed Scheme is complex and multi-layered. Therefore, there are 5 levels of scrutiny of the scheme. These are as follows:

Castles and Town Walls of King Edward in Gwynedd World Heritage Site	Crucial to the understanding of Caernarfon Castle is understanding its role within the wider World Heritage Site and the associated assets. Therefore, the scheme is considered as part of a larger whole.
Caernarfon Town	Caernarfon Town contributes to the significance of the World Heritage Site, sits within a Conservation Area and contains various individual assets of heritage significance. Therefore, it is important to consider these as part of any proposed scheme.
Caernarfon Castle	The Castle is a significant listed building and scheduled monument in its own right. The Proposed Scheme takes place within the building; therefore, it must be considered against the whole.
King's Gate	The King's Gate is unique within the Castle, and within the broader context of the World Heritage Site. The Proposed Scheme is retained entirely within the walls of the King's Gate; therefore, the levels of interaction will be higher, warranting individual scrutiny of this element.
Outstanding Universal Value + Attributes	The Outstanding Universal Value outlined in the UNESCO description for the broader World Heritage Site covers a broad range of values, some of which are holistic, others which are specific to individual buildings or towers. As these elements have been specifically identified, and formally recognised, as making an overwhelming contribution to the significance of Caernarfon Castle, it is important that these are assessed individually against the proposed scheme.

7.6 Evaluation of Overall Impact

The thorough impact assessment evaluation can be found in 8.0 King's Gate Impact Analysis, 9.0 Caernarfon Assets Impact Assessment, 10.0 Impact on Wider Heritage Setting & World Heritage Property Key Views and concluded in 11.0 World Heritage Site Impact Analysis Conclusions and 14.0 Summary & Conclusions.

Endnotes

1 Cadw. *Castles and Town Walls of King Edward in Gwynedd Management Plan*. 2018. 36.
2 Ibid., pp. 26-31.
3 UNESCO, Operational Guidelines, 31.
4 Ibid., 33.
5 UNESCO. Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention. Quoting from the Budapest Declaration.
6 Ibid., 9.
7 Australia ICOMOS. *The Burra Charter.* 2013. 7.
8 Ancient Monuments and Archaeological Areas Act 1979. S.60(7)
9 Planning (Listed Buildings and Conservation Areas) Act 1990. Ch II S.7(1).
10 Planning Policy Wales. 2018. 124.
11 Ibid. 126.
12 Planning Policy Wales Technical Advice Note 24: The Historic Environment. 2017. 8.
13 Cadw. Managing Change in World Heritage Sites in Wales. 2017. 15
14 Cadw. Heritage Impact Assessment in Wales. 2017. 3.
15 Ibid. 6
16 Cadw. World Heritage Management Plan: Castles and Town Walls of King Edward in Gwynedd World Heritage Site. January 2018., 31.
17 Ibid., 146-149.
18 Salford Archaeology, 13.
19 Ibid.
20 Ibid., 27.
21 Ibid., 28.
22 Ibid., 31.
23 Ibid., 39.
24 Ibid., 24.
25 Ibid., 25.
26 Ibid., 26.
27 Ibid.
28 Ibid.
29 Ibid., 53.
30 Ibid., 19.
31 Ibid.
32 Ibid., 30.
33 Ibid.
34 Ibid., 14.
35 Cadw. World Heritage Site Management Plan, 39.
36 Ibid., 41.
37 Ibid.
38 Ibid., 34..

8.0

King's Gate Impact Analysis

8.0 King's Gate Impact Analysis

8.1 Introduction

The assessment of impacts on the King's Gate has been split into groups of interventions to provide clarity on how each principal element of proposed intervention impacts throughout the whole King's Gate. The impact of each group is split into:

- Impact on Historic Fabric
- Impact on Scheduled Monument
- Impact on OUV + Attributes

This is to reflect the micro and macro scale of potential impacts, and to ensure each element is assessed in relation to the tangible and intangible.

Drawing reference numbers are included at the beginning of each group to allow cross-referencing to the relevant drawn information. This information can be found in the drawing pack. Due to the high volume of individual drawings and details, these have not been reproduced within this document.

8.2 Conservation & Repair

Drawing Numbers: (20) series, (47) 100.

8.2.1 Impact on Historic Fabric

The scope of the fabric removal work is twofold. The first, and most substantial, relates to the removal of modern interventions within all three towers. These items relate to the staff facilities and back of house, the shop fit out, the roof to Tower 2, and other elements of visitor-focused furniture, such as the bridge in Tower 1 and the balustrade at second floor level. These elements have value in telling the story of the adaptation of Caernarfon Castle as a visitor attraction. However, their significance is limited by the extent of their contribution to understanding the narrative of the Castle, and any harm caused by their installation.

Their removal is preceded by a thorough record of their installation and existence, and succeeded by a scheme of making good where any interventions have previously caused harm to the historic fabric. Their removal will facilitate further scanning and understanding of the historic fabric, particularly in Tower 2. It also provides the opportunity for greater holistic understanding of the building, and for a moment, we will have a complete picture of the King's Gate as it was before any of these interventions were put in place. This will be captured and recorded for posterity, making a significant contribution to the documentary archive that is available for this building.

The second element of fabric removal relates to a small amount of consolidated rubble at the top of Tower 2, on the second-floor level, associated with 20th century consolidation and installation of the current roof. The removal of this fabric, a major change to the historic fabric, is required to facilitate the installation of the deck level and the associated seating area. The amount of removal has been limited to the minimum necessary in order to mitigate the harm of the loss of fabric, and the area of unconsolidated stone towards the curtain wall will be left uncovered, but sheltered by the seating furniture.

The shape of the area will remain visible underneath the seating furniture, and the form will still be clear to visitors. This fabric makes a contribution to the understanding of the development of the King's Gate due to the later scheme of works to establish the Castle in its current form after years of decay, neglect and theft. However, fabric associated with these vast schemes of rebuilding and consolidation over the 20th century is not limited to this area, and is generally of lower significance within the context of the King's Gate.

The removal of this small amount of fabric will support the creation of greater visitor access at this level, which will outweigh any potential harm of its removal. It is also necessary to install a lead overflow chute through the existing stone through careful removal of the minimum fabric required. The existing fabric will remain exposed above. In order to further mitigate the potential impact of fabric removal, it is proposed that removed built fabric is set aside for potential re-use to be identified as the works progress on site.

Further works relating to the existing historic fabric of the King's Gate can be defined as minimum intervention conservation work. Generally, this covers the removal of algae or other vegetation growth, raking out and repointing of limited areas, localised stonework replacement, and the consolidation of sculptural stonework, wall heads, toothing and exposed core. These works are all vital to the ongoing open access to the building, and the longevity of its historic fabric. Works relating to brushing down of masonry, removal of embedded ferrous fixings, repointing of masonry, light DOFF cleaning and removal of vegetation will be carried out in line with understanding of current best practice (British Standards BS:5390, Historic England, *Repointing Brick and Stone Walls: Guidelines for Best Practice* (2017), and the proposed Architectural Restoration Specification: Fabric Repair Works.

8.2.2 Impact on Scheduled Monument

Most of the conservation and repair works relate to the removal of 20th century interventions that have been put in place by the Ministry of Works, and as the building was adopted for use as a visitor attraction by Cadw. Though many of these will be replaced with modern and more appropriate alternatives which will be discussed elsewhere, the removal of these elements provides a rare opportunity for a more complete vision of the King's Gate. It will provide specialist access to areas that have not been visible for decades, for both study and scanning, helping to augment further understanding of the heritage, and facilitate its recording for posterity. These benefits are considered to augment the importance of the scheduled monument. Cleaning and fabric repair works are to be carried out in accordance with best practice guidance in order to protect the building from unnecessary wear and tear, helping to increase the longevity of the historic fabric.

The largest impact on the scheduled monument relates to the removal of fabric at second floor level.

Any removal of historic fabric will be subject to archaeological monitoring. Newly revealed fabric will be recorded by 3D laser scanning, with the data amalgamated with the existing point cloud. This will be accompanied by a detailed written and photographic record, to complement the existing historic building record and survey.

8.2.3 Impact on OUV + Attributes

Removal of historic fabric is minimal, and has minimal impacts on very small parts of the attributes of OUV. The proposed removal will have no impact on the form, decorative or structural detail of those affected attributes of OUV. Details of proposed new interventions that have direct interactions with the historic fabric for the installation of new floors and platform can be found in 8.3 Structure.

The removal of modern fabric within the King's Gate is a minor change with minor benefit. Though these elements play a role in understanding the development of the King's Gate into an attraction, their removal provides an opportunity to make good any previous interventions, and enhance the conservation philosophy behind the installation of intrinsic elements such as these. Their removal and replacement is an identifier of the next stage of the Castle's development, one which seeks to broaden its visitors and their understanding of the significance of the Castle through increased access. These elements are not, however, representative of any OUV or Attributes, and therefore make no contribution to the understanding of the building's significance criteria as captured in the inscription.

The localised removal of stonework is considered a minor change, which therefore has a minor beneficial impact on the OUV. In order to mitigate the direct harm, the fabric elements proposed for removal have been carefully considered and minimised where possible. For example, the removal of stonework around the tower voids at second floor is the minimum necessary to facilitate the installation of furniture which will enhance public benefit. Additionally, these elements are considered to have less integrity and authenticity than other elements within the King's Gate due to the schemes of repair works carried out in the mid-20th century. We believe that this change therefore has a benefit to the public and to the World Heritage Site.



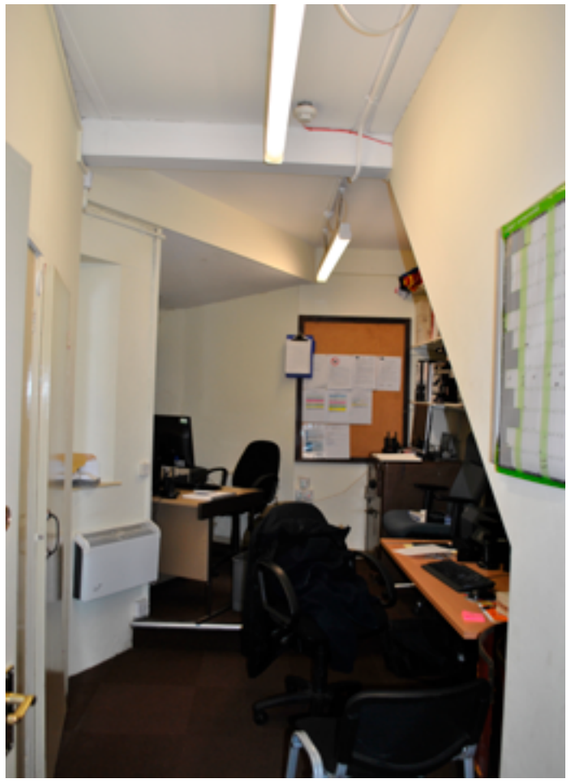






Figure 18 Examples of modern fabric to be removed

8.3 Structure

Drawing Numbers: (16) 100, (22) 101, (23) series, (47) series.

8.3.1 Impact on Historic Fabric

8.3.1.1 Floor Plates

The floor plates vary in specific details, but the concept of their installation remains the same. At each level, a steel ring-beam-like structure will sit on available ledges and corbels. This will be buffered by mortar packing to avoid damage and to level height, where appropriate. The ceiling and floor structures will be attached to the structural steels, with a small perimeter channel so they are not abutting the existing wall. Walls will have ventilation at the top and bottom in order to facilitate airflow to the existing fabric. Each new floor plate will include an under-floor heating system.

Basement foundations under Tower 3, and under the lift shaft in Tower 1, will be excavated under an archaeological watching brief to establish that the works are not causing harm to any significant buried archaeology. A 100mm sleeper block wall will sit on a foundation, with a pre-cast concrete beam and block floor system to support a 75mm screed and the associated floor finish. The floor plate in the basement of Tower 3 will sit on the existing concrete base. Timber joists will sit on a breathable damp proof membrane, with a 22mm plywood floor. By using the structure already there, the new floor required for the conversion of the basement for WC use will be a minor change to this space.

On all levels, across all towers, the new timber floor plates will have a removable channel around the edge of the wall in order to facilitate access to services if necessary.

Evidence of the removal of the existing floor structure, such as holes for beams that are not intended to be reused in the proposed work, will be left visible.

The intention is that the installation of new floor plates will not require the removal of any historic fabric, and a minimum intervention solution has been devised in order to use suggestions of floor structures already available within the King's Gate. Where historic fabric must be used to support the floor structure, i.e. ledges and corbels, these will be protected through mortar packing to avoid damage. The decision to include ventilation and removable panels means that these areas remain accessible, and the installation of the floor plate will not hinder any required access or movement of air, minimising the potential long-term effects of including floor structures, especially where there currently are none.

8.3.1.2 Top Deck

The approach to the top deck follows the rest of the floor plates; minimum intervention where possible. Due to the existing consolidated stonework around the top of the two tower voids, there is some proposed localised removal of stone to facilitate the introduction of the deck and supporting structure. In other locations, some localised wallhead rebuilding will be required using salvaged stonework in order to facilitate level access. The floor plate is intended to sit below the parapet as an identifying factor that the modern interventions are deferential to the historic fabric, and to minimise visual impacts from oblique angles. The level of the floor has been chosen to respond most appropriately to the undulating surface atop the tower, but sits below the decorative corbelling on the curtain wall of the King's Gate, taking into consideration the highest point of the existing fabric, and finishing below the parapet.

Mortar screed is proposed as a buffer between existing and proposed structure, with lead cover flashings taken into mortar joints, a waterproof membrane and some metal box gutters and internal drainage arrangements to deal with the closing of the voids at top level. The decking boards are Accoya, designed to be long lasting and respond to natural weathering. The principal impact on the historic fabric is the removal of the elements at the top, which is explained further in 8.3 Structure.

8.3.1.3 Tower 3 Roof + Wall

The new Tower 3 wall and roof sit off the structural floor plates described in 8.3.1.1 Floor Plates. The wall is stepped back behind the parapet and ledge of the existing fabric to demonstrate a legible difference between the new structure and the old. The wall is constructed of 18mm cementitious board with a breathable membrane, with12.5 mm plasterboard with 3mm skim and 25mm battened services zone. The exterior of the wall is clad with Accoya.

The wall is sealed at either side to the existing historic fabric to create a hospitable space on the interior, and a gutter is situated below, hidden by the parapet. The oriel window is glazed on all sides so visitors can see the stone surrounds.

The Tower 3 deck forms the roof to the space below, and is connected to the top deck by tiered seating and a staircase. This creates a route between the towers, and an outdoor auditorium space that can be used for education or general seating. The internal space created by the enclosure of Tower 3 with the deck reflects the tiered seating above, highlighting the modern structure, and how the two spaces interact. The external timber of the wall is specified to match the dark accents of the tiered seating, making a visual connection between the material palette of the modern interventions.

8.3.2 Impact on Scheduled Monument

The methodology and conservation principles outlined for the installation of new structural elements are based around minimum necessary intervention and legible modern additions, in line with best conservation practice. The installation of these new structures does not harm the castle's potential evidential values. The interpretation of these spaces, made possible through the installation of new floor plates, enhances understanding of how the King's Gate may have operated, which is particularly useful given the tower's unique configuration (itself a contributing factor to the significance of the Scheduled Monument) and significant function within the castle and the town.

8.3.3 Impact on OUV + Attributes

The installation of replacement, or creation of new floor plates, throughout the towers of the King's Gate is not a major change to the fabric of the building due to the efforts made through mitigation. However, it is a major change to the current understanding of the space as the void of Tower 1 will no longer be visible from basement to second floor. The proposals seek to mitigate the impact of a major change in order to create a major beneficial outcome, specifically in relation to the major public benefit of greater understanding of the significance of the World Heritage Site. The structure and material palette of the floor plates is clearly a modern intervention, and unlikely to be mistaken for historic fabric. In this way, it does not seek to "complete" this incomplete element of the King's Gate. The unfinished nature of the gatehouse is a key attribute of the OUV relating to architectural values, and therefore has been considered carefully against the beneficial impact on the understanding of the Castle's structure and function. The installation of floor plates in Tower 1 will provide close-up access to elements of architecture that demonstrate the building's use. Features such as fireplaces and ceiling beam sockets, identified in the Archaeological Survey, are attributes of the OUV. Providing clearer access to these elements, which are currently only visible from oblique angles, is a beneficial impact of the proposed changes which is intrinsic to the desire to enhance significance and understanding. In both towers, the plates respond to the existing, and using these levels provided within the historic fabric, will help to give an impression of the size and volume of spaces within the tower when it was occupied. The existing floor plates in Tower 2 will be upgraded, and efforts made to mitigate any harm caused by their installation through localised repair works. Similarly, these works are intended to provide public benefit by supporting the running of the Castle as a visitor attraction.

The principal benefits of installing new floor plates across all 3 towers are: better conservation of the fabric through well-thought out interventions and limiting atmospheric impacts, and increasing visitor access to, and understanding of, the historic structure. This is especially the case with the proposed deck level at second floor. Though it will cover the existing walkways, the structure has been designed to respond to the voids over the towers and the chapel by incorporating elements of interpretation into their design; such as the outline of the tower shape being echoed in the timber of the deck, and the installation of smart glass in the voids to facilitate continued understanding of the space over multiple levels, which is discussed further elsewhere. The use of timber is intended to be respectful to the material palette originally intended for the King's Gate, which we have a good understanding of due to the existing documentary records which contribute to the OUV of the castle. The timber proposed is modern and fit for purpose, not seeking to feign historicism through untruthful weathering or historical facsimile, in line with Article 9 of The Venice Charter (1964). The use of this space also allows for further interpretation of these records, which are not available to, or understood by visitors to the castle presently. For these reasons, the proposed new structures will have a major beneficial impact.



Figure 19 Fireplace in Tower 1

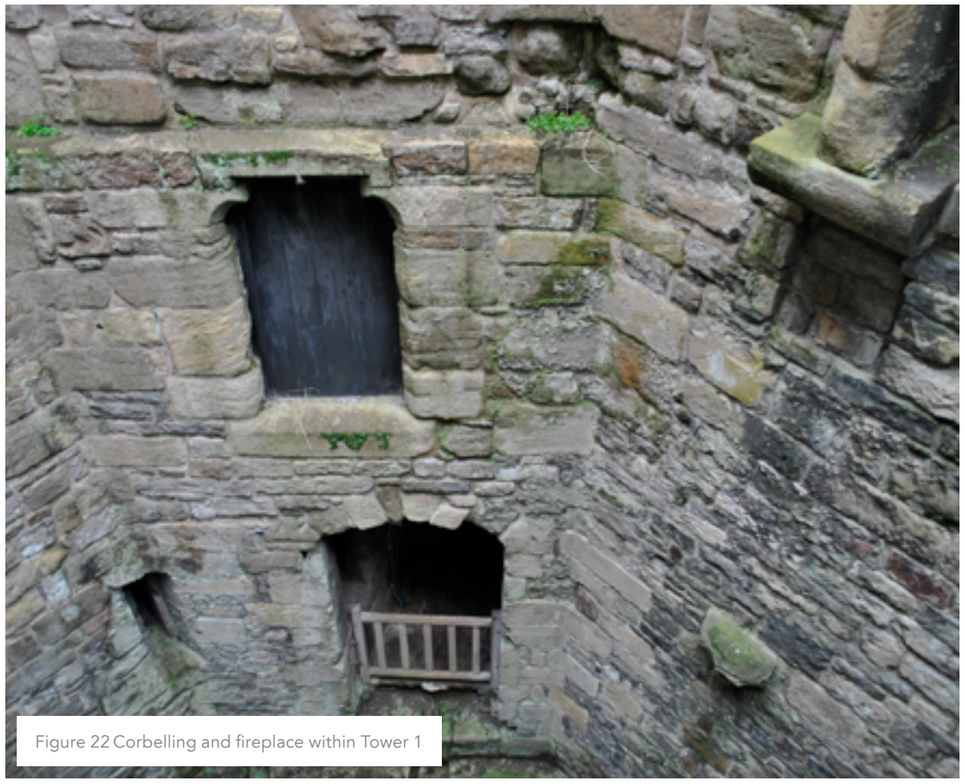


Figure 22 Corbelling and fireplace within Tower 1



Figure 21 Currently inaccessible windows providing views over Caernarfon



Figure 20 Current roof of Tower 3 to be enclosed in proposed scheme

8.4 M+E + services

Drawing Numbers: (23) 100

8.4.1 Impact on Historic Fabric

8.4.1.1 Ventilation

The works to the openings described in 8.5 Openings, do not propose to seal the windows or doors completely, meaning that the towers have a natural airflow. A supply fan will be built into the benches at second floor level and draw air into the spaces below. Each floor level will have a fan to draw through this air, enhancing the natural airflow and internal atmosphere. Ventilation for the kitchen and toilet installation in Tower 3 will be built through the new wall panel at first floor level. The proposals will not directly interact with any historic fabric.

8.4.1.2 Electrical

Electrical services will be run vertically through a riser and sit within the floor plates. Each tower has a riser that has been positioned in a location that has the least impact on historic fabric by establishing the clearest route with little or no distinguishing features in the stone. The risers will be built in timber and fixed to mortar joints to minimise impact on the historic fabric. Where electrical services are required to be run underground at ground floor level, existing routes will be used wherever possible, namely for Tower 2. Tower 3 will require the routes to be reopened and expanded from a previous intervention, and a new route will be run through to Tower 1 as this is the first-time power will be required in this location. It is proposed that a secondary threshold, a more recent addition, will be removed to facilitate access. The earlier threshold stone will remain in place. The principle of alteration is for the floor to be lifted, recorded and re-laid as existing.

8.4.1.3 Lighting

Lighting will be built into floor plates where possible or necessary. Lighting in passages will be up and down wall lighters to make spaces hospitable and safe.

8.4.2 Impact on Scheduled Monument

Works seek to minimise potential impacts on underground archaeology by, where possible, using existing areas of excavation and intervention. Where this is not possible - for example, with services to Tower 1 - these will be carried out under a watching brief to ensure the approach is appropriate. The installation of ventilation services to enhance the existing natural ventilation is intended to retain the significance of the scheduled monument by protecting the historic fabric from potential deterioration relating from increased use. The proposed M&E services do not pose a direct harm to the significance of the Scheduled Monument or threaten the integrity or authenticity of the heritage as these functions will be clearly modern and intervention limited.

There have been ongoing excavations under a watching brief since 2017 in a successful collaboration between Salford Archaeology, Cadw, and the contractors on site. This archaeological monitoring also provides the opportunity to understanding the development of the castle as work progresses.

8.4.3 Impact on OUV + Attributes

The M+E services themselves do not directly interact with any attributes that are present within the King's Gate and convey the OUV of the inscription. Areas where more broad intervention is required, such as the installation of risers, have been identified for their lack of features that may be obscured, and therefore harm the understanding of the significance of the asset. Overall, the M+E Services interventions are a minor change due to the visible elements, with a minor beneficial impact.





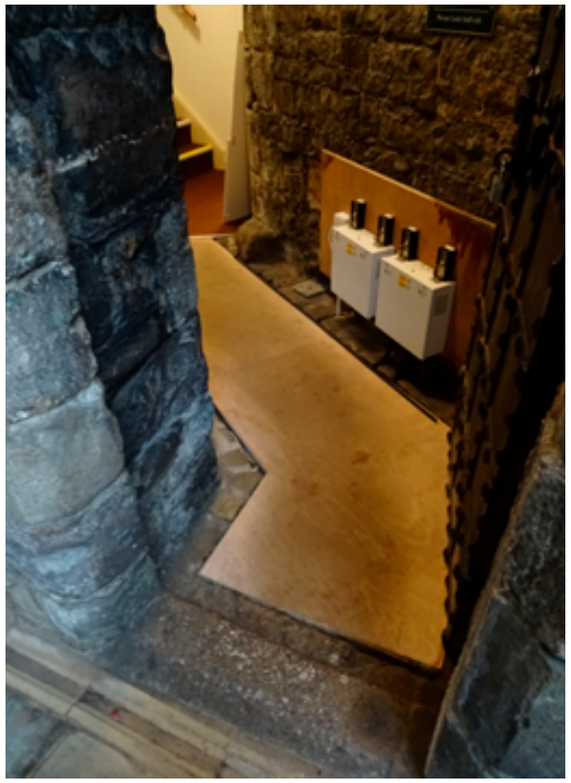




Figure 23 Examples of existing lighting + electrical fittings

8.5 Openings

Drawing Numbers: (31) series, (32) series, (43) series,

8.5.1 Impact on Historic Fabric

Proposed doors and frames are bespoke to match the existing profiles of the historic fabric, especially the significant "Caernarfon arch" (also known as a shouldered arch), and vary in the positioning of their vision panels. Where the heads and jambs abut the historic fabric, there is a requirement for an intumescent mastic and fire rated packing material to respond to fire safety requirements. The doors contain supalux boards with fire sealant and fire-resistant glazing, though neither of these interact with the historic fabric.

The proposed different window types follow the same principle. These are glass infills with the panel heads shaped to suit the existing openings or stopping at the existing transom line, for example on the second floor. These will have a nominal 20mm gap between the glass edge and the existing wall and be fixed by bespoke stainless-steel clamps and fixed into mortar joints. These window types have been designed with the intention of minimising direct interaction with historic fabric; the principal intervention is the insertion of the clamps into the mortar joints, which is best practice. The oriel window proposed to enclose the first floor of Tower 3 also does not directly interact with the historic fabric; instead using the installation of the new wall structure for support, and has glazing around the edges to allow visual understanding of the historic fabric around it.

When access is possible to the murder holes and any other spaces that are currently restricted, the best approach to each individual space will be established based on these principles. It is likely that the murder hole at deck level will receive the same glazing treatment outlined above, depending on its size.

Arrow loops will either be fitted with a glazed panel attached in the above way or obscured with a small number of bespoke fabricated bars to dissuade direct interaction with the arrow loop. Again, the impact here is the interaction between the clamps and the mortar joints, which is a negligible change and minor impact.

The glazing for all openings is intended to be optiwhite to reduce the green-ish colour and minimise visual impacts both internally and externally.

8.5.1.1 Chapel Voids + Openings

The chapel voids, the two rectangular voids from second floor level through which the chapel below is visible, will still be clearly legible within the new floor plate at second floor level. It is proposed that structural steels will sit inside the floor plate, atop the existing fabric, around the existing voids, and infilled with switchable smart glass. This means that the glass is bigger than the void so visitors are able to maintain lines of sight throughout the King's Gate, especially to the Chapel below. The smart glass also facilitates privacy. The decision has been made to keep some level of transparency through these voids in order to allow visitors to understand the interrelationship between the spaces within the King's Gate.

The portcullis chase and meurtrieres within the Chapel and the King's Gate more broadly are recognisable features of military defensiveness. In the proposed scheme, these elements remain visible to the visitor, but with additional interpretation to explain their use and significance to members of the public.

8.5.2 Impact on Scheduled Monument

The proposed changes to the openings within the King's Gate are a minor change. The physical impact of the new glazing will be restricted to mortar-joint fixings in line with best practice. They will also assist in providing a hospitable environment for staff and visitor use, and help to protect the building from weathering. These changes are all reversible, and are clearly demonstrable as modern interventions.

Most interventions relating to openings seek to mitigate the harm of change by following best practice, including new fixings being inserted into mortar joints, and new fabric not obscuring the historic. For example, the timber of the doorways abuts the historic fabric, but does not obscure it, and retains the significant "Caernarfon arch." Overall, these changes to openings within the King's Gate seek to: improve previous unsuitable interventions, increase visitor interaction (particularly with windows, arrow loops and murder holes), and provide an hospitable environment for staff and visitors alike.

Due to the minor scale of change in these fabric interventions, there is minor harm to the significance of the scheduled monument, with a moderate beneficial impact. It is hoped that by increasing engagement with these architectural elements, the building will be better understood, and visitors will have an enhanced understanding, as nothing is lost from the building by creating these improved environments.

8.5.3 Impact on OUV + Attributes

The windows and doors within the King's Gate represent both the domestic and military functions of the structure, meaning that all openings within the King's Gate are attributes that belong to Value 1 and 2 of the OUV. Wide doorways demonstrate reduced defensive intentions; however, multi-directional arrow loops demonstrate the opposite. This is the intrinsic paradox of the King's Gate. Doors with a "Caernarfon arch" are the most recognisable attribute of OUV in relation to the openings, and the proposed method of minimal intervention intends to preserve and enhance this distinctive shape. The portcullis chase and meurtrieres are also attributes that contribute to the OUV of the King's Gate, specifically in relation to the military architecture of the gatehouse. These will be retained and more comprehensively interpreted as part of the new proposal in order to enhance understanding of the King's Gate's value.

The arrow loops within the King's Gate are a particularly important attribute that ascribes the OUV as they contribute to multiple values outlined in the inscription. Multi-directional, and bulging at the base to increase the firing angle, these arrow loops outline the military strategy built into the architecture. That these arrow loops face over Caernarfon demonstrates the relationship between the gatehouse and the walled town. The arrow loops are in each mural passage and are placed on the inner face of the tower, and in the basement for a firing line over the moat. They are perhaps the most recognisable and ubiquitous defensive element built into the castle, and one identified by visitors during audience research as something they understood. The arrow loops therefore play a large role in the understanding of the King's Gate and its function. Currently, access to these arrow loops is limited due to the visitor layout of the King's Gate, and through previous poor interventions. The two proposed types of arrow loop treatments described above will facilitate understanding by removing previous inappropriate interventions and replacing them with high quality options that minimise impact on the historic fabric. Both the glazed and unglazed arrow loops will be read more clearly due to the simplicity of the design. Visitors will still be able to understand how these transitional defensive spaces operate between the interior and exterior of the King's Gate, especially where other interventions such as the second-floor deck provide greater access to these spaces. The new scheme also provides potential opportunity for interpretation of the meurtrieres.

The glass infills of the windows are designed to be recognisably modern, in line withe Article 9 of The Venice Charter (1964), by sitting behind the principal structure. The new glass will improve the internal atmosphere of the King's Gate where they are employed, whilst not obscuring the historic fabric. The fixings proposed are intended for minimum intervention and will be fixed into mortar joints in line with best practice. The oriel window in the wall of the Tower 3 extension facilitates continuation of the existing visual relationship between this tower and the rest of the castle, whilst creating a new useable space.

Due to the consistent application of this methodology across the King's Gate openings, this is considered to be a moderate change, having a moderate beneficial impact, specifically on audience understanding of attributes that directly contribute to the OUV of the WHS inscription. There is no damage to the fabric, and the oriel window structure allows better understanding of the existing fabric. The new fabric required to implement these changes minimise direct interaction with historic fabric where possible. As it is creating a new space, the new room at the first floor of Tower 3 is also considered to have an impact of moderate harm with moderate-high benefit.

The principal attribute of this space is the unfinished nature of the structure. The proposed structure and material palette do not seek to finish this structure, which will be clearly legible. It minimises the impact on any other element that could be considered an attribute of OUV, whilst providing new space for visitors to experience and use within the King's Gate.

Due to the proposed new floor plates in the towers, the voids between the second floor and the Chapel will become the principal elements that highlight the relationships between the spaces within the King's Gate. Due to the important role of the Chapel within the King's Gate and how this relates to the dual military and domestic function of the space as identified in the OUV, it is important to retain this connection whilst providing a safe and accessible space for visitors and staff. The installation of switchable smart glass will provide a compromise between the area being left completely open but barriered, or completely closed and lost. This solution minimises the potential visual impact of an additional balustrade or other protective structure at this level and seeks to retain the spatial relationship both visually and through the diffusion of light through the space.







Figure 24 Examples of modern interventions in existing openings to be updated





Figure 25 Examples of historic openings which will be better accessed as part of the proposed scheme

8.6 Facilities

The proposed interventions to support the new scheme have been designed with conservation philosophy in mind, seeking to mitigate harm wherever possible. However, even in areas where there is no direct interaction with the historic fabric, or any required interaction has been mitigated to the best of our current ability, the wholescale adaptation of the way the King's Gate functions, is a major change.

Drawing Numbers: (02) 202, (02) 402, (04) series, (05) series, (06) series, (20) series, (22) series, (43) series, (45) series, (73) series, (74) series.

For reference, the proposed wall types are summarised as:

- **Wall Type A**: 100mm 60-minute fire rated stud wall. 48mm Gypframe C Stud with 2no. 12.5mm Gyproc Wallboard either side. Fixed top and bottom to proposed structure.
- **Wall Type B:** 75mm Independent Wall Lining System at 300mm centres with applied cementitious board and offset from existing wall approx. 200mm. Allow for ventilation grilles at base and head at 1500mm centres. Fixed top and bottom to proposed structure.
- Wall Type C: Block Wall with 3mm plaster skim. Fixed at base and head.
- **Wall Type D**: Integrated Plumbing System panel with 250mm void for services. Fixed top and bottom to proposed structure with supporting metal stud Independent Wall Lining with plasterboard lining to tie back to.
- **Wall Type** E: Circa 90mm timber stud 'half-height' wall with 18mm plywood to fix kitchen units. Fixed at the bottom to proposed structure and kitchen units to stabilise.
- **Wall Type F**: Timber stud wall with vertical timber cladding. Fixed top and bottom to proposed structure.

8.6.1 Impact on Historic Fabric

8.6.1.1 WC – Tower 3

The fabric removal associated with the new WC in the basement of Tower 3 refers principally to the strip out of existing modern fabric, and the associated work to make good, in accordance with Schedule of Work item 107. Historic fabric in this area dates from 1295-1304, therefore the potential harm of new interventions, namely an independent wall lining system, is high. However, there is evidence that there has been remodelling in this area, therefore obscuring it with the wall lining system may have a less harmful impact.

Blockwork walls (Wall Type C) will sit 50mm away from the existing fabric, ensuring that the blockwork does not touch existing fabric. This will be secured to the new floor structures at base and head. Wall Type D will be fixed to the blockwork wall, supported by a metal frame. Further details of this can be found in the (22) 100 drawings. Where necessary to be fixed back to existing fabric, these will be inserted into mortar joints to avoid damage to historic stone, in accordance with best practice. The potential impact of the new floorplates is explored in 8.3.1.1 Floor Plates.

8.6.1.2 Café + Overflow/Education Room

Soft strip and fabric repair consistent with the rest of the tower. The café spaces situated in Towers 1 and 2 will retain their existing exposed historic fabric. The principal fabric intervention relating to the installation of the café is situated in Tower 3, with the introduction of the servery, and the formation of an additional space through the installation of a new wall, explored in drawing (22) 101. The proposed timber stud wall with vertical timber cladding will be fixed top and bottom to the proposed structure, as discussed in 8.3 Structure.

8.6.1.3 Staff Accommodation/Back of House – Tower 2

Soft strip and fabric repair consistent with the rest of the tower. It is proposed that the staff accommodation will have a 90mm timber stud "half-height" wall on three internal elevations of the tower (Wall Type E), set approximately 20mm from the existing fabric. As with other wall types, it is proposed that these wall structures will be fixed at the bottom to the proposed floor structure 8.3 Structure. The additional kitchen units will be used to stabilise the structure, therefore mitigating the need for further intervention in the historic fabric, beyond the installation of the structural floor plate.

A new wall will be installed at ground floor to create a storage space at this level and contain the staircase on the ascent. The wall will be proposed Wall Type A. Due to its key position in the fire strategy, the specification of this wall is marginally more intrusive than the previously discussed specifications, due to its required fixings. Wall Type A, which is approximately 100mm and 60min fire rated, will be attached to the existing fabric by attaching timber wrapped in DPC using Gyproc sealant to seal air gaps and reduce air leakage for sound and fire performance. The frame will be fixed to the top and bottom of the proposed structure, as discussed in 8.3 Structure.

Installation of new staircase in this area is covered in 8.8 Stairs.

8.6.1.4 Entrance Sequence/Ticket Desk

The entrance sequence and ticket desk area are proposed to stay largely as existing, with some changes to support the use of the building. For example, the relaying of the floor to ensure level access. Where necessary, this will be removed and carefully recorded, allowing each stone to be reset as existing. The desk that has been hosted temporarily in the Eagle Tower will be reassembled in the entrance foyer and repositioned, allowing better visitor flow and wayfinding.

8.6.1.5 Retail

There is little intervention in the retail space, except for the replacement of the floor, covered in 8.3.1.1 Floor Plates. Generally, the changes in this area are intended to relate principally to the layout and furniture, which is beyond the scope of this document.

8.6.2 Impact on Scheduled Monument

The facilities in Tower 2, retail and entrance are generally improvement works on the existing. They have been designed with conservation philosophy at the fore to avoid potential harm to the historic fabric where possible. The largest potential for harm to the scheduled monument is the installation of the WC in the basement of Tower 3. However, any excavation required will be undertaken under a watching brief, and the area has been recorded as part of the Level 4 survey to enhance our understanding of the building's structure and construction. Some excavations have already been undertaken here, recorded in 16.8 Salford Archaeology. The King's Gate Historic Building Investigation Interim Report, Caernarfon Castle, Caernarfon Archaeological Evaluation. 2017, and it appears that there has been lots of remodelling within the basement area. Therefore, the impact of obscuring of the original fabric is reduced. Any ground disturbance works will be closely monitored by an appropriately experienced archaeologist.

8.6.3 Impact on OUV + Attributes

8.6.3.1 WC – Tower 3

Construction of a WC in this space is considered a major change from its current format, and therefore the mitigation of harm in this area is paramount. It does not directly interact with the historic fabric, and as previously explained, the fabric it obscures has been previously altered, diminishing the possible harm of this change on the attributes of OUV. It is also important to note that these walls are required to prevent potential damage to the existing historic fabric through visitor use or passive effects of the new use at this level. The potential harm of the new wall structures has been mitigated through the format of wall construction outlined above, with the walls being anchored at base and head to the new floor plates, helping to ensure minimal intervention in the historic fabric, which is limited to some fixing back into mortar joints.

The benefits of installing the WC at this level are threefold. First, it provides additional WC service for staff and visitors. Second, it helps to consolidate some visitor services into one space, which limits the potential fractured spread of visitor services across the Castle and positions the King's Gate as the beacon for visitor activity. Third, the inclusion of a Changing Places WC means that the Castle is more accessible to a much broader range of visitors. There are only a handful of Changing Places toilets across Wales. One is situated at Caernarfon Station, thus significantly enhancing potential visitors that might have requirements for these facilities. The proposed floor finish in this area is applied to new fabric and therefore should have no impact on existing historic fabric. Overall, these outcomes result in a major benefit.

8.6.3.2 Café + Overflow/Education Room

The use of this area is intended to be twofold, therefore it must be flexible and reactive to the needs of the Castle. It provides a dedicated education space to host school and

other education groups, whilst also providing café visitor overflow when required, most likely the summer months when tourism is higher. The largest change with the largest impact in relation to the café is the creation of an enclosed space at first floor level with the introduction of the servery. The change of the way this area of the building functions has the most potential for significant impact on significance and OUV. However, opening up flexible space that supports the education aims and objectives of the project is a major benefit.

8.6.3.3 Staff Accommodation/Back of House – Tower 2 Mezzanine

Staff accommodation in this scheme of works is intended to remove previous modern interventions, particularly in Tower 2, and update them to provide more efficient use of space that serves staff more appropriately. It seeks to reverse and mitigate previous harmful interventions into the historic fabric. The soft strip and making good of these spaces will enhance the attributes of OUV in these areas by removing distracting or inappropriately placed elements, helping to focus on elements such as fireplaces. The new insertions are designed to limit interaction with the historic fabric wherever possible, except for fire sealing. Kitchen units will better respond to the existing fabric, and more historic fabric will be retained on view. This change is considered to be moderate as it is a replacement of existing modern fabric with elements that are more appropriate and installed in a more appropriate way, the impact of which will be of moderate benefit to the individual Tower and the King's Gate overall.

8.6.3.4 Entrance Sequence/Ticket Desk

Changes relating to the entrance sequence and ticket desk focus principally on the relaying of the floor to gain level access; a beneficial impact of increasing physical access to the Castle. This change is considered moderate rather than major as it is an update to the existing entrance sequence and glass box. Mitigation of harm has been built into the methodology through the recording and relaying of the floor as existing. The proposed changes sit alongside the most recent scheme of intervention in this area, with the removal of the existing ticket desk and installation of the new one, removed from the temporary Eagle Tower entrance. The new ticket desk is intended to sit off-centre to avoid being directly in the line of sight through the King's Gate passage from the entrance through to the wards. It will also facilitate better visitor circulation and direction by providing wayfinding services. Overall these changes will be moderately beneficial to the visitor flow and experience of the King's Gate.

8.6.3.5 Retail

The proposed changes within the retail space are considered minimal, with a minor impact. The most recognisable change is the installation of the new floor which has been designed in accordance with conservation principles. The other changes are modifications of its current state and have limited impacts.



Figure 26 Basement of Tower 1 for proposed WC

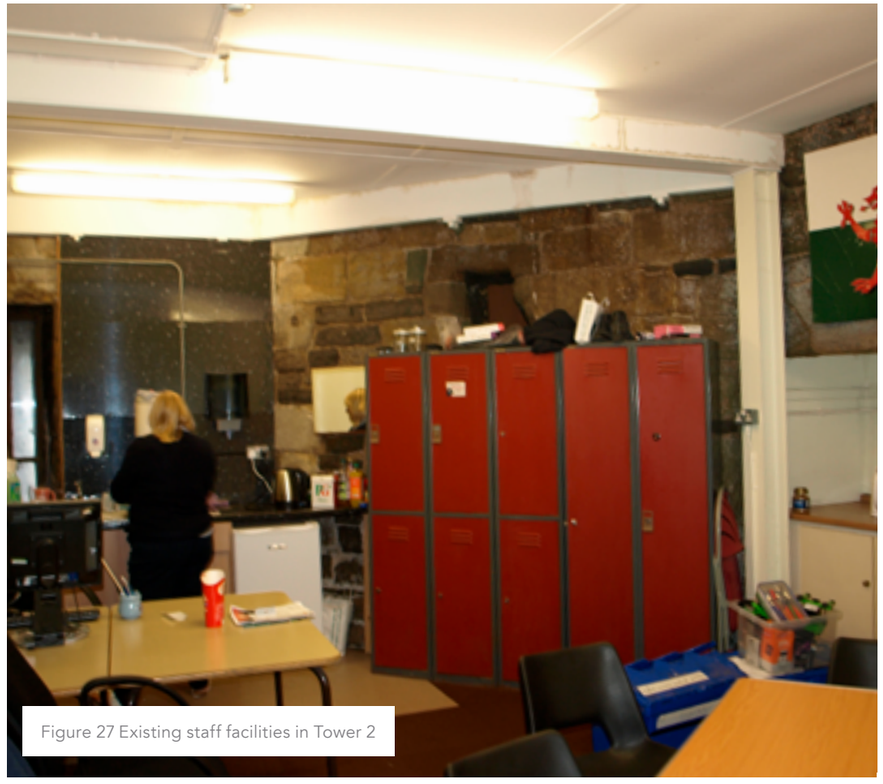


Figure 27 Existing staff facilities in Tower 2



Figure 28 Existing retail offer to be updated

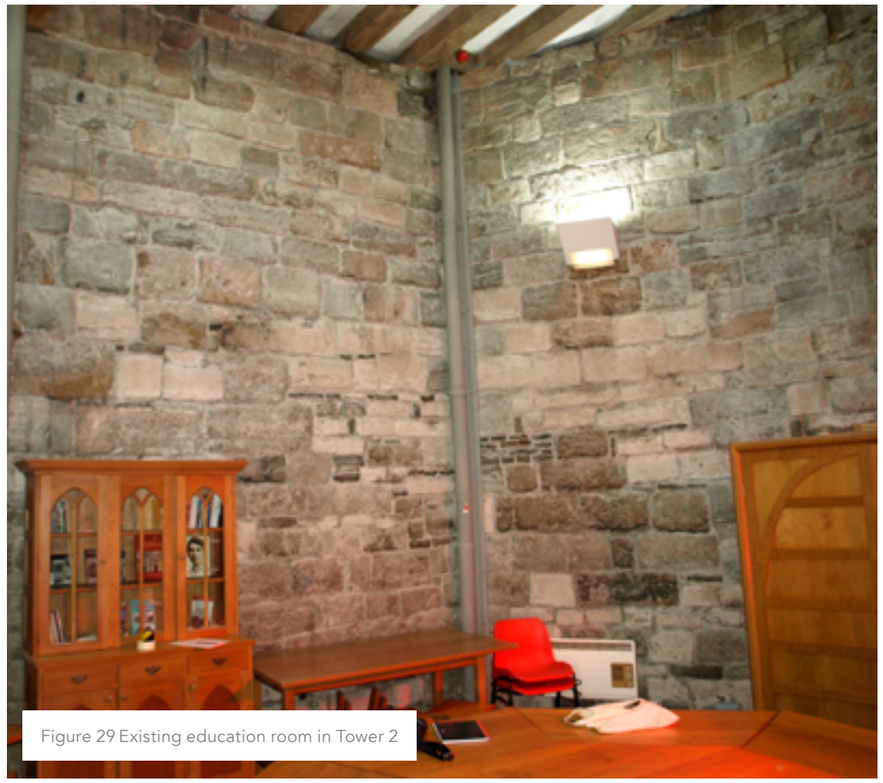


Figure 29 Existing education room in Tower 2

8.7 Lift

Drawing Numbers: (15) series

8.7.1 Impact on Historic Fabric

8.7.1.1 Lift

The installation of the lift is the single biggest intervention within the King's Gate. It has been designed, however, with minimum intervention in mind wherever possible, in order to reduce its impact on the historic fabric. The lift is anchored by a concrete lift pit slab, which will be excavated and installed under a watching brief to avoid or limit intervention below ground. The block wall of the lift pit is intended to sit inside the profile of the existing stone wall without interaction or abutment, though a firestop will be inserted between the two walls and the new floor levels at the minimum required, for safety purposes. The glass mullions that support the structural curtain wall glazing system will be anchored into the steels in the floor to provide structure and stability. The glass will be scribed to suit the profile of the existing wall with a nominal gap of 22mm to respond to the requirements of the lift installation, whilst minimising the necessity for interaction between new and historic fabric. It is also proposed that the glass is optiwhite, to reduce potential visual impacts of greener glazing. The existing stone wall will be exposed within the lift shaft, and the second-floor emergence of the lift will be enclosed by curtain glass walls on all sides and the roof. The width of the panels gets narrower at second floor level at its most visible point.

8.7.2 Impact on Scheduled Monument

The lift has the largest scale of change, and therefore the largest potential impacts. As described below, the lift has been designed to minimise intervention with the historic fabric where possible. The lift pit will be excavated under watching brief to ensure best practice is applied to this sensitive area of the Castle. The clear glass of the lift will retain visual understanding of the historic fabric, and it is not intended that the glass is sealed in order to remove an additional element of potential harm.

8.7.3 Impact on OUV + Attributes

The King's Gate was built as a military structure, which is recognised within the World Heritage listing. As such, it was not designed to be easily traversable, and contains many small, steep staircases that are specifically designed to make it more difficult for people to move upwards through the tower. That does not mean, however, that it must remain impenetrable today.

The installation of the lift in Tower 1 is a major change and the most significant intervention within the context of the historic fabric. It has the most wide-ranging potential for impact, including fabric intervention and visual implications. However, it is also the change with the largest potential for benefit. The lift shaft has been carefully designed and engineered in order to minimise potential impact on the historic fabric. At ground and first floor, the design of the lift structure has been reduced to only 2 columns and a ring beam to reduce visual impacts. Additionally, the columns are set in the middle of the lift shaft to create a clean glass edge and give the illusion of a smaller structure. It is anchored at the plate on every floor, which is discussed in 8.3.1.1 Floor Plates. The lift pit in the basement is as small as it can possibly be to support the lift structure, and the associated excavation works required will be carried out under watching brief, after a thorough Archaeological Building Record Survey has enhanced our understanding of the potential for archaeology or further evidential information in this area.

The lift is glass to minimise its visual impact within the castle, as discussed in 8.11 Key Views Within the King's Gate Project Area. This means that the existing historic fabric is visible through the lift shaft at all times, and does not block visitors from reading the whole surface of a room's walls as it would if it were opaque. At the top level, the glass panels are smaller to try and minimise the mass that is required at deck level, understanding that the lift must seek to be deferential as possible to the existing fabric. These choices also recognise the visual impacts from within the Castle, explored in 8.12 Key Views Within Caernarfon Castle, and seek to minimise and mitigate the visual intervention when viewing from other locations.

The lift position has been carefully chosen. The design team carried out a thorough options study in order to isolate the best location - and angle - of a potential lift, taking into consideration views within the King's Gate, and into the Castle from the Town, demonstrated in 16.4 Buttress. Feasibility Study Report. 2017. This was carried out in consultation with Cadw at multiple stages to ensure decisions were informed and clearly communicated. Lift options considered visitor experience and logistics, but also the potential harm that could be caused through the lift's installation. For example, an earlier scheme placed the lift so it emerged directly in front of the windows on the King's Gate curtain wall, which would obscure one of the features we are seeking to enhance through greater public access. The final version of this options appraisal is included in 16.4.

The major benefit that would be allowed through the proposed lift is that of understanding. The lift will provide physical access to the first and second floor levels for those that are unable to traverse the steep and narrow staircases. Wheelchair access will be possible to this part of the Castle, including some way along the wall walks at second floor, which is currently unimaginable. The lift broadens the potential visitor type to the castle, and therefore enhances potential public understanding of what makes it special. Audience research undertaken during the lifetime of this project highlighted that the general public were not aware of Caernarfon Castle being a World Heritage Site; nor in many cases of the individual values and attributes that form the basis for that inscription. Through this project, Cadw are seeking to spread information about the Castle's unique historical and architectural special interest, and this can be done most effectively by actively supporting engagement with the building.

It is also possible to argue that the lift is an act of defiance. Caernarfon Castle was built to suppress the Welsh. For many, it is a symbol of oppression, an English fortification in a Welsh nation. The lift subverts the King's Gate and its role as a stronghold of subjugation. In this way, the proposed intervention could be seen to enhance the OUV of Welsh National Identity, by democratising its existence even further.

The installation of the lift is considered a major benefit to the overall understanding of the King's Gate, Caernarfon Castle, and the wider World Heritage Site.



Figure 30 Existing View Towards Tower 2

8.8 Stairs

Drawing Numbers: (05) series, (15) series, (24) series, (34) series.

8.8.1 Impact on Historic Fabric

8.8.1.1 Stair

The proposed staircase to replace the removal of the existing in Tower 2, and to introduce in Tower 1, are designed to sit against the existing walls to minimise their visual and space impact through appropriate positioning. The treads sit as close to the wall as they can for safety, but without directly abutting the wall to avoid unnecessary interaction between new and historic fabric. The timber frame that supports the stairs is anchored into the new floor plates, providing stability. There is minimum intervention in the historic fabric to install this new circulation, which will enhance the use of the individual towers.

8.8.1.2 Tower 3 Tiered Seating + Stair

As this is a moderate change, the design team undertook an options appraisal to establish the optimum location for this staircase for circulation, and to mitigate impacts on the historic fabric and views within the castle. This staircase interrupts the balustrade at the top deck of King's Gate at the point closest to where the wall walk joins the top deck of the Gate. It does this by creating a new platform which makes the top of the rubble consolidation accessible and brings the staircase down the rear wall of the tower. The lower staircase is situated down the right-hand side of tower three, at the edge of the proposed tiered seating.

This avoids creating unnecessary pinch-points at key circulation points on the top deck by creating an additional space in a corner that is likely to be less populated. Though the deck could be considered to obscure historic fabric, the impact is limited as it is not covering the whole area of consolidation; meaning it is still clear and legible, while at the same time serving the purpose of providing additional space.

The insertion of the platform and the descending stairs down the rear wall of Tower 3 will require some fabric intervention. However, the masonry is already lower than where the landing meets Tower 1, so the fabric impact is reduced.

The visual impact of this proposal could be considered to have a harmful impact; however, the scale of the change is moderate, and the proposal has the potential to be reversed. The new platform will be small enough as to not obscure views to or from the King's Gate.

The addition of the lower staircase will have no further harm on the historic fabric than the proposed tiered seating as it is a change to the form of the space rather than anything else. In this sense, the visual impact of the staircase will be wrapped up in the tiered seating.

8.8.1.3 Spiral Stair

It is proposed that the existing spiral stair in Tower 3 will be extended with a new staircase to allow access up to the new viewing deck at first floor level. There is an existing concrete newel post. This will be topped with a stainless-steel fixing plate with a shadow gap between the existing and the new. A new timber newel post of Accoya will be fixed into the existing concrete with stainless steel pins with capping. This newel post will support the curved metal handrail and new Accoya timber treads. The treads are formed to the shape of the existing perimeter wall and protruding stone corbels and will sit no further than 99mm from the existing wall, ensuring that there is no intervention in the historic fabric. At the top of the new stair, a new timber deck will be created in accordance with the principles for new floor plates referenced in 8.3.1.1 Floor Plates, with a curved glass balustrade. By limiting the new intervention to the installation of the newel post, elements can be easily removed for repair and replacement, without further disturbance of the historic fabric.

8.8.2 Impact on Scheduled Monument

Generally, the staircases proposed are minimum intervention and respond to the historic fabric, or recreate planned historic access routes originally intended for the Castle's design. They are designed to not obscure or alter elements of significance. The Tower 3 staircase is a major change as it provides access where people will approach the "Hall" from the original intended route for the first time. This staircase means that visitor experience will be enhanced through increased understanding of how the King's Gate would have operated, giving a sense of scale and importance that is lost when approaching from alternative routes.

8.8.3 Impact on OUV + Attributes

Vertical circulation staircases in Towers 1 and 2 as outlined above constitute a moderate change with a moderate beneficial impact, especially in Tower 2 where the proposals seek to reverse harm caused by a previous intervention through modernisation and repair. The staircases sit tightly against the interior tower walls, without direct contact to minimise direct interaction between historic and proposed fabric. They are supported on a timber structure that is clearly visible to visitors and staff, demonstrating that it has been inserted into the space. They are anchored into the floor plates at each level to provide support, and minimise intervention that would be required by any work to fix the structures back to the wall. There is a visual impact as a result of the installation of these staircases. However, the staircases are clearly legibile as modern interventions, fixed with minimal and reversible interaction with the historic fabric.

These circulation staircases facilitate better movement around the castle for staff and visitors, supporting it to better function as a visitor attraction to a broader range of people. This is a fundamentally beneficial change to the King's Gate as improved access can lead to a greater number of visitors, and a greater level of understanding of the heritage. The installation of these staircases do not cause direct harm to any of the attributes of OUV inscribed in the Castle's World Heritage listing, and no attribute will be changed or obscured by the staircases.

The new extension to the spiral staircase in Tower 3 could be interpreted as a completion of an incomplete architectural element as defined in Value 3 of the OUV. This is a moderate change with moderate impact. The post and treads have been designed to have a minimal and reversible impact on the historic fabric, and are also clearly intended to be a modern intervention due to the contrast in the historic stone treads and the modern timber. This visual separation will help visitors to understand that this is not attempting to recreate something that is lost, but to interpret how this space would have been, whilst also bringing this underused and under-visited space back into proper circulation within the King's Gate. This staircase, in conjunction with the creation of an enclosed second floor and tiered seating deck on Tower 3, envelops this tower back into the structure of the King's Gate, after having been isolated due to physical inaccessibility. These stairs are not considered to have any direct impacts on the attributes or OUV outlined in the listing, and the honesty of material and design in the proposal does not dilute the integrity or authenticity of the heritage.



Figure 31 Existing Staircase (Tower 1)

8.9 Balustrades

Drawing Numbers: (22) series, (34) series, (43) series, (72) series

8.9.1 Impact on Historic Fabric

There are 3 different types of balustrades proposed for implementation across the King's Gate. They are all designed and proposed for construction in line with the conservation philosophy of minimum intervention. Some of the new balustrades will replace existing ones that are no longer fit for purpose, especially with the intended increase of use at deck level. Others have been designed to respond to the new layout and uses of the space. All balustrades are either anchored into the floor plates to avoid intervention or sit on a Parex dry pack as a buffer between new and existing fabric. Where required, mechanical anchor fixings will be inserted in appropriately identified areas. The balustrades are glazed to minimise potential visual impacts from a variety of angles, and the glass is optiwhite to limit the additional impact of greener glazing.

8.9.2 Impact on Scheduled Monument

The decision was taken to incorporate a new style of balustrades, rather than copying the existing ones, to clearly identify these as a separate, distinct and contemporary piece of work. The glazing also seeks to reduce the visual impact of repeated downstands across key views, of which many more would be required to ensure safe access. The methodology proposed for the balustrade installation is intended to have a minimum and reversible impact on the fabric of the scheduled monument. In addition, the balustrades are not considered to obscure any significant elements of the historic fabric or archaeology.

8.9.2.1 Impact on OUV + Attributes

In order to ensure the most suitable option for the balustrades, the design team undertook extensive consultation with Cadw regarding its design. There were numerous previous iterations that explored a variety of formats and designs that would provide the required level of safe access whilst balancing the visual impacts. Previous iterations of the design consisted of solid metal with similar details to the opening brackets, ensuring visual continuity between elements from the same program of works. After a series of visualisations, it was concluded that this created too-solid a visual boundary and horizontal emphasis, perhaps in places drawing away from the significance of the historic fabric. The proposed glazed balustrade is intended to provide clear and unobstructed visual access from a variety of key view points, including towards the King's Gate from other towers. The timber leaning beam gives the balustrade clear definition and a suitable dwell point, and the optiwhite glass reduces the visual impacts of green opaque glass. The installation of the balustrade is a moderate change which has a moderate beneficial impact overall due to its function in facilitating greater access to deck level, expanding visitor interaction with the King's Gate and clearly demarcating the modern project within the wider context of the Castle.

8.10 Deck Features

Drawing Numbers: (22) series, (34) series, (43) series, (72) series

8.10.1 Impact on Historic Fabric

8.10.1.1 Tiered Seating + Benches

The benches on the top deck are attached by an integrated fixing point system below deck level. Timber joists span between the fixing points to provide a base for the timber bench. The bench itself has been designed to echo the shape of the tower underneath, to expose some existing stone masonry at the wall heads, and to provide visual continuity between the benches on top deck and the ticket desk at ground floor.

8.10.2 Window Seats

The window seats respond to the existing stone and are intended to provide a dwelling spot in some of the most significant places within the King's Gate. The timber seats are fixed by a stainless-steel cleat hanger fixed to the rear, then into mortar joints through 10mm stainless steel spacers. Each seat and its fixings are adapted to suit the individual conditions of the windows to reduce interventions required. The window seats do not require the removal or alteration of any historic fabric, and the profiles of the ledges they respond to will still be visible from the edge, which is the current view of the windows allowed at the second floor of the King's Gate currently due to the inability to access these windows.

8.10.2.1 Impact on Scheduled Monument

The deck features described are designed with the principal of minimum intervention, and with the intention of preserving and enhancing the significance of the Scheduled Monument. The features at top deck are intended to facilitate greater use and understanding of the King's Gate, especially through dwell time and relationship between the Tower and the town. Providing window seats and other seating will give visitors places to contemplate and learn more about the unique significance of the King's Gate and its role within the wider Caernarfon Castle.

8.10.2.2 Impact on OUV + Attributes

The deck features have been designed with the intention of preserving and enhancing the elements of original architectural design that make a significant contribution to its OUV, particularly architectural values embodied in values 1 and 2. This is proposed through providing greater access to those elements that still exist in situ and providing space to contemplate and learn at this level. The window seats especially provide a significant level of enhancement. The Savoyard architectural style, which is cited as an attribute of the OUV, is currently only experienced from a middle distance. The new window seating, which responds to existing ledges, provides space for visitors to experience these windows and their relationship to the town from a tactile distance. The angled towers are still visible with these proposed new interventions, and the seating is built to respond to the existing fabric with minimum possible intervention. The decking demonstrates the existing outline of the towers through an interpretative pattern, whilst providing a solid space to stand and experience. The existing lead roof of Tower 2 detracts from the shape of the existing tower as Tower 1 does not share this feature, and it does not necessarily read to visitors that this is a modern roof to facilitate staff use of this tower. The proposed decking is clearly a modern intervention with a moderate and will not appear to be a facsimile of a perceived original.

There is potential, through this improved access and interpretation sequence, especially at second floor level, to integrate some of the academic and inaccessible learning that constitutes the OUV of the WHS inscription into a daily visitor experience, providing a substantial benefit to the site overall. The space provided to learn and dwell will also facilitate new interpretation, including some of this documentary evidence that makes such a vast contribution to the World Heritage Site.

It is anticipated that the proposed intervention at second floor level, namely the balustrades, seating and window seats, will encourage visitor dwell time, and attract a broader range of visitors with different access needs. Now this level, which provides some of the best views within and without the castle, is restricted. The number of people able to access this level is limited. The space is not hospitable and doesn't provide access to the principal curtain wall of the King's Gate, which arguably is one of the most important views from the tower. To fully understand the significance of the King's Gate's military imposition over the town of Caernarfon, and its original intention, access must be facilitated to the windows that overlook it. While views of the walled town are available from other towers on the north side of the castle, as the King's Gate was intended to be the dominant gateway that separated the Welsh from the English inside, it has a more intrinsic role in telling this story. Both the relationship between the castle and the coast, but also of Welsh identity, as you can experience this structure from both sides of the wall, and fully comprehend its purpose. For these reasons, the proposed interventions at deck level are considered to be a moderate change which have an overall moderate beneficial impact on the King's Gate, Caernarfon Castle and the World Heritage Site.





Figure 32 Examples of Existing Balustrades at Second Floor

8.11 Key Views Within the King's Gate Project Area

The following key views have been identified within the King's Gate for analysis. They represent inward-facing views from the second floor of the King's Gate and adjacent wall walks. It also covers views from areas that are currently inaccessible, and will therefore be created as a result of the scheme. It is intended to provide an illustrated and discursive analysis of these views and the impacts of the proposed scheme within the context of the King's Gate alone.

Views from elsewhere within the Castle, from the Town, and from the wider landscape are covered in 9.0 Caernarfon Assets Impact Assessment and 10.0 Impact on Wider Heritage Setting & World Heritage Property Key Views.

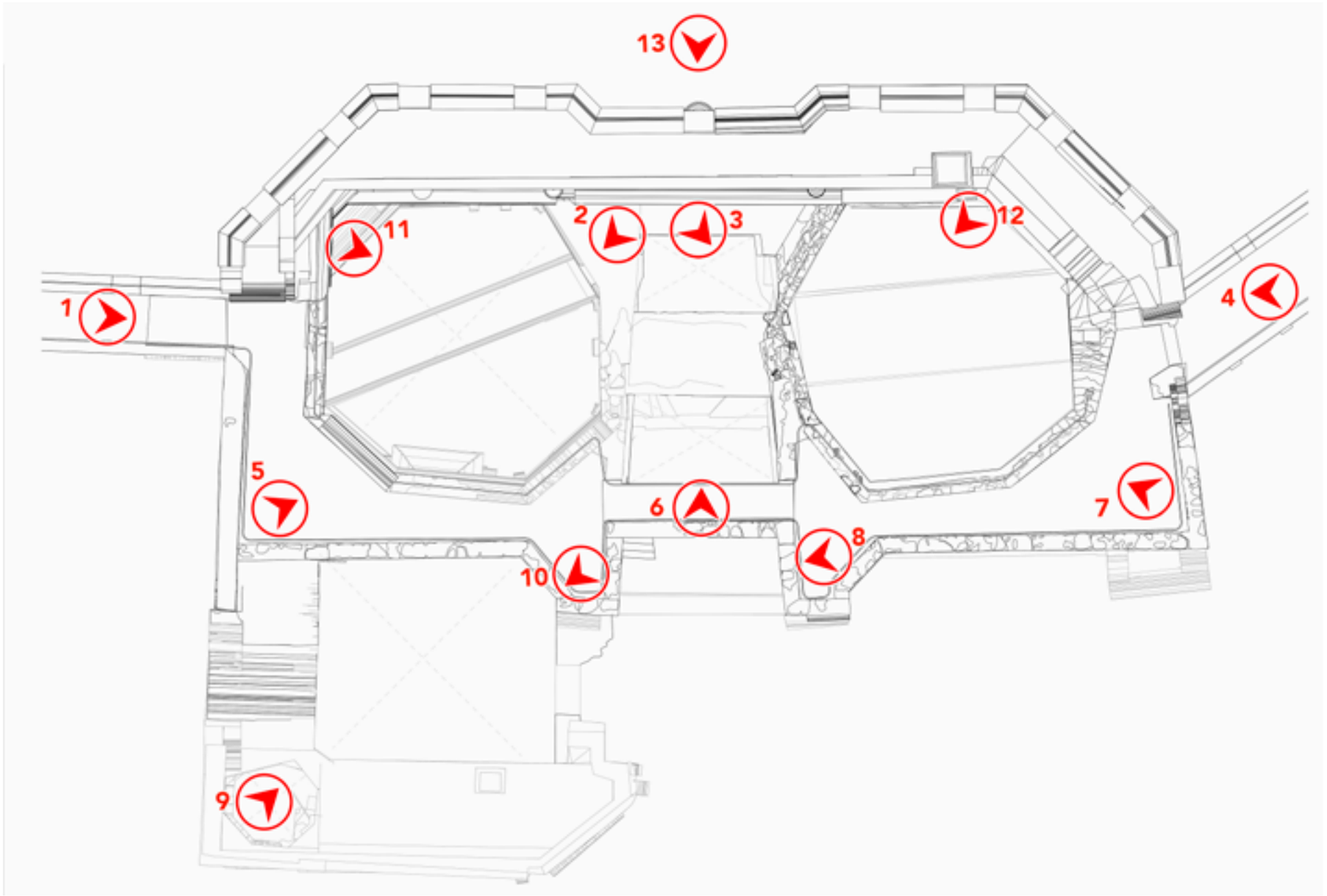


Figure 33 Map depicting locations of Key Views for potential impact within the confines of the King's Gate as a defined place in its own right.

8.11.1 View 1: From Well Tower Wall Walk

There is a distinct juxtaposition between the existing historic fabric and the new deck from this approach. This helps to signify what is part of the new scheme of works, and what is original. The structure of the lift is also more visible from this angle due to the way the existing wall sits, and the location of the lift within Tower 1. This is a moderate change from the current view as there are presently no objects in a viewer's path, so the lift is a clear addition. This is a moderate impact, with the moderate benefit of identifying this area as a place that is acceptable and welcoming of visitors. The glazed balustrade continues to provide views through to Queen's Gate, with the timber rail providing a visual cue that visitors are able to, and encouraged, to access this area.

The impact on this view is major beneficial.

8.11.2 View 4: From Granary Tower Wall Walk

When approaching the new top deck of the King's Gate, the principal visual impact is the change in balustrade. The lift structure does not appear to be visible from this particular angle, and views to the Lower Ward and Queen's Tower are maintained. The material palette is also likely to be visible in the contract between the old and the new.

The impact on this view is major beneficial as the quality of the balustrade is improved, it continues to provide a permeable view through, and indicates to visitors that this is a place that can be explored.

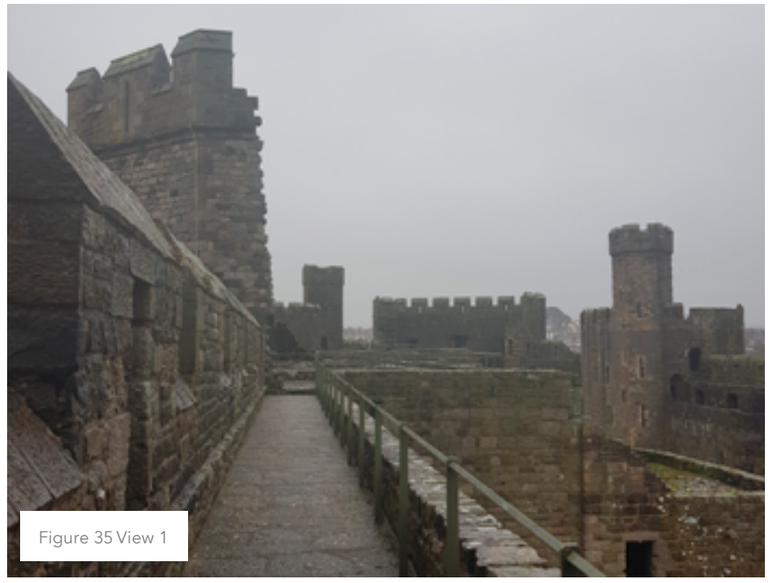


Figure 35 View 1





Figure 34 View 4



8.11.3 View 2: From Wall Walk at the edge of Tower 1

View 2 is the most clear representation of the new lift structure at this level. The new interventions are clearly visible through material choice, but they are deferential to the existing fabric around it. The glazing of the lift shaft is an important choice in ensuring that the inclusion of the lift has the minimum possible visual impact; allowing views through the structure. The existing shape of the tower is clearly legible in the articulation of the deck floor, and the chapel voids are welcoming observers.

It is worth noting that, though the lift structure sits prominently in the centre of this frame, this view is not currently accessible. Presently, no members of the public, or staff, are allowed access to this area so close to the existing wall at second floor level. This view is one that is not available at the moment. The lift also means that this view will be open to a broader group of people than are able to make it to this level at the moment.

Where the lift does obstruct potential views to the Queen's Tower and Eagle Tower from this angle, views of these towers are still available from other areas of the viewing platforms. The lift shaft will be programmed to sit at the ground floor level, also, to limit the amount of time there is an additional physical barrier in this view.

Due to the opening up of new vantage points, the impact on this view is major beneficial.

8.11.4 View 3: From Wall Walk at the edge of Tower 1

Similarly to View 2, this view is a previously unseen view. The chapel voids are clearly articulated and encourage visitors to peer through them, without being boxed off with additional balustrading or fencing. The new seating around the shape of Tower 2 is clearly visible as a modern intervention that sits on top of historic fabric, visible in the bottom left of the frame.

The glazed balustrade provides a line of sight through to the castle beyond, and the timber rail provides a leaning point for visitors. This angle also provides physical access to the curtain wall and understanding of the details here that are currently inaccessible, such as the corbel, arrow loops and murder hole.

It has not been possible to provide photographs from this view currently as the area is not safely accessible.

Due to the opening up of new vantage points, the impact on this view is major beneficial.

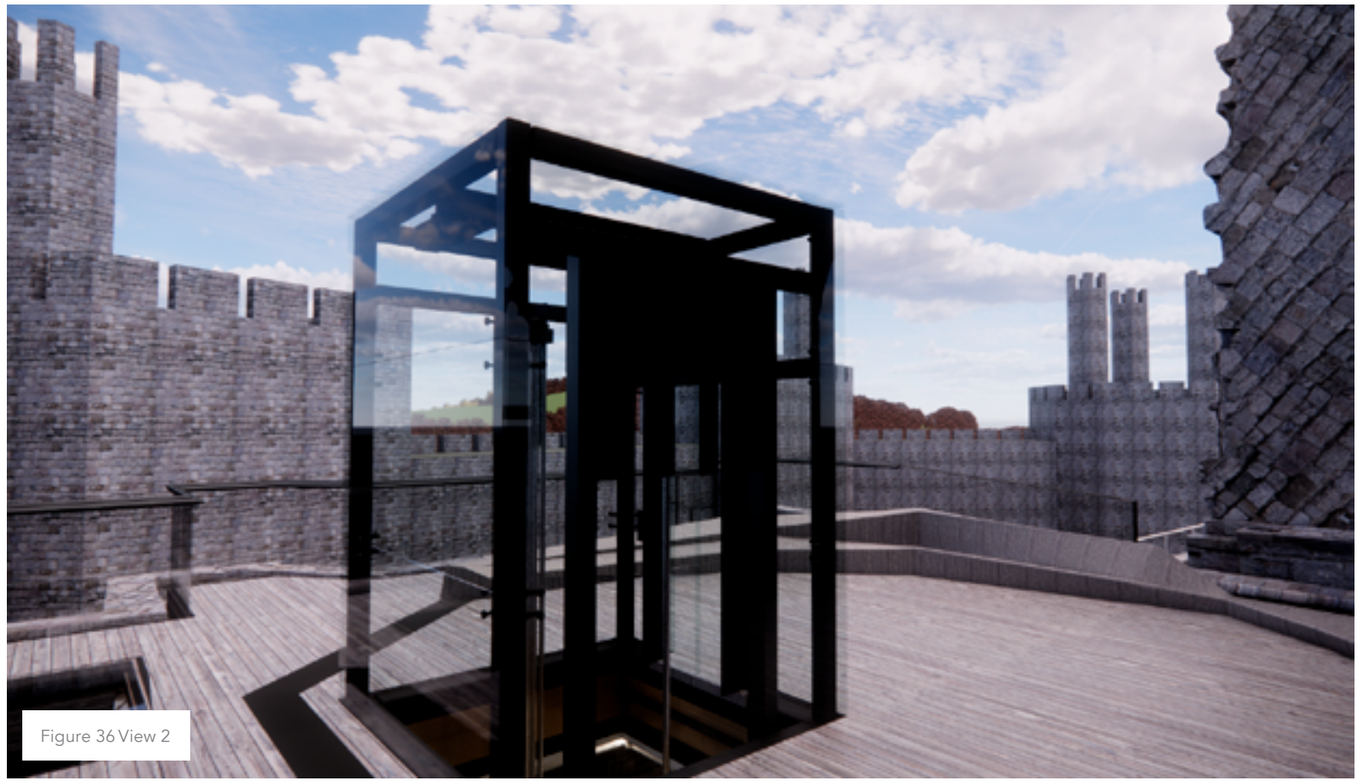


Figure 36 View 2



Figure 37 View 3

8.11.5 View 5: From the south of the curtain wall - Tower 1

As this view is situated closer to Tower 1 where the main intervention is proposed, the view is more greatly impacted by the structure of the lift shaft at this level. The lift structure obscures some features on the curtain wall from this angle. However, the lift shaft is glazed and the carriage will sit at a lower level to minimise the amount of time this area will be opaque. Additionally, while the views towards this wall are currently visually unrestricted, there is no physical access to them. The new deck is a major change, but will provide visitors the opportunity to experience the main wall of the King's Gate up close. The other major change in this area is the sealing of this Tower, which visitors can currently see in its entirety. The impact here is the loss of that complete view of the tower's construction. However, the uses of the rooms internally will allow people greater access to a space that is currently unobtainable, creating a major beneficial impact.

8.11.6 View 6: From the centre of the wall walk towards the curtain wall

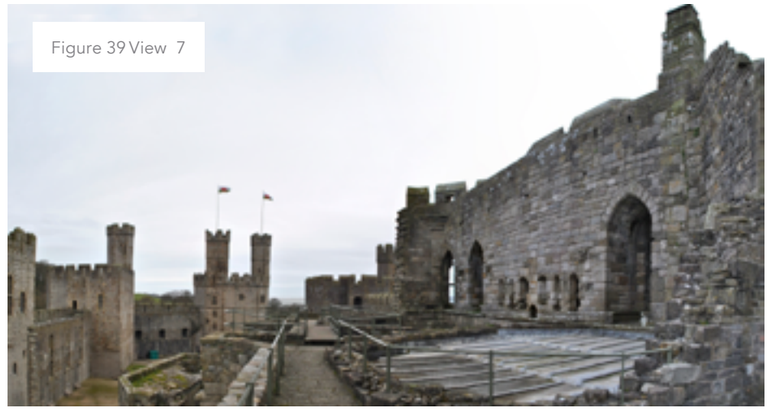
The proposed view towards the curtain wall is partially obscured by the structure of the lift through Tower 1. The structure and glazing in this area has been designed to the minimum necessary, with optiwhite glass to remove some green glare, so that visitors are able to see through the lift shaft through to the curtain wall. It is worth noting that, currently, this is the only way a visitor can view the wall as it is not accessible. Therefore, whilst there is some visual obstruction from this angle, visitors will be encouraged to circulate around the lift and view this area more closely, resulting in a major beneficial impact due to the expansion of visitor experience and understanding.

8.11.7 View 7: From the south of the curtain wall - Tower 2

From this angle, the closest obstruction to the viewer is the rear of the seating that has been proposed for the outline of Tower 2. Though it is solid in comparison to the existing railings, it provides access to the top of the tower that is currently unavailable due to the modern roof intervention. The lift in the rear ground of this view provides some visibility to the area behind, which we currently see, due to the glazing. The horizontal line of the timber head to the balustrade also provides a visual cue that visitors can gain access to the area behind the lift and it does not hamper circulation. Again, visitors will be encouraged to perambulate the top deck to understand its elements more closely. Additionally, the removal of the interior balustrades around the tops of the towers currently will open up the view across the King's Gate, creating a clearer and more cohesive space, overall resulting in a major beneficial impact.


Figure 40 View 5


Figure 38 View 6


Figure 39 View 7







8.11.8 View 8: View from Tower 2 wall walk towards the Well Tower

From this angle, the largest changes are the installation of the decking, the use of Tower 3, and the replacement of the balustrade. Though structurally the existing balustrades are less dense, the glazing of the new proposed balustrade provides greater physical protection to deal with increased visitor numbers, and views through it from all angles, including people at a lower level. The single timber topboard on the glazed balustrade reduces the number of downstands that can obscure views, instead presenting something more interrupted. There is clear visual indication that it is possible to move across all areas of the King's Gate. It is a moderate change with a moderate beneficial impact due to the proposed improvements in visitor experience and understanding.

8.11.9 View 9: Towards the top deck from the spiral staircase of Tower 3

The view from the spiral staircase towards the top deck of the King's Gate does not currently exist. This position provides new ways to view the wider castle from a lower level. The proposed new fabric is clearly identifiable, and the glazed balustrade provides visual continuity to the features on the top deck level. The structure of the lift shaft is visible at deck level. However, from this unusual angle it does not obscure any key features that would restrict understanding. It is clear from this view that the whole King's Gate is open for visitors to explore. Opening up this new view is a moderate change with a moderate beneficial impact.

8.11.10 View 10: View from Tower 1 wall walk down to Tower 3

Tower 3 at first floor level is currently open, so the closing of this area has a major impact on this view; however, this space will remain accessible from the interior. Providing a new viewing platform at this level will change Tower 3's relationship with the rest of the King's Gate and the wider castle, as it is not completely integrated into the visitor experience. Visitors ascending or descending the spiral staircase will also have clear understanding of where the new fabric meets the old, creating a major beneficial impact.



Figure 41 View 8



Figure 43 View 10

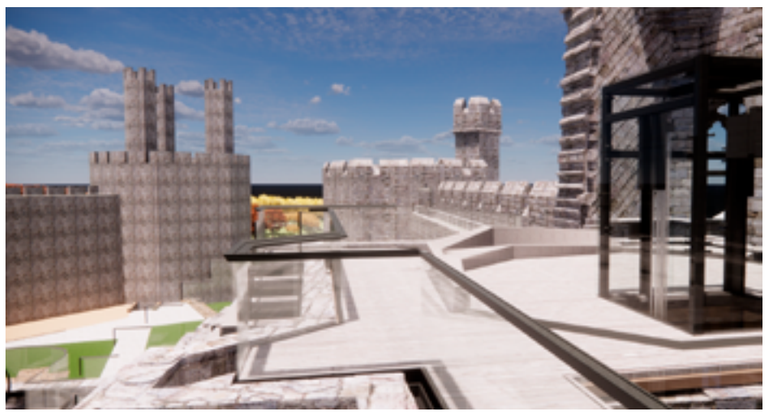
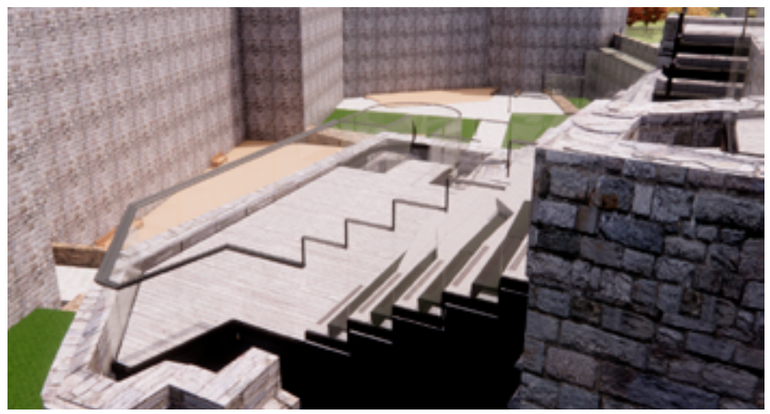




Figure 42 View 9



8.11.11 View 11: View from Tower 1 towards Black Tower

The lift's visual impact at this level will be principal for most views that are taken near to the structure. In comparison to the existing view, it is worth noting that the rationalisation of the balustrade to a single glazed line removes some of the visual intrusion of the varying levels of existing balustrade that spreads across the King's Gate. The top of the tower is still recognisable in the detailing of the top deck. The lift shaft is glazed to retain views through to the Upper Ward, and the lift carriage will not rest at this level in order to maintain maximum visibility through the shaft. Views to the upper ward that might be obscured by the installation of the lift can be obtained by circumventing the shaft and observing from the viewing platform on the other side. The change in the view is moderate due to the installation of new elements; however, the impact is moderate beneficial due to the potential expansion of visitor experience and understanding at this level.

8.11.12 View 12: View from Tower 2 towards Queen's Tower

In views from Tower 2 towards the Queen's Tower, the lift obscures the current clear view towards the Eagle Tower, which is a moderate change due to the insertion of a new element. However, due to the glazing of the shaft, it is intended that the obstruction is reduced and mitigated through the opening up of access across the top deck. The removal of the balustrades separating the walk from the tower roofs will also provide a clearer line of sight towards the Eagle Tower as the only balustrade will be glazed on the south wall. It is proposed that the greater variety of access at this level will provide alternative and more accessible views towards this ward of the Castle, resulting in a moderate beneficial impact.



Figure 44 View 11

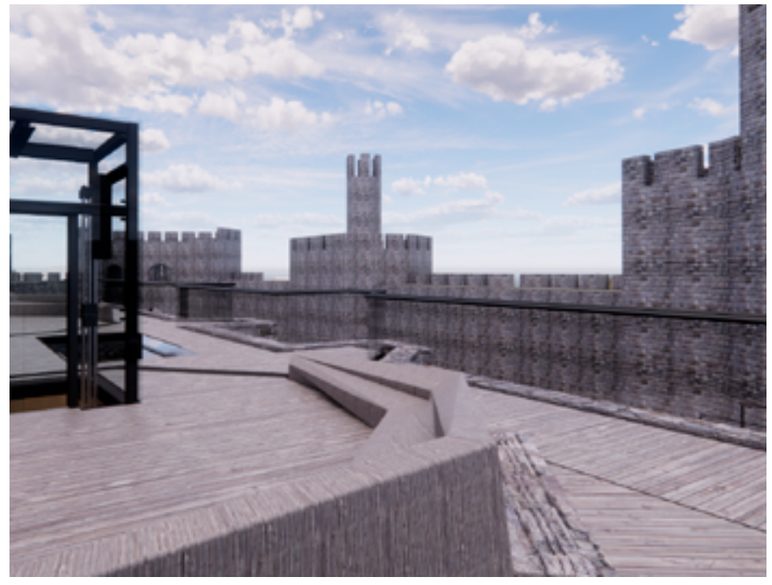




Figure 45 View 12



8.11.12.1 View 13: View of King's Gate from Approach

Assessment at this moment demonstrates that the proposed new development is not visible through the imposing facade of the King's Gate. This is largely due to the positioning of the lift and the specification of the materials. Where new glazing is to be installed, this will be visible, but will not obscure the key views through the windows to the sky. Some elements of interpretation will likely be visible at a later date. The change to this view is therefore negligible, having negligible beneficial impacts.



Figure 46 View 13



8.12 Key Views Within Caernarfon Castle

These views towards the King's Gate have been identified in order to capture visual impacts of the proposal on the other significant aspects of the building. This recognises that each tower has its own significance, and its own visual relationship to the King's Gate.

1. View 1: From the Eagle Tower (Upper)
2. View 2: From the Eagle Tower (Lower)
3. View 3: From Queen's Tower (Upper)
4. View 4: From Queen's Tower (Lower)
5. View 5: From Chamberlain Tower (Upper)
6. View 6: From Chamberlain Tower (Lower)
7. View 7: From Black Tower (Upper)
8. View 8: From Black Tower (Lower)
9. View 9: From Queen's Gate
10. View 10: From North-East Tower (Upper)
11. View 11: From North-East Tower (Lower)
12. View 12: From Granary Tower (Upper)
13. View 13: From Granary Tower (Lower)
14. View 14: From Well Tower (Upper)
15. View 15: From Well Tower (Lower)

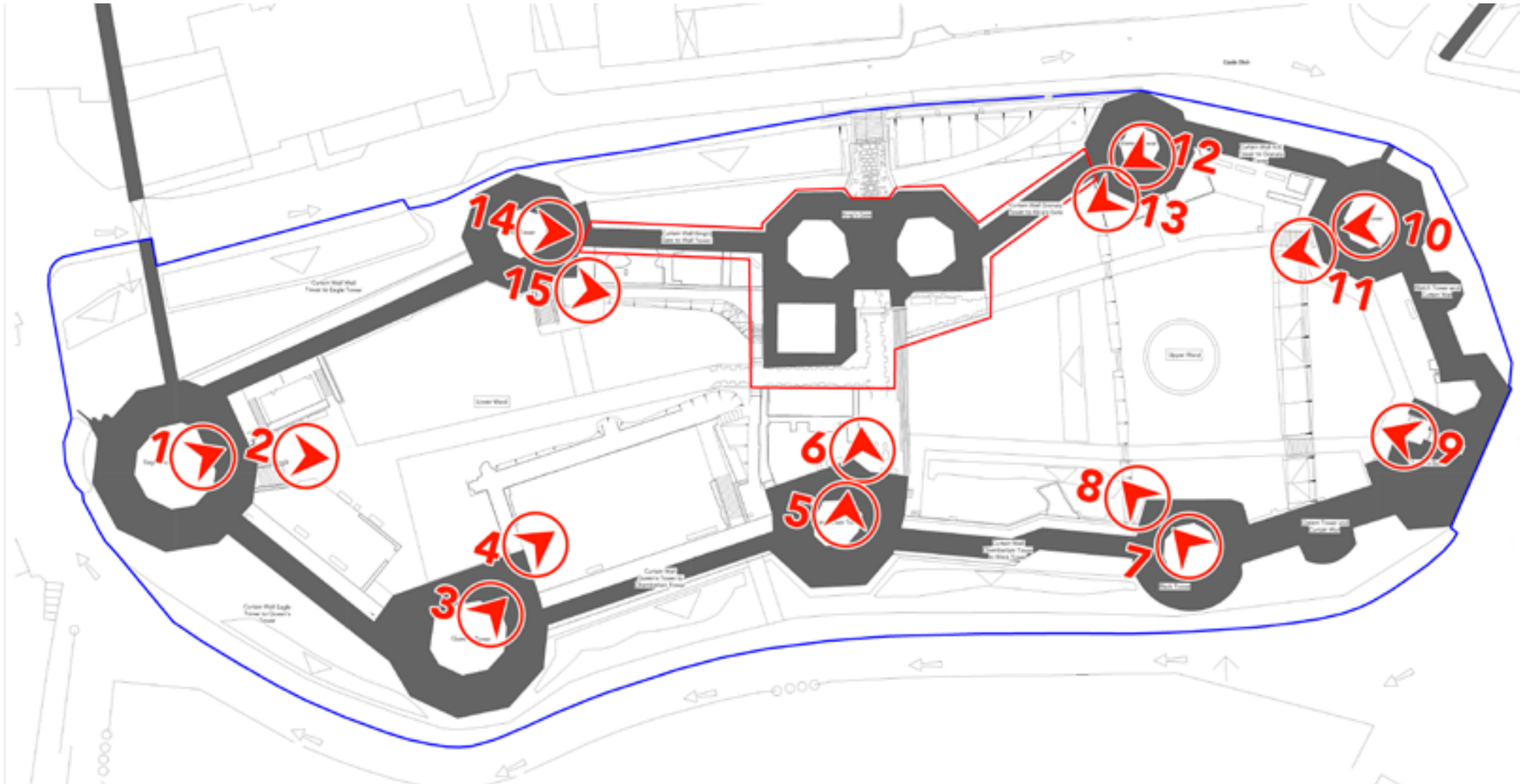


Figure 47 Map depicting locations of Key Views for potential impact within the the walls of Caernarfon Castle, taking the significance of the wider asset into consideration.

8.12.1 View 1: From the Eagle Tower (Upper) & View 2: From the Eagle Tower (Lower)

The Eagle Tower is arguably the most significant tower within Caernarfon Castle, and survives relatively in tact. The Tower is the furthest from the King's Gate, but has the most complete access throughout, so the views towards the proposed scheme are more accessible throughout.

From the upper level, the view is impacted by the introduction of new materials on first and second floor. The glazing specification of the lift and the balustrade is intended to minimise the visual impact of these significant pieces of furniture at this level, both in terms of colour and potential glare. The lift and the balustrade also have clear simple lines which help to not confuse the view.

From the lower level, the majority of the proposed scheme is obscured by the oblique angle, with the exception perhaps of the very top of the lift and the balustrade.

From View 1 and 2, the scale of change of the proposed development is moderate. Though there is a clear change to the present view, the proposed scheme will help to open up physical and intellectual access to the King's Gate, and the broader castle by extension, which balances visual implications, for an overall moderate beneficial impact from this angle. The clearly modern interventions also serve as a beacon to encourage further exploration within the Castle.



Figure 48 View 1





Figure 49 View 2



8.12.2 View 3: From the Queen's Tower (Upper) & View 4: From the Queen's Tower (Lower)

The Queen's Tower view varies from the Eagle Tower principally in its view of Tower 3.

From the upper level, the proposed first floor of Tower 3 is clearly visible. The staircase and tiered seating are demonstrably modern, and the texture and material palette respond well to their surroundings. This new enclosed view means that the interior of the tower is no longer visible from high level; however, this is mitigated by being able to directly access this space internally.

From the lower level, the majority of the proposed works are obscured by the oblique angle, with the exception of the balustrade and the top of the lift. The glazed balustrading around Tower 3 ensures visitors are able to see through to the structures behind, including the curtain wall of the King's Gate.

From View 3 and 4, the scale of change of the proposed development is moderate. There is clearly a modern addition, but from this distance it does not obscure anything of value or interest .

The proposed works will support greater engagement with the castle, which balances visual implications overall for a moderate beneficial impact.



Figure 50 View 3



Figure 51 View 4



8.12.3 Views 5: From the Chamberlain Tower (Upper) & Views 6: From the Chamberlain Tower (Lower)

The Chamberlain Tower has the clearest view of the King's Gate and the most comprehensive view of the proposed works.

From the upper level, the existing view of the King's Gate is greatly changed. Principal impacts from this angle include the closure of the tower voids, the installation of the lift, and the balustrading. Tower 2 has previously been closed off, which means that the replacement of the roof level will have little tangible impact on the interior of the space.

Presently, because the roof cannot be walked on safely, no one can access the significant curtain wall of the gatehouse, which contains the highest density of interesting architectural elements. The creation of the usable deck space will facilitate access to these elements. The seated elements will also reflect the shape of the tower void, to ensure the towers below are readable if not completely visible.

From this view, the new relationship between Tower 3 and the second floor of the King's Gate is noticeable, and provides a clearer view of how this space may have originally been operated, with the approach to the main "Hall" at the top.

From the lower level, the view through the entrance passage is clearer, with the visitor desk sat to one side. There is potential for the glazing of the existing ticket area to be replaced with optiwhite switchable smart glass. This will help to mitigate the green colour of the glazing, and control the thermal environment in this space. The glazed balustrade is the principal visible intervention from this angle, which provides views through to the King's Gate.

Due to the proximity and the angles of views towards the King's Gate from the Chamberlain Tower, the scale of change is major, resulting in a major impact. Though the proposed scheme is clearly a significant change from the building's current state, it is not considered that the change in the view alters or obscures any attributes of OUV that are currently visible, or that would not be visible from closer engagement within the King's Gate itself. The visual impression of the lift and the deck clearly demonstrates that the King's Gate is accessible and open for exploration, and the physical improvements to the space and the services it provides are considered to outweigh the change in the vista, resulting in a major beneficial impact.



Figure 52 View 5





Figure 53 View 6



8.12.4 View 7: From the Black Tower (Upper) & View 8: From the Black Tower (Lower)

From the upper level, the intervention to the first floor of Tower 3 is clearer. This highlights that the work is a modern intervention, but the existing fabric is still clearly visible. The new lift structure partially obscures the direct view to the tracery window from this angle. The proposed new works do not obscure or harm any attributes of OUV within the King's Gate that are accessible from this area, and visually indicates that the King's Gate is open for further exploration.

From the lower level, the principal impact is the installation of the glazed balustrade, which still provides views to the back of the King's Gate, as the current system does.

The proposed works are a moderate change with a moderate benefit.



Figure 54 View 7



Figure 55 View 8



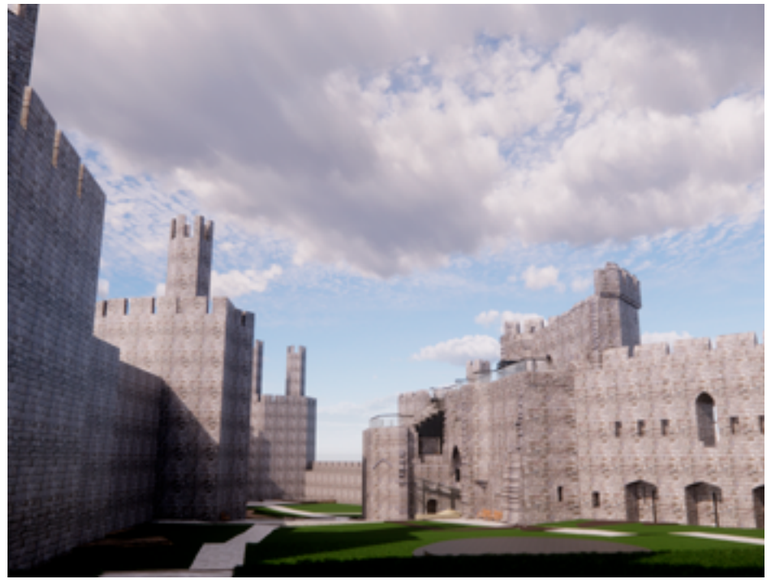
8.12.5 View 9: From the Queen's Gate

The view from the Queen's Gate is an oblique angle which principally focuses on the glazed balustrade. There is little difference in the available visual information between the existing and proposed.

The proposed works are a moderate change with a moderate benefit.



Figure 56 View 9



8.12.6 View 10: From the North-East Tower & View 11: From the North-East Tower (Lower)

Due to the angle of the relationship between the North-East Tower and the King's Gate, from the upper level there is a clear view along the whole proposed top deck. The new scheme partially obscures the view towards the tower behind due to the lift structure. However, the new decking and seating element around Tower 2 maintains a similar visual relationship between the existing and proposed.

From the lower level, the new first floor wall at Tower 3 is visible, but clearly a modern intervention. The principal element of obscured fabric is the interior of this space which is mitigated through internal access. The proposed works are therefore a moderate change, though - through mitigation and expansion of access to the castle - result in a moderate benefit.



Figure 57 View 10





Figure 58 View 11



8.12.7 View 12: From the Granary Tower (Upper) & View 13: From the Granary Tower (Lower)

From the upper level, there is a clear line of sight along the wall walk to the top deck of the King's Gate. The lift, however, is obscured by the curtain wall.

From the lower level, there is little visual influence of the proposed new scheme, though the handrail of the balustrade is clearly visible. This has the potential to encourage visitors to explore this area.

From View 12, the proposed works appear as a minor change as the main demonstrable difference is the change in balustrade, resulting in a minor benefit due to mitigation and expansion of access.

From View 13, the proposed works appear as a moderate change due to the replacement balustrade and new wall structure at the edge of Tower 3. Through mitigation and expansion of access to the King's Gate and wider castle, these changes result in a moderate benefit.

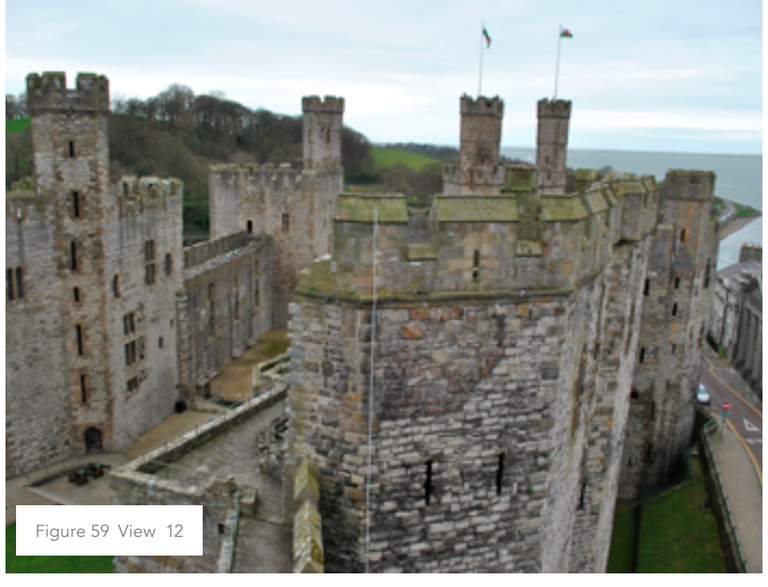


Figure 59 View 12



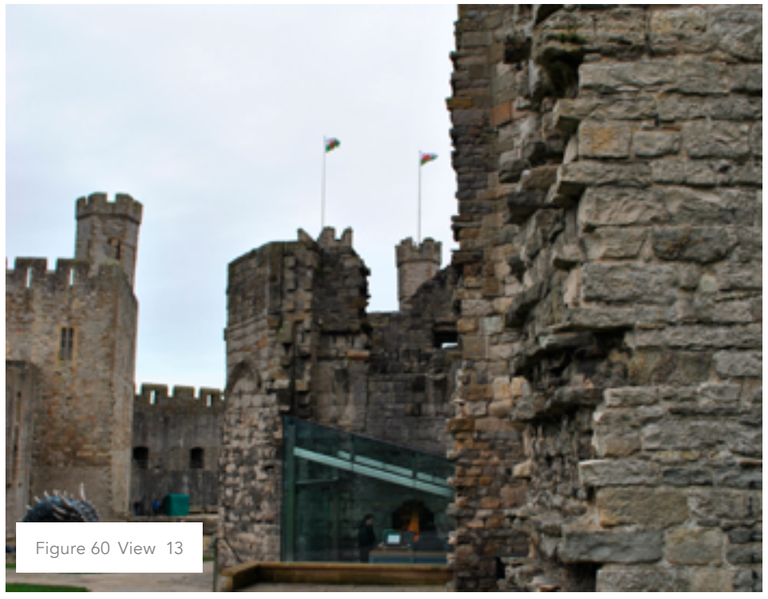


Figure 60 View 13



8.12.8 View 14: From the Well Tower (Upper) & View 15: From the Well Tower (Lower)

From the lower level, the glazed balustrade is the principal visual impact. This is mitigated as the view through the balustrade is preserved, and the top rail of the proposed design echoes the existing balustrade. From the upper level, the focus is also on the balustrade. Where the balustrade becomes glazed at the high level, again the impact is mitigation by the transparency of the glazing. The lift's frame is visible from this approach, though as the shaft is glazed and the carriage will be programmed to sit at a lower level, there is still a visual connection to the other side of the King's Gate, as there is at present. The view also invites visitors to access and explore Tower 3, which is currently impossible.

From View 14, the proposed works appear as a moderate change due to the replacement balustrade and view of the lift shaft structure when looking across the top of the King's Gate. Though this is a change in the current view, it is considered moderate beneficial due to the expansion of access and understanding within the King's Gate, and the wider site by extension.

From View 15, the proposed works appear as a minor change as the main demonstrable difference is the change in balustrade, resulting in a minor benefit due to mitigation and expansion of access.



Figure 61 View 14





Figure 62 View 15



9.0

Caernarfon Assets Impact Analysis

9.0 Caernarfon Assets Impact Assessment

Analysis of the key views within Caernarfon Town demonstrates that there is no direct or visual impact on any asset within the Town, or the Town itself as a heritage asset and component part of the WHS. The cumulative visual impact of the proposal on Caernarfon Town is neutral.

9.1 Caernarfon Town

The Caernarfon Town walls themselves form part of the WHS, and the Town as a whole is a designated Conservation Area in its own right. This helps to manage the essential setting of the WHS.

It is understood that the significance of Caernarfon Town is in part due to the collective significance of the individual assets contained with the boundary. Cadw have identified a list of heritage assets within the town and the potential impact of the development on those assets is summarised in 16.1 Inventory of Assets.

In order to assess the potential impact of the scheme on Caernarfon Town, we have established some significant views from key vantage points around the Town, as identified in Figure 63.

1. View towards King's Gate from Church Street
2. View towards King's Gate from Market Street
3. View towards King's Gate from Stryd Pedwar a Chewech
4. View towards King's Gate from Shirehall Street
5. View towards King's Gate from Castle Street
6. View towards King's Gate from Palace Street
7. View towards King's Gate from Hole in the Wall Street
8. View towards King's Gate from Hole in the Wall Street
9. View towards King's Gate from Hole in the Wall Street & Castle Ditch
10. View towards King's Gate from Palace Street and Castle Ditch
11. View towards King's Gate from Castle Street and Castle Ditch
12. View towards King's Gate from Shirehall Street and Castle Ditch

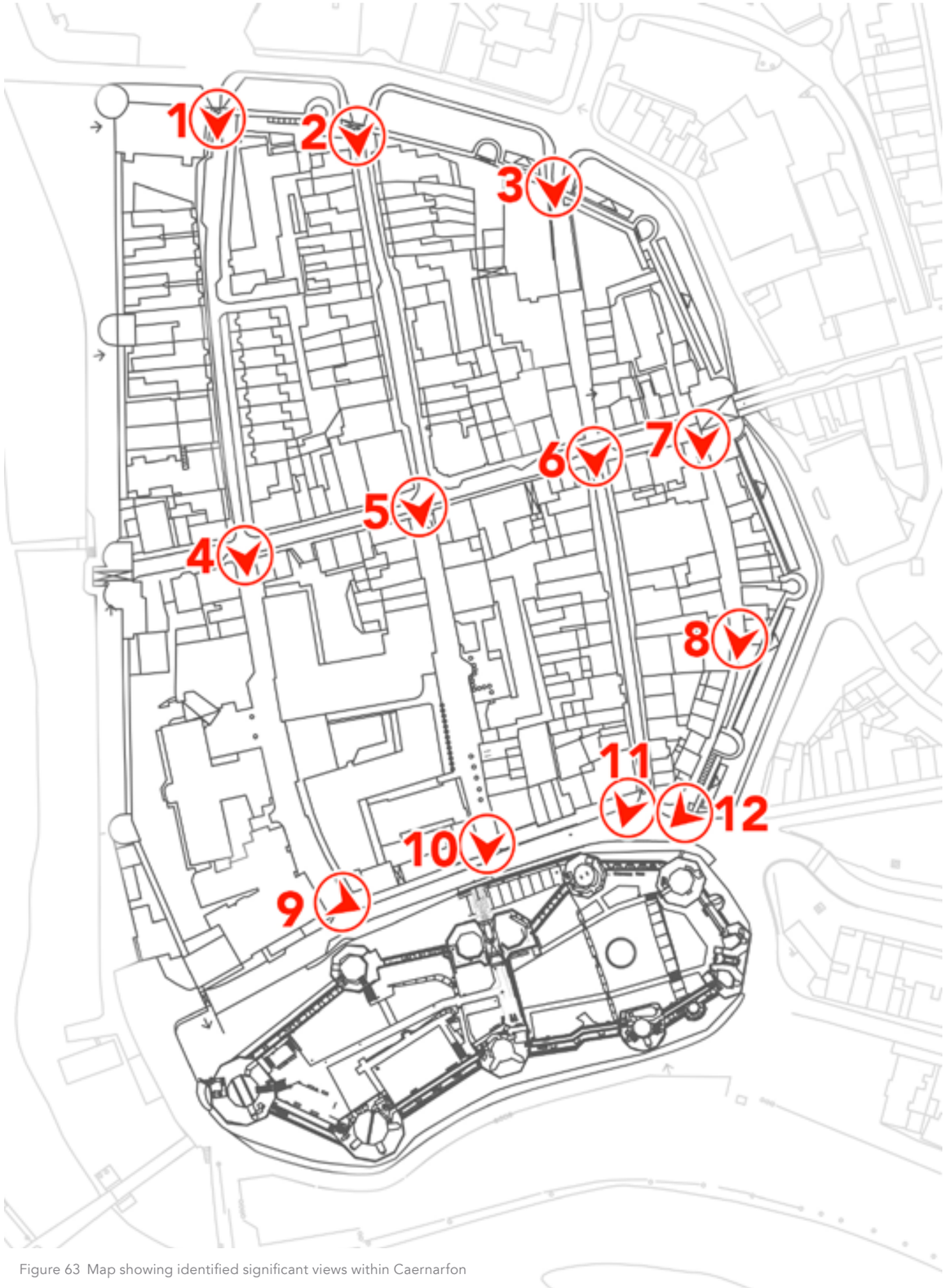


Figure 63 Map showing identified significant views within Caernarfon

9.1.1 View 1: Towards King's Gate from Church Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.2 View 2: Towards King's Gate from Market Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.3 View 3: Towards King's Gate from Stryd Pedwar a Chewech

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.



Figure 64 View 1



Figure 65 View 2



Figure 66 View 3







9.1.4 View 4: Towards King's Gate from Shirehall Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.5 View 5: Towards King's Gate from Castle Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is largely not visible. The proposals inside the walls of the castle cannot be seen. Where the glazing is proposed for the openings, this will be the optiwhite glass to reduce the green visibility of glass. Additionally, glazing will be set back from the outer edge by approximately 500mm, making the glass difficult to see from outside. There is therefore no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.6 View 6: Towards King's Gate from Palace Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.



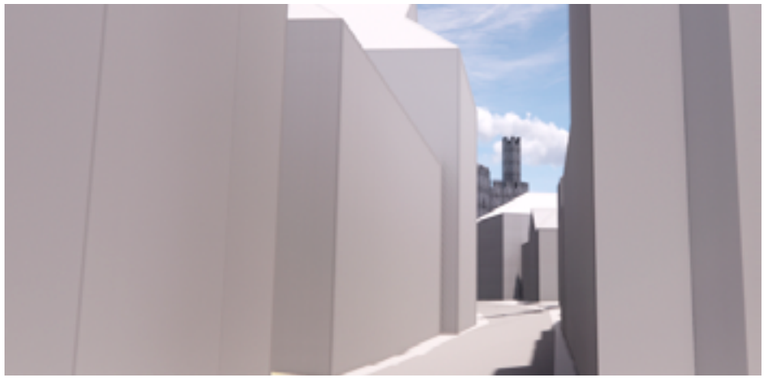
Figure 67 View 4



Figure 68 View 5



Figure 69 View 6







9.1.7 View 7: Towards King's Gate from Hole in the Wall Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.8 View 8: Towards King's Gate from Hole in the Wall Street

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.9 View 9: Towards King's Gate from Hole in the Wall Street & Castle Ditch

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible, and therefore has no direct impact on the significance of the Caernarfon Walled Town Conservation Area.



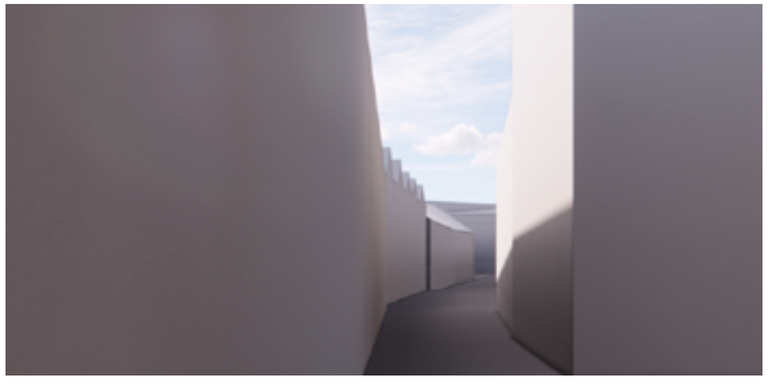
Figure 70 View 7



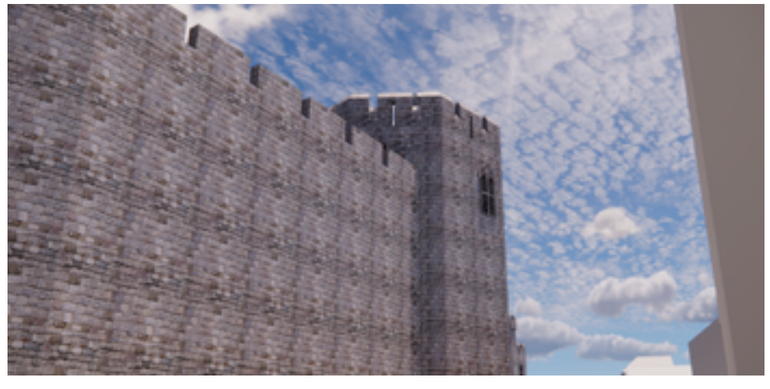
Figure 71 View 8



Figure 72 View 9







9.1.10 View 10: Towards King's Gate from Palace Street and Castle Ditch

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible. The proposals inside the walls of the castle cannot be seen. Where the glazing is proposed for the openings, this will be the optiwhite glass to reduce the green visibility of glass. Additionally, glazing will be set back from the outer edge by approximately 500mm, making the glass difficult to see from outside. Therefore, there is no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.11 View 11: Towards King's Gate from Castle Street and Castle Ditch

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible. The proposals inside the walls of the castle cannot be seen. Where the glazing is proposed for the openings, this will be the optiwhite glass to reduce the green visibility of glass. Additionally, glazing will be set back from the outer edge by approximately 500mm, making the glass difficult to see from outside. Therefore, there is no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.12 View 12: Towards King's Gate from Shirehall Street and Castle Ditch

From this view, the proposed new scheme at the King's Gate at Caernarfon Castle is not visible. The proposals inside the walls of the castle cannot be seen. Where the glazing is proposed for the openings, this will be the optiwhite glass to reduce the green visibility of glass. Additionally, glazing will be set back from the outer edge by approximately 500mm, making the glass difficult to see from outside. Therefore, there is no direct impact on the significance of the Caernarfon Walled Town Conservation Area.

9.1.13 Conclusion

In conclusion, the impact of the proposed scheme on the wider setting of Caernarfon Town, and on key views from and into the World Heritage property, is neutral.



Figure 73 View 10



Figure 74 View 11



Figure 75 View 12







10.0

Impact on Wider Heritage Setting & World Heritage Property Key Views

10.0 Impact on Wider Heritage Setting & World Heritage Property Key Views

Detailed analysis of the proposed development at the King's Gate, Caernarfon Castle, demonstrates that it has no impact on the wider WHS. The proposals do not obscure any OUV that is specific to Caernarfon Castle, nor does it infringe upon the unique significance of the other sites within the description or the WHS as a whole. A full summary of the proposal's impact on World Heritage listing is included in 14.1 Analysis of Potential Risk to World Heritage Status and 14.2 Statement of Heritage Benefits.

10.1 Essential Setting

There is no buffer zone for Caernarfon Castle defined within the King Edward in Gwynedd World Heritage Site inscription. The Management Plan identifies that other methods of protection are generally used to protect the setting of the Castle, including the Conservation Area and the use of "essential setting." The essential setting is defined by the Management Plan, and lies outside the WHS boundary. It is intended to protect from changes that may obscure or damage specific features or important views.

The map demonstrating the essential setting is included here in Figure 76 for reference.

10.1.1 Impacts

The essential setting, including St. Helen's Road, Slate Quay, Welsh Highland Railway Station, Victoria Dock, and views up and down the Seoint, is not affected by the proposed development at King's Gate. This is due to the fact that the development is not visible from these areas.

The potential impacts on the Caernarfon Conservation Area are covered separately in order to capture the nuance of the Conservation Area's separate designation outside of the WHS Management Plan. The significant views from the castle and town walls, and into the castle and town walls are also dealt with separately.

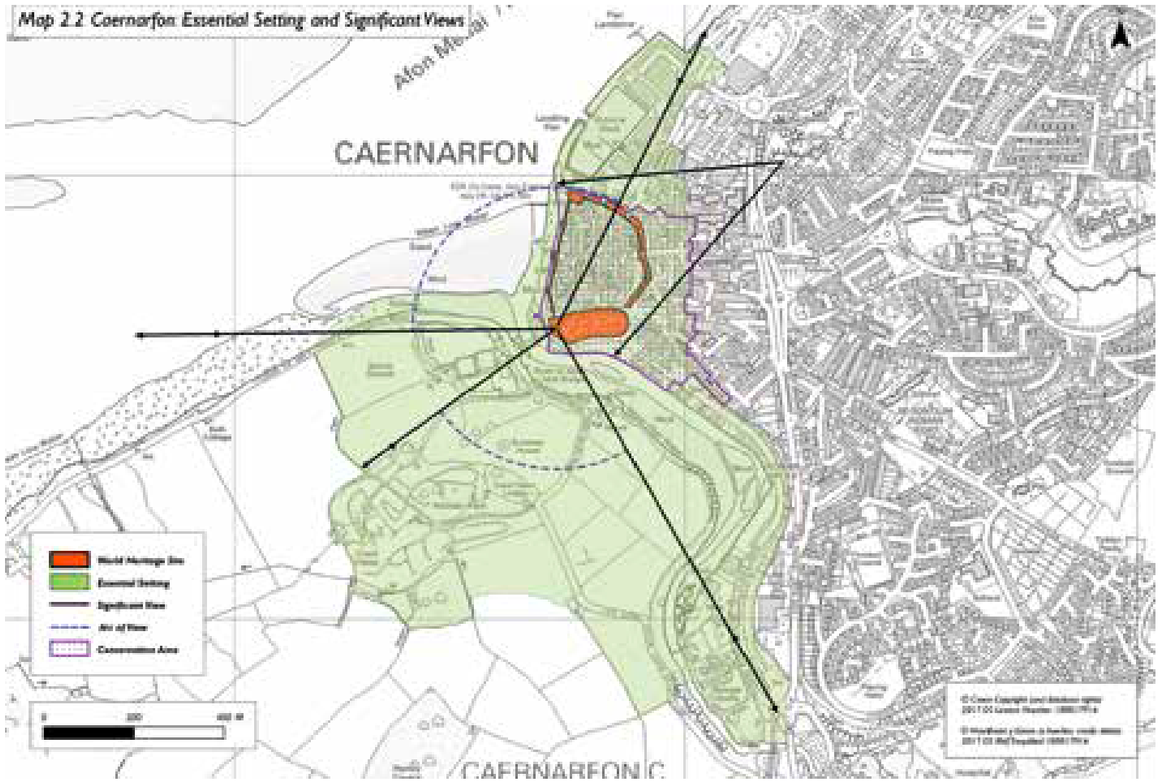


Figure 76 Essential Setting of the World Heritage Site

10.2 Significant Views: From the Castle and Town Walls

The significant views from the castle and the town walls are explained in the WHS Management Plan as: "the whole arc of the marine view of the Menai Strait including the Anglesey coast, the view of Coed Helen and inland along the Seoint. Similar views are obtained from around the wall walks and towers of the castle, and from the town walls."

10.2.1 Impacts

The proposed development at King's Gate does not impact on the significant views from the Castle and Town walls out towards the surrounding context.

10.3 Significant Views: Into the Castle and Town Walls

The significant views into the castle and the town walls are explained in the WHS Management Plan as: "views from the Menai Strait and Anglesey, views from Coed Helen and along the Seoint (this was the view painted by J.M.W. Turner, 1775-1851); and the view from Twthill. Other views are framed by the streets of the town.

10.3.1 Impacts

The proposed development at King's Gate does not impact on the significant views to the Castle and Town walls from these identified points.

10.3.2 Conclusion

In conclusion, the impact of the proposed scheme on the wider setting and on key views from and into the World Heritage property is neutral.



Figure 77 View from Coed Helen & the Caernarfon Watch Tower



Figure 78 View from Coed Helen & the Caernarfon Watch Tower



Figure 79 View from the edge of Pont Yr Aber

11.0

World Heritage Site Impact Analysis Conclusions

11.0 World Heritage Site Impact Analysis Conclusions

This section brings together the conclusions of areas of impact previously discussed.

11.1 Overall Impact on the Castles and Town Walls of King Edward in Gwynedd World Heritage Site

Intervention	Change	Impact
8.2 Conservation & Repair	Minor	**Minor Beneficial**
8.3 Structure	Major	**Major Beneficial**
Floor Plates	Major	**Major Beneficial**
Top Deck	Major	**Major Beneficial**
Tower 3 Roof + Wall	Major	**Major Beneficial**
8.4 M+E + Services	Minor	**Minor Beneficial**
8.5 Openings	Moderate	**Moderate Beneficial**
8.6 Facilities	Minor-Major	**Moderate/Major Beneficial**
WC - Tower 3	Major	**Major Beneficial**
Cafe + Overflow/Education Room	Major	**Major Beneficial**
Staff Accommodation/Back of House - Tower 2	Moderate	**Moderate Beneficial**
Entrance Sequence/Ticket Desk	Moderate	**Moderate Beneficial**
Retail	Minor	**Minor Beneficial**
8.7 Lift	Major	**Major Beneficial**
8.8 Stairs	Moderate	**Moderate Beneficial**
8.9 Balustrades	Moderate	**Moderate Benficial**
8.10 Deck Features	Moderate	**Moderate Benficial**

VALUE OF HERITAGE ASSET	SCALE & SEVERITY OF CHANGE/IMPACT				
	No Change	Negligible Change	Minor Change	Moderate Change	Major Change
For WH properties Very High - attributes which convey OUV	SIGNIFICANCE OF EFFECT OR OVERALL IMPACT (EITHER ADVERSE OR BENEFICIAL)				
	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large

Major beneficial	Moderate beneficial	Minor beneficial	Negligible beneficial	Neutral	Negligible adverse	Minor adverse	Moderate adverse	Major adverse

Figure 80 Reproduction of Impacts from Section 7 for Reference

11.2 Overall Impact on the Castles and Town Walls of King Edward in Gwynedd World Heritage Site

Essential Setting and the Conservation Area are used in place of a designated buffer zone for Caernarfon Castle, and is defined in the Management Plan. It sits outside of the WHS boundary, and the proposed scheme does not have any direct or indirect impacts on this area. The impacts on the Conservation Area, a component part of the essential setting, are outlined in 11.4 Overall Impact on Caernarfon Town. Overall, however, the proposed scheme does not have any direct or indirect harmful impacts on the essential setting of the Conservation Area.

The significant views identified within the Management Plan relate principally to the Castle's relationships with water, i.e. the Menai Strait, the Anglesey coast, inland along the Seiont and the view of Coed Helen. Testing in 10.2 Significant Views: From the Castle and Town Walls demonstrates that the proposed scheme has no impact on the significant views from the Castle and Town walls outwards. Testing in 10.3 Significant Views: Into the Castle and Town Walls demonstrates that the proposed scheme has no impact on the views into the Castle and Town walls from the identified points.

As a component of the WHS, the overall impact on Caernarfon Castle has been explored in 11.5 Overall Impact on Caernarfon Castle and has been summarised in 11.5 Overall Impact on Caernarfon Castle**.** Due to the variety of the visual inter-relationships between the towers and the King's Gate, some key viewing points have more clear visual impacts than others. This has been a vital consideration of the design process, and the visual impacts have been mitigated through use of appropriate and permeable materials, whilst also being demonstrably modern to ensure that visitors are not mislead regarding the contrast between historic and modern structure. Conversely, the new features within the King's Gate provide access for more people to experience the important views across the wards to the other towers, which will be more broad ranging as a result. In this way, the harm to the wider Castle is minor, mitigated by the positive benefits of broadening the visitor base and their experience of the castle.

The King's Gate is an element of one Castle of the four castles inscribed in the World Heritage listing. As the proposed works are limited to the King's Gate, there is no direct impact on any other castle, therefore in this way the impacts on the WHS are limited. Each of the other castles has at least one gatehouse, though their functions and survival varies. The structures were all built under the direction of the same master mason, within the same period of construction activity, therefore there are similarities, but also varieties of form and function. In addition, whereas the King's Gate was never completed, the principal gatehouse at Harlech, for example, was slighted by Parliament after the English Civil War; highlighting the varying levels of survival and wholeness across the WHS.

The King's Gate, however, has features that are not known to exist within gatehouses across the other castles, such as its location on the junction between the two wards, and the inclusion of royal insignia. Whilst the whole proposal is a major change which could be viewed as a challenge to the unique special interest of the King's Gate, this potential harm has been acknowledged throughout the design process. As a result, the design incorporates mitigation efforts to ensure that individual interventions are the minimum possible, and that there is substantial public benefit to increasing circulation and enhancing the visitor experience. The King's Gate is a substantial and significant element of the WHS, containing multitudes of OUV within it, therefore the opportunity to enhance the interpretation of these elements for greater public understanding is of great importance. Impacts within the King's Gate are explored in 8.0 King's Gate Impact Analysis. This change is recognised, and balanced by the public benefit.

11.3 Overall Impact on Outstanding Universal Value

The physical works required to carry out the proposed scheme, including fixings into and adjustments of historic fabric, are minor, and will have very little impact on the historic fabric, and specifically on attributes of OUV as outlined in 5.0 Attributes of Outstanding Universal Value. The proposed scheme has been designed to avoid direct harm to attributes of OUV, seeking to increase opportunities for visitors to engage with attributes of OUV and enhance their understanding of the King's Gate and the wider castle, as well as making the space more accessible to the general public.

The scheme intends to increase understanding OUV through both academic study, such as the Archaeological Building Survey and Record, and through public perception through enhanced opportunity and engagement.

It is worth noting that the audience survey carried out during the project development identified that many people were not aware that the Castle was part of a World Heritage Site, nor were they able to identify elements that would be considered attributes of OUV. It is important that this information is more readily available and accessible to future visitors to Caernarfon Castle.

The benefits of improved physical and intellectual access to the King's Gate outweigh the impact of those changes.

11.3.1 Value 1: The four castles of Beaumaris, Caernarfon, Conwy, Harlech and the attendant fortified towns at Caernarfon and Conwy are the finest examples of late thirteenth-century and early fourteenth-century military architecture in Europe.

The King's Gate makes a significant contribution to the representation of the significant architectural forms incorporated within this OUV. This value relates principally to the administrative, domestic and symbolic architectural aspects of the Castle's design, all of which are present here.

The King's Gate contains many complete and incomplete elements of domestic architecture, such as fireplaces and evidence of intended fireplaces. The merging of the domestic features of the Castle in such a significant defensive structure is what makes the King's Gate so fascinating. The proposed scheme intends to highlight this juxtaposition by providing further information and interpretation to the attributes that convey the OUV. Additionally, the proposed scheme has been designed to be reversible with reasonable adaptations in the future.

The increased and enhanced access to the King's Gate provided by this scheme could be seen as a harmful impact which undermines its military function. However, it is possible for this to be communicated via other means in a way that can provide the greatest amount of information to the largest number of people.

The proposed scheme does not harm, remove or obscure physical attributes related to this value that are relevant to the King's Gate within Caernarfon Castle. Some attributes, such as evidence of room function, angled towers, and multi-directional arrow loops will be more readily accessible to visitors than at present.

11.3.2 Value 2: The castles as a stylistically coherent group are a supreme example of medieval military architecture designed and directed by James of St. George, King Edward I of England's chief architect, and the greatest military architect of the age.

The King's Gate is a microcosm example of the military and Savoyard architectural styles described in the OUV.

Military elements such as the rock-cut ditch, the complex multi-directional arrow loops, meurtieres, etc. are all captured within the King's Gate. The intention is not to lose any of these features, but to highlight them where possible, through design and interpretation. The physical interventions required as part of the proposed scheme will not harm or obscure any of these elements, and where intervention is proposed, such as the glazing or barring of arrow loops, these have been designed to be reversible, with the minimum possible intervention into historic fabric.

The Savoyard features such as the wide doors and windows with tracery are also supported by this scheme, and perhaps enhanced through increasing access to some of the finest examples of these, such as the windows on the second floor.

There is no physical harm to any element of historic fabric related to attributes of OUV, and the proposed scheme has been designed to be reversible with reasonable adaptations in the future.

11.3.3 Value 3: The extensive and detailed contemporary technical, social and economic documentation of the castles, and the survival of adjacent fortified towns at Caernarfon and Conwy, make them one of the major references of medieval history.

Two extensive pieces of data have been produced on the King's Gate as part of this project. First, the point cloud and digital model of the gatehouse. Second, the 16.8 Historic Building Survey and Record by Salford Archaeology.

The digital and drawn information produced regarding the King's Gate is the most comprehensive record of that structure to date. Not least as the data captures the King's Gate in a rare state: i.e. without the adaptations that were put into place for visitor use that have obscured architectural elements. The modelled information for the King's Gate will remain as a clear and thorough record of the structure of the building after the removal of the contemporary fabric, and before the installation of anything new.

The Survey provides a unique and extensive insight into the King's Gate. Though it only covers a component part of the wider Castle, the gatehouse is the principal entrance, and therefore is more likely to contain robust evidence regarding its use. A thorough and peer-reviewed document, the Survey captures the King's Gate at a time of transition, and makes a significant record of its fabric, and the interpretation of that fabric. It provides a clear outline of the attributes that convey OUV, and enhances our understanding of the documentary sources related to this value. The in-depth study of the King's Gate has been able to contribute an additional layer of practical understanding to the information contained in Colvin et al.

In conclusion, the two key impacts on Value 3 make a considerable beneficial contribution to their understanding, and will enhance and augment the knowledge that conveys the OUV.

11.3.4 Value 5: Relationship with the coast.

There is potential for the project to have a beneficial impact on the Castle and King's Gate's relationship with the coast. It remains an important part of the significance of the structure. There is a public benefit of this scheme through enhanced visual access to the area around the Castle. The proposed scheme provides a place for visitors to learn about the Castle and how it came to be situated where it is, but also provides some more hospitable environments from which to view and contemplate the Castle's relationship with the coast. There is a view to the water from the King's Gate, though distant and obscured; however, it plays a key role in the setting.

11.3.5 Value 6: Relationship between castles and planned walled towns (Conwy and Caernarfon).

For the first time in centuries, visitors will be able to look from the windows of the King's Gate, down into the town, and see very clearly the physical connection for themselves. By removing physical barriers at the top deck level and providing access to the second floor through traditional and non-traditional routes, visitors will have access to parts of the King's Gate that have not been available for centuries. The design has been carried out with the intention of encouraging people into these spaces, and providing learning opportunities while they are there. For the first time in remembrance, visitors and other interested parties will be able to approach the remaining curtain wall of the King's Gate and view the town as those besieged. They will be able to engage with the military defensive features at this level, and understand their targets.

The King's Gate was intended as an imposing structure to deter access, and act as a symbol of oppression of the Welsh. Through time, this intended purpose has been diluted, but the Castle remains a significant landmark that is intrinsically linked to the development of the town as it is today. The Castle is still viewed by some as an English castle, therefore it is important to attempt to democratise who believes they have ownership over the building. This may happen, to some extent, by encouraging visitors to more freely traverse and enjoy it. As has been previously discussed, the principal purpose of this project is to encourage visitors and enhance their understanding of what this imposing fortress was intended for, helping it to remain relevant and informative to the general public.

Physical attributes of OUV previously identified, such as the statue of Edward II facing towards town, local limestone and yellow sandstone, will not be harmed or obscured.

11.4 Overall Impact on Caernarfon Town

The proposed scheme for the King's Gate has no direct impacts on the significance of the walled town or Conservation Area. It is possible that the scheme may facilitate greater understanding of the King's Gate's relationship with the town through increased access to the second floor, and associated interpretation.

11.5 Overall Impact on Caernarfon Castle

The proposed works within the King's Gate has a visual impact within the walls of the Castle. The new features provide access for more people to important views which will be opened up by the process. Naturally, however, the views from the other towers are now changed by the proposals. Though these views are different, they do not necessarily obscure the significance or understanding of the heritage from these other points within the Castle. In this way, the harm to the wider Castle is minor, mitigated by the positive benefits of broadening the visitor base and their experience of the castle.

11.6 Overall Impact on King's Gate

As this is where the scheme is focused, the King's Gate contains the largest scale of change. As described in 12.0 Mitigation the proposed scheme has been approached with best practice conservation principles in mind; namely, minimum intervention, reversibility, and clearly modern interventions. The proposed scheme does not intend to imitate or complete the King's Gate; the unfinished nature of which is a key attribute of OUV. Instead, the scheme seeks to work with the richness of history and information contained within it to provide an engaging and educational visitor experience.

The changes that relate directly to the historic fabric are specified in a way that minimises interaction between historic fabric and new, and proposes very little fabric removal. Where fabric removal is required, this is the minimum necessary, and in areas that make the least contribution to the understanding of significance. It is the culmination of the incremental changes to the King's Gate that has the most significant impact. The strip out and replacement of furniture within Tower 2 seeks to mitigate some damage caused previously wherever possible.

Tower 1 and the first floor of Tower 3 will be enclosed and useable spaces for the first time in centuries. This clearly will change the current understanding of the space. "Closing" the void of Tower 1 is a significant change as it will no longer be possible to view the internal structure of the tower from basement to second floor. However, these spaces will be visible from a close distance inside, which is currently not possible.

The increased access to the curtain wall of the King's Gate at the second floor level is also a direct benefit of this proposal. Key to the whole scheme is the facilitation of broader access to a significant medieval castle, which is denied to many people with access issues.

The installation of the lift is the largest individual intervention, where best efforts have been made for mitigation through material and archaeology, to balance the needs of the structure with the needs of the public.

The public benefit of this scheme has implications for the depth of engagement with the specific elements of its history and significance.

12.0

Mitigation

12.0 Mitigation

12.1 Principles of Mitigation

12.1.1 Methods of Mitigation

Potential harm to the significance of the asset has been mitigated through appropriate design development with dynamic impact assessment, additional informed research (including a Historic Building Survey and Record), and use of information on phasing, significance and understanding.

Design Team (DT)
Monument Development Team (MDT)
Heritage Consultancy Team (HCT)

12.2 Before Change

12.2.1 Concept

The key concepts behind the proposed works are driven by a policy of minimum and appropriate intervention, reversibility, and respect for the "incomplete" nature of the King's Gate as captured in the OUV.

The option presented within this document has gone through many stages of revision and development within the Design Team and amongst wider stakeholders, including Cadw and Gwynedd Council. This has resulted in a scheme that is appropriate for the significance of King's Gate, whilst also meeting the needs of Caernarfon Castle and Cadw more broadly, in direct response to their brief.

Some of the key principles of design have been consistent throughout options and variations, such as: potential for reversibility, demonstrably contemporary in design, a solution which "slots" into the existing building and can therefore be removed. The latter is also considered a method of reversing any intervention that may be considered as "finishing" the incomplete King's Gate; the possibility remains to return it to its largely original (pre-development) state.

New floor plates and other elements are to sit inside the envelope of the existing towers to increase the amount of functional space available, whilst also allowing visitors to experience the spaces within the existing towers. The contrast between historic fabric and modern interventions is legible and consistent throughout, whilst also being carried out in a material palette appropriate to the building.

The jigsaw-like approach, fitting modern elements into an historic frame, takes construction methods and materials into consideration. There is a focus on lightweight structures, having a minimal impact on the existing fabric, informed by historical precedents, and taking historical significance into consideration.

For example, the insertion of new floor plates will take place in logical locations, where it has been concluded that floors were historically intended. However, the materials and methods will clearly indicate that these are not replacing lost fabric or attempting to complete the building through imitation.

12.2.2 Design Development

12.2.2.1 Initial Design Response

When the DT were asked to respond to the brief, it was clear that the solution would require the installation of a lift shaft to create vertical access. This would facilitate increased accessibility to King's Gate and the panoramic views it offers at high level, reflecting the main objectives of the scheme.

The DT carried out a comprehensive options study to assess the viability of wheelchair access in several locations, taking practical issues and historic fabric issues into consideration. The study analysed which tower provided the most beneficial movement for both visitors with access needs, and running the monument, balanced with potential harmful impacts of inserting the lift.

This study concluded that situating the lift in the position proposed in its current situation would provide the most viable balance. The lift will form a spine through the voids of the King's Gate. This element has remained consistent since the original option developed in 2016.



Figure 81 J. Nixon. The Great Entrance to Caernarvon Castle. 1808.



Figure 82 King's Gate, c. 1848.



Figure 83 Queen's Gate, Caernarvon Castle, Interior View n.d.



Figure 85 William James Müller, Gateway of Caernarvon Castle 1833 © Tate



Figure 84 H. Hughes. Interior of Caernarvon Castle, c1850.

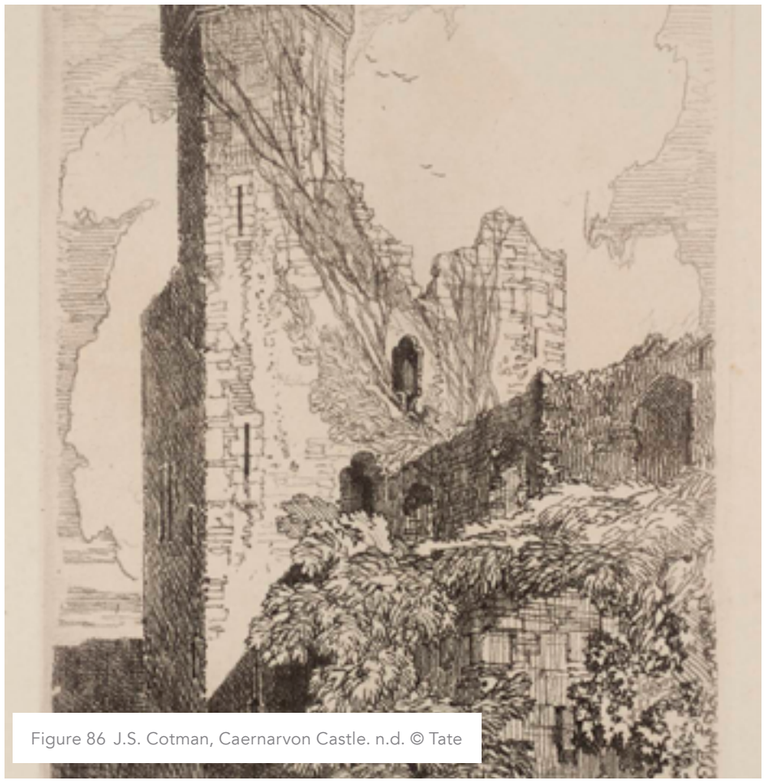


Figure 86 J.S. Cotman, Caernarvon Castle. n.d. © Tate

12.2.2.2 Second Stage

To align with funding requirements, the scheme was developed to meet the target of RIBA Stage 3. This included an exploration of massing and configuration options, and resulted in a curved glass structure atop the King's Gate. This development also confirmed that the lift placement was optimum to meet the aims of the brief.

Further consideration of the scheme through the design development process, in conjunction with initial conclusions of the Historic Building Survey and Record, ongoing discussions with the Cadw MDT and the internal HCT design review, determined that these proposals did not respond adequately to its context, i.e. in some places the new intervention inadvertently obscured significant features contributing to the Outstanding Universal Value (OUV) of the site, without sufficient mitigation.

12.2.2.3 Historic Building Survey and Record

The Historic Building Survey and Record was instrumental in rethinking the design approach. It assisted in teasing out important facets of King's Gate's significance, especially in relation to its OUV. For example, original design intent, phases of construction and repair, and its incomplete nature have had a bearing on the re-development of the design.

The DT have been able to use information from the Historic Building Survey and Record survey to guide design solutions, such as points of intervention, or areas where we are able to open access to significant elements of the OUV, such as the windows. There is no documentary evidence for the King's Gate original top floor; however, the Historic Building Survey and Record has helped us to understand its intended purpose as a gathering and banqueting space, had it been completed.

The Historic Building Survey and Record survey covers areas that are currently accessible, and will be updated in the future once the east tower has been internally stripped out.

The survey has also been reviewed by a panel of peers to ensure the document and its conclusions are academically robust. Therefore, this document is thoroughly reliable as a baseline source of information to inform the assessment of impacts.

12.2.2.4 Third Stage

To further the design development, the DT returned to historic images of the Castle in various states of decay and overgrowth. Caernarfon, in its ruined and crumbling state, would have provided a vast aesthetic appeal to the emerging Romantic sensibility of the 18th century, as ruins were much sought-after subject matter. We can understand from the evocative images of the 18th and 19th century what would have drawn artists such as JMW Turner to the Castle: the contemporary desire for the picturesque.

The DT concluded that this part of the Castle's history is currently missing from its interpretation; thus, the revised design development sought to respond to the organic nature of these earlier representations, conceptually presenting a period in the Castle's history, and making it available for visitor interpretation.

The efforts of the early conservation movement are captured in some of the more recent phases of repair. The relationship between the medieval fabric and "restorative" work, particularly at the highest level of King's Gate, begins to offer clues as to where fabric intervention might be acceptable. There is a visible line of rebuilding and re-imagining, beneath the crenellation and string course, which was used to inform the design.

This also drove reconsideration of the treatment of the lift shaft, acknowledging that any opaque mass at this level requires careful handling to find the most appropriate solution. Perhaps most importantly, the canopy that was proposed atop the King's Gate did not seek to copy any real or imagined form of the Castle, to conjecturally create a space that never existed, nor to replicate the 19th century foliage, but instead sits as a clear contrast. It was intended as an organic form built of geometric shapes and modern materials; demonstrably of its time, sitting within the historic context of the Gate.

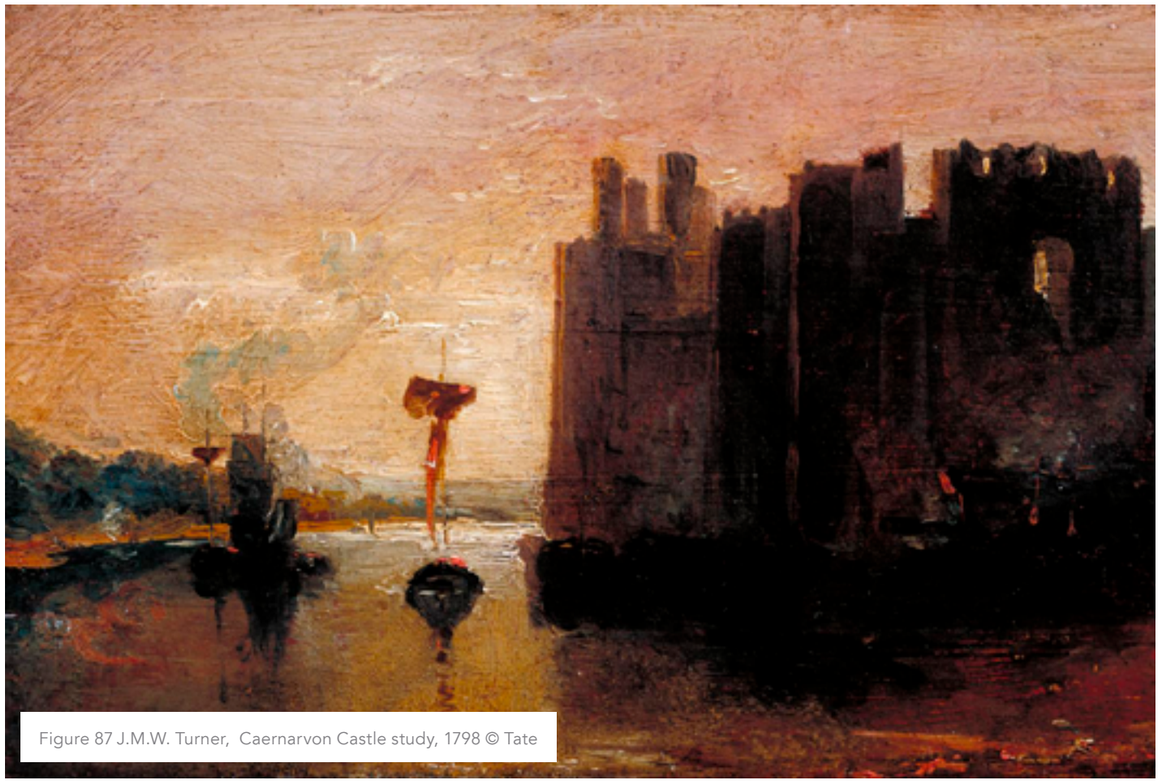


Figure 87 J.M.W. Turner, Caernarvon Castle study, 1798 © Tate



Figure 88 J.M.W. Turner, Caernarvon Castle, 1799.

12.2.2.5 Fourth Stage

Despite previous careful consideration of the context informing the design, it was concluded that the canopy component of the proposed design was not led by the World Heritage aims of conservation, particularly Article 5, and transmission of heritage values. It was concluded that the design could do more to minimise overall impacts on OUV and enhance access and understanding.

Therefore, after consultation with the MDT and wider stakeholders, the decision was made to remove the canopy from the project. The focus of the project was shifted more significantly towards accessibility, rearrangement of internal spaces, provision of visitor facilities and new floor plates.

12.3 During Change

The WSI and Historic Building Survey and Record that have been written during the development of the scheme will be updated. The Historic Building Survey and Record will be adapted to cover the elements that are not currently exposed, and the final document will be published, helping to share information about the Kings Gate.

The crane is proposed to be situated outside of the Scheduled Monument while work takes place. No potentially harmful equipment will be left inside the Castle. There are no hot works that could cause fire risks.

12.4 After Change

The scheme has been designed so it can be removed with minimal intervention into the historic fabric in the future. As the amount of historic fabric being removed is small in the context of the wider scheme, this will only constitute a small part of the wider whole. This also means that the furniture related to the new project will be clearly legible to visitors.

Elements have also been designed for maintenance and conservation of both the new and old structures. This can be addressed in Cadw's internal preventative management and maintenance regime.

An interpretation plan has been developed to augment visitor understanding of the Castle and King's Gate through the increased access created. This will help provide a substantial benefit that offsets some of the direct harm.

13.0

Consultation

13.0 Consultation

13.1 Consultation on the Scheme

The scheme has been developed in collaboration and consultation with the client team at Cadw. This has involved concept and design reviews, and detailed design decisions in order to meet the aims and objectives of the brief and the organisation. This has included potential impacts on the World Heritage Site, the Listed Building, and the Scheduled Monument. Sian Rees, as a representative of ICOMOS-UK, has also been involved in some project-development consultation, as have Gwynedd Council.

An access consultant, Phil Chambers, attended site to provide feedback on the potential for greater disabled access.

In 2019, built environment engagement specialised PlacEd, undertook two public consultation events to gain local feedback on the design at that stage. They had 150 responses to the events that took place in the square adjacent to the Castle. The scheme presented had the same basic concept, but details vary from the version presented in this document. The final findings report is reproduced for information in **16.11 PlacEd. Caernarfon Castle Engagement. 2018.**

13.2 Consultation on the Heritage Impact Assessment

The Heritage Assessment has been carried out over a course of 3 years, over which time extensive consultation on the structure and content of the document was undertaken with members of Cadw, with significant contributions from Dr. Kathryn Roberts. The document has also been reviewed by Sian Rees, a representative of ICOMOS-UK for comment.

Contributions have been made by Salford Archaeology due to their significant role in the project, in order to provide expert insight from an archaeological perspective.

The document has been peer reviewed by: Dr Christopher Young, MA, DPhil, FSA. Dr Young, a former head of World Heritage and International Advice at English Heritage, has a long experience of working with World Heritage, has been part of HIA teams, and has previously peer-reviewed draft HIAs. The summary of his conclusions of the peer review is as follows:

13.2.1 Executive Summary of Peer Review Conclusions

This Peer Review of Version 9 of the Heritage Impact Assessment (HIA) of proposals to make the King's Gate of Caernarfon Castle more accessible, to provide new facilities for visitors and staff, to provide access to parts of the Gate which are currently not accessible, was commissioned by Buttress, who are developing these proposals, to provide an external assessment of the HIA. The peer review was tasked to review the methodology used in the HIA, the quality of its findings and assessment of the impact of the proposed development, and to provide conclusions with any necessary recommendations.

Following an introductory chapter, Chapter 2 reviews international, national and local guidance on HIA and the general context of conservation of the historic environment. Such guidance provides a basis for reviewing the methodology used for the HIA. It also examined the developing policies recognising heritage as an integral part of sustainable development in order to discern the extent to which this trend should influence general conservation approaches. Much guidance, while recognising the primacy of protecting the Outstanding Universal Value of a World Heritage property, recognises that it may be necessary to balance harm to the historic environment against public benefit brought about by proposed changes.

Chapter 3 describes the methodology used by the Peer Review, and develops criteria from existing guidance for assessing four aspects of the HIA. The guidance all comes directly or indirectly from the ICOMOS Guidance on Heritage Impact Assessment (ICOMOS 2011). The four aspects, which together provide a rounded picture of the quality and relevance of an HIA, are:

- The process of the HIA
- The Content of the HIA
- The Use of Professional Judgement
- The form of the draft HIA Report

Chapter 4 uses the criteria established in the previous chapter to evaluate the draft HIA under these four headings. There had been no formal screening process and scoping study at the outset of the HIA, but the main stages of the process were well executed. Consultation had not extended beyond the immediate key stakeholders to include the wider body of interested parties, including the local community, but in this case this does not invalidate the findings of the HIA in any way.

Evaluation of impacts of the proposed works used ICOMOS methodology sensitively and effectively. Broadly the findings are acceptable but some minor adjustments of the text should be considered. The HIA shows that there are no impacts outside the Castle. Within the Castle there are minor physical impacts within the King's Gate and a little disturbance of archaeology in the Lower Ward. The principal impacts within the Castle are visual. Almost all the new work is reversible without any impact on historic fabric. There is adequate mitigation and a high level of research has informed both the proposed scheme and the HIA.

The HIA demonstrates a high standard of professional judgement, though a greater appreciation of the international and national policy and guidance would helpfully inform the judgements reached on impact. The organisation of the HIA report could be improved.

Overall this is an excellent HIA with justifiable conclusions. This Peer Review makes a series of Recommendations (see below) which should be implemented in the final version of the HIA.

13.2.1.1 Recommendations

The Process for carrying out the Heritage Impact Assessment

Recommendation 1: Expand Section 1.1, Project Background, of the HIA to clarify how it was commissioned and developed, and also to explain the relationship of this HIA with the other HIA carried out for works, such as archaeological investigations in the Lower Ward, or the temporary ticket office.

The Content of the Heritage Impact Assessment

Recommendation 2: there should be more coverage in Section 4.9 of the international and national policy context relating World Heritage to sustainable development.

Recommendation 3: Section 4.9.10 should be updated to take account of the most recent World Heritage Site Management Plan.

Recommendation 4: Sections 4.3 – 4.5.3 should be revised into one section quoting the entire RSOUV, including the section on Protection and Management. The RSOUV should be used consistently through the HIA when considering impacts on Outstanding Universal Value.

Recommendation 5: include an explanation of what attributes of Outstanding Universal Value are here (Section 4.5.4) or at the beginning of Chapter 5.

Recommendation 6: provide brief summaries of the desired outcomes/results of the proposed project and of the proposed physical changes to the King's Gate.

Recommendation 7: the points made in the commentary in Chapter 4 of the peer review on Chapter 8 need to be taken into account and appropriate changes made to the text.

Recommendation 8: Chapter 9 should include a conclusion that the impact of the proposed scheme on views from the town is neutral.

Recommendation 9: Chapter 10 should include a conclusion that the impact of the scheme on the wider setting and on key views from and into the World Heritage property is neutral.

Recommendation 10: Chapter 11 should be remodelled and modified as recommended in this section (World Heritage Site Impact Analysis Conclusions (Chapter 11)) of Chapter 4.

Recommendation 11: the Minor Comments on the text of the HIA in Chapter 4 should be taken into account and appropriate changes made to the text.

The Draft Report

Recommendation 12: The HIA report should be reordered as proposed in Table 5.

Recommendation 13: the Non-Technical Summary should be expanded and rewritten so that it can be a stand-alone summary of the HIA.

13.2.2 Response to Peer Review

Jenna Johnston, as author of this Heritage Impact Assessment, made all of the recommended changes suggested by Dr Christopher Young. We are thankful for his valuable contribution to the document.

14.0

Summary & Conclusions

14.0 Summary & Conclusions

14.1 Analysis of Potential Risk to World Heritage Status

ICOMOS Heritage Assessment guidance considers major changes to World Heritage Sites to constitute major harm. The works proposed to the King's Gatehouse are major in scale, but have been designed to minimise physical impact, and with consideration to the aesthetic and evidential values of the Gatehouse and its overall contribution to the Outstanding Universal Value of the WHS.

Design decisions have been led by the values of the WHS, and a primary objective of the scheme is to increase public and community access, use, and understanding of the building

The King's Gate is also a component part of one of the four castles and town walls included within the inscription, and therefore even where harm is identified, or attributes obscured, this does not mean that their heritage resource is lost. In addition, the new information generated by this project serves as a record and archive that will further enhance academic and operational understanding of the building.

14.2 Statement of Heritage Benefits

Extreme care and caution have been taken with the concept and detailing of the proposed scheme for Caernarfon's King's Gate. Best efforts have been made to avoid the permanent removal of historic fabric, or the unnecessary interaction of historic fabric and new interventions. Where historic fabric is required for removal, this has been kept to the minimum necessary to establish the aims and objectives of the project, focused on areas that make less of a contribution to the understanding of the significance of the asset, or proposed for reuse elsewhere in the project. Where interaction is required between new and historic fabric, this has been kept to a minimum, and in a way that is reversible.

Where new fabric is proposed for introduction, careful consideration has been given to how this may change the understanding of the space.

The floor plates were imagined at the beginning of the process as a "piece of bespoke furniture" that could slide into the unique shape of the King's Gate towers, meaning that in theory, they could be taken out the same way. The scheme revolves around the use of these floor plates to reduce potential impacts elsewhere.

As each proposed intervention has been carefully considered for its potential impacts on the significance of the heritage, their individual adjustments can be interpreted as relatively minor changes. However, perhaps most significantly, it is acknowledged that these small and incremental changes are component parts to implement a much broader concept. This overall picture of the proposal, one which contains a major change in how the King's Gate works and appears to the general public, is vital to understanding the heritage impact and benefits of the works.

The potential heritage benefits of this project are major.

Caernarfon Castle and all its component parts are vital to the understanding of the World Heritage Site. The reasons for its inscription are clear and sensible. However, the full magnitude of the building's evidential value is not fully understood by those who visit.

The Castle is a significant tourism driver for Caernarfon, and for Cadw. Therefore, there is a significant potential for the King's Gate to be a tool to enhance understanding and significance, not only of Caernarfon, but of the wider World Heritage Site. The proposed scheme seeks to democratise the space; make it relevant to a broad spectrum of audiences with a broad spectrum of interests, needs and requirements. World Heritage is of course our shared resource, and therefore best efforts must be made to make this resource accessible; physically and intellectually.

In conjunction with the scheme of interpretation, there is scope for understanding of the King's Gate to be better communicated, and those specific attributes of OUV that make sense academically to make sense more generally. There is no requirement for visitors to fully understand the complexities of inscription, but there should be the opportunity to enhance their understanding.

15.0

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15.0 Bibliography & Sources

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Buttress

Architects | Masterplanners | Heritage Consultants

King's Gate
Caernarfon Castle



Heritage Impact Assessment Appendices
November 2020

16.0

Appendices

16.0 Appendices

16.1 Inventory of Assets

Covering the area within the Town Walls.

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
×	×	Town / Civil	Medieval, post-medieval	Conservation Area		N/A	N/A					
247596	362391	Gardens, Parks and Urban Spaces	18th century	II	Probably built in the late C18 as a summer house and belvedere in the grounds of Coed Helen, and shown on the 1841 Tithe map with a 5-sided perimeter wall.	N/A	N/A	Low	No change	No change	No change	No change
247593	362616	Domestic	19th century	II	Built in 1822 (date on building) in conjunction with the ferry crossing the Afon Seiont between Coed Helen and Caernarfon Castle, and shown on the 1841 Tithe map.	N/A	N/A	Low	No change	No change	No change	No change
247977	362889	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey, part of a piecemeal terrace of the mid C19 that perpetuates the strong Georgian tradition in Caernarfon. No 15 was originally the Three Crowns Hotel and was built with No 13, while No 17 is probably a later addition. No 17 was a butcher's and grocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247909	362823	Domestic	16th century	II*	The East Gate was the main landward entrance to the medieval town and was built 1283-5 as an integral component of Caernarfon Town Wall. After damage during the uprising of 1294 the bridge carrying the approach to the walled town was rebuilt in stone, with a timber drawbridge in front of the gate. This drawbridge remained in place as late as 1520, when it was repaired. It was replaced by the present stone arch at an unknown date but perhaps in the late C16 when its defensive importance had lapsed.	N/A	N/A	Medium	No change	No change	No change	No change
247930	362886	Commercial	19th century	II	Said to have been built in 1833 and first shown on the 1834 and 1852 town maps as Williams & Co Bank. The premises had ceased to be a bank by 1888.	N/A	N/A	Low	No change	No change	No change	No change
247985	362800	Domestic	18th century w/ 19th and 20th century	II	Built in the C18 and shown on a town map of c1777, but the front was remodelled in the late C19, with C20 shop fronts. In 1895 it was occupied by a flannel and hosiery dealer.	N/A	N/A	Low	No change	No change	No change	No change
247978	362807	Domestic	18th century w/ 19th century	II	Probably built in the C18 and shown on a town map of c1777, but the shop front is late C19. It was a grocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247708	362695	Civil	19th century	II	Built in 1853 (date on building) as the Chief Constable's Office, and incorporating part of the medieval Town Wall in its gable end.	N/A	N/A	Low	No change	No change	No change	No change
247731	362704	Civil	19th century	II	Erected in 1863 as Caernarvonshire Shire Hall by John Thomas, County Surveyor. The figure of blind Justice was carved by Robert Evans of Menai Bridge. The shire hall has stood on or near the present site since before 1294. It now houses both the Crown and Magistrates Courts.	N/A	N/A	Low	No change	No change	No change	No change
247767	362709	Commercial	19th century	II	An early C19 house that by 1834 was a hotel and in 1888 was known as Castle Vaults.	N/A	N/A	Low	No change	No change	No change	No change
247782	362710	Domestic	19th century	II	Probably mid C19 and shown in the form of cottages with a passage at the W end on the 1888 Ordnance Survey. The R-hand end of the row was a temperance house in 1895. The block was converted to its present use as a gallery in the late C20.	N/A	N/A	Low	No change	No change	No change	No change
247812	362719	Domestic	19th century	II	Built in the third quarter of the C19 and shown on the 1888 Ordnance Survey, although possibly incorporating the fabric of an earlier building shown here on the 1834 town plan. It was a dressmaker's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247844	362723	Commercial	19th century	II*	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. The return elevation to Palace Street originally housed separate premises, which was a temperance house in 1883 and a wine and spirit merchant in 1895.	N/A	N/A	Medium	No change	No change	No change	No change

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
247894	362711	Commercial	18th century w/ 19th century	II	Late C18 or early C19 and first shown on the 1810 town plan. It was originally a single property with No 4 and is shown as such on the 1834 and 1852 town plans, but its present sudivision had occurred by the time of the 1888 Ordnance Survey, when it was adapted for commercial use. In 1895 No 3 was a draper's store.	N/A	N/A	Low	No change	No change	No change	No change
247926	362709	Commercial	18th century w/ 19th century	II	Late C18 or early C19 and first shown on the 1810 town plan. The present front was probably completed in 1883 with the adjoining No 11 (which is dated). It was occupied by Morgan Lloyd, wine and spirit merchant, by 1895.	N/A	N/A	Low	No change	No change	No change	No change
247932	362706	Commercial	18th century w/ 19th century	II	Late C18 or early C19 and first shown on the 1810 town plan. The present front is a remodelling of 1883 (date on building) and in 1895 was the People's Cafe Company.	N/A	N/A	Low	No change	No change	No change	No change
247939	362705	Commercial	19th century	II	A commercial premises built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Occupied by a boot maker in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248004	362665	Domestic	19th century	II	Comprised originally 2 C19 houses, the lower storeys of which were subsequently converted to shops by insertion of large windows. The building was still 2 properties in 1888 and in 1895 No 22 was occupied by an estate agent.	N/A	N/A	Low	No change	No change	No change	No change
247997	362660	Commercial	19th century	II	The E side of Castle Square is shown as already developed on the 1810 town plan, but the character of the present building suggests it is later and is the house indicated here on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247935	362635	Domestic	19th century	II	32-37 Castle Square is said to have been built in 1834 and first shown on the town map of 1834.	N/A	N/A	Low	No change	No change	No change	No change
247925	362643	Domestic	19th century	II	32-37 Castle Square is said to have been built in 1834 and first shown on the town map of 1834.	N/A	N/A	Low	No change	No change	No change	No change
247921	362677	Commemorative	19th century	II	Sir Hugh Owen (1804-1881) was a civil servant and campaigner for education in Wales. The statue erected to his memory is by J. Milo Griffith and dated 1887, and stands on a plinth by Hugh Jones of Caernarfon.	N/A	N/A	Low	No change	No change	No change	No change
247892	362662	Commemorative	20th century	II	David Lloyd George (1863-1945) was a world statesman and one of the most important British politicians of the C20. Born in Manchester, he was raised at Llanystumdwy, Caernarfonshire. The statue was erected in 1921 when Lloyd George was Prime Minister. It is by W. Goscombe John, and cast by A.B. Burton of Thames Ditton. The base is by J. Fletcher Ltd of Caernarfon.	N/A	N/A	Low	No change	No change	No change	No change
247814	362800	Domestic	18th century	II	A mid C18 town house asymmetrically planned with entrance hall to the L and stair to its rear. It was associated with the Foxwist family.	N/A	N/A	Low	No change	No change	No change	No change
247818	362790	Commercial	19th century	II	Built in the early C19 by Richard Garnons, a prominent local landowner. It was described as 'a large new house' in 1809. It was converted as business premises later in the C19 and in 1895 was the office of a solicitor and a printer.	N/A	N/A	Low	No change	No change	No change	No change
247808	362776	Domestic	19th century	II	5 Castle Street was built in the early C19 by Richard Garnons, a prominent local landowner. It was described as 'a large new house' in 1809. The boundary wall is an integral feature of the house shown on the 1834 town plan and originally enclosed a forecourt. It now forms the boundary of a courtyard in front of council offices.	N/A	N/A	Low	No change	No change	No change	No change
247796	362806	Commercial	19th century	II	An early C19 house shown on the 1834 town plan. It was adapted to commercial use by the late C19 and was a grocer's store in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247795	362798	Domestic	18th century	II	A late C18 house incorporating a statue niche of probably late medieval origin. In the late C19 the building was adapted, like other premises in the walled town, for commercial use. In 1883 it was a temperance house but by 1895 it was a public house and dining rooms.	N/A	N/A	Low	No change	No change	No change	No change
247793	362779	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Perhaps originally intended as houses for Caernarfon's growing professional and business sector, they were nevertheless soon adapted as business premises. In 1895 No 12 was the Judges Lodging, while No 10 was the office of the town clerk and a solicitor.	N/A	N/A	Low	No change	No change	No change	No change
248072	362541	Domestic	19th century	II	An early C19 house shown on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247761	362836	Domestic	19th century	II	Probably early C19 and shown on the 1810 town plan. A tablet dated 1652 with the monogram 'WT', possibly William Thomas, was perhaps re-used from an earlier house on the site	N/A	N/A	Low	No change	No change	No change	No change
247743	362832	Domestic	19th century	II	An early C19 house built in the period 1810-34 and first shown on the 1834 town plan, with later rear wing.	N/A	N/A	Low	No change	No change	No change	No change
247737	362842	Domestic	19th century	II	Originally 2 houses and shown on the 1890 Ordnance Survey. The building was combined into a single commercial property in the mid C19 and is shown as such on the 1953 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247742	362855	Domestic	19th century	II	Built in the period 1810-34 and first shown on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247755	362948	Religious, Ritual and Funerary	Medieval	I	Begun c1307 when Henry of Ellerton, deputy and subsequently master mason of Caernarfon Castle, obtained a licence to build a chantry chapel. However, the scale of the building indicates that it was also originally intended to serve as a chapel for the garrison stationed at Caernarfon, and has always been a chapel-of-ease to Llanbeblig parish church.	N/A	N/A	High	No change	No change	No change	No change

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247711	362817	Domestic	Medieval	I	Originally known as the West Gate, Porth y Aur was the main seaward entrance to the medieval borough and was an integral component of Caernarfon Town Wall. The borough of Caernarfon was established by Edward I of England under the Statute of Wales in 1284.	N/A	N/A	High	No change	No change	No change	No change
247763	362827	Domestic	19th century	II	Dated 1808 with the monogram RN, said to refer to the Nanney family. In the late C19 its L side wall facing Church Street was roughcast when it was combined as a single business premises with 2 Church Street.	N/A	N/A	Low	No change	No change	No change	No change
247788	362827	Commercial	16th century	II	11-13 High Street was once a single house, probably of c1700. (A sundial dated 1616 is said to have been reclaimed from a building on the site of 1 Market Street, which was demolished in 1820 when a market hall (later the Conservative Club) was constructed on the site.)	N/A	N/A	Low	No change	No change	No change	No change
247800	362830	Commercial	19th century	II	The lower storey is a market hall erected c1820. It continued to serve as a meat market after the building was heightened in 1886 (date on building) with the building of the Conservative Club.	N/A	N/A	Low	No change	No change	No change	No change
247831	362829	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a grocer's shop in 1895. Owned by the Vaynol Estate until 1957.	N/A	N/A	Low	No change	No change	No change	No change
247845	362829	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was occupied by a coal merchant in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247856	362833	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a grocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247901	362823	Civil	Medieval	II*	The East Gate was the main landward entrance to the medieval borough and its upper storey over the gateway accommodated the Exchequer, the financial and administrative centre for the shire counties of NW Wales. The East Gate was rebuilt 1301-2 and continued to house the Exchequer until 1536.	N/A	N/A	Medium	No change	No change	No change	No change
247755	362808	Domestic	19th century	II	Built in the early C19 and shown on the 1834 town map	N/A	N/A	Low	No change	No change	No change	No change
247774	362809	Domestic	19th century	II	Originally a single building with No 14 and shown on the 1834 town map, but the brick front is probably mid C19 with contemporary shop front. It was a butcher's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247781	362809	Domestic	19th century	II	Originally a single building with No 12 and shown on the 1834 town map, but the front is a remodelling of the late C19. It was a printer's in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247787	362809	Domestic	16th century	II*	Probably 1768, the date on a rainwater head shared with the adjacent No 18, but remodelled in the early C19. In 1895 it was a fishmonger's shop.	N/A	N/A	Medium	No change	No change	No change	No change
247793	362811	Domestic	18th century	II*	Dated 1768 on a rainwater head shared with 16 High Street, although a later inscription on the building claims a date of 1735. The character of the building suits the later date rather than the earlier. Alteration in the late C19 comprised the creation of shop fronts in the lower storey and the application of roughcast to the main elevations.	N/A	N/A	Medium	No change	No change	No change	No change
247812	362812	Commercial	19th century	II	Part of an early C19 block of 3 houses on High Street and Castle Street shown on the 1834 town plan. No 20 was converted to commercial use later in the C19 and was a grocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247844	362811	Commercial	18th century w/ 19th century	II	A late C18 or early C19 shop shown on the 1834 town map. It was a temperance house in 1883 and a confectioner's by 1895.	N/A	N/A	Low	No change	No change	No change	No change
247874	362809	Commercial	19th century	II	Probably built as commercial premises in the third quarter of the C19 and shown on the 1888 Ordnance Survey. In 1895 it was occupied by a draper's store and solicitor's office.	N/A	N/A	Low	No change	No change	No change	No change
247883	362809	Commercial	16th century	II*	A c1700 house planned around a central entrance hall and stair in a rear projection. The present Georgian front is dated 1784 on a rainwater head. The lower storey was converted to shops in the C19. In 1895 the building housed a watchmaker and a millinery and hosiery shop.	N/A	N/A	Medium	No change	No change	No change	No change
247891	362813	Commercial	19th century	II	Built as a shop in the mid C19 and first shown on the 1888 Ordnance Survey. It was a temperance house in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247885	362758	Commercial	19th century	II	A commercial building probably built in the 3rd quarter of the C19 and shown on the 1888 Ordnance Survey as part of a large block of buildings between Hole-in-the-Wall Street and Palace Street, although the architectural treatment of the front may be late C19. It was a public house in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247824	362911	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247835	362915	Domestic	19th century	II	An early C19 town house of the Glynne family of Glynllifon, containing interior detail similar to their country house at Llandwrog.	N/A	N/A	Low	No change	No change	No change	No change
247800	362845	Domestic	18th century	II	A mid C18 house said to have formerly borne a rainwater head dated 1755. In the C19 it became the Drum Inn, the front was roughcast in the late C19. Converted to a surgery in the late C20.	N/A	N/A	Low	No change	No change	No change	No change

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247795	362856	Domestic	18th century	II	A late C18 house shown on the 1810 and 1834 town plans. It was converted to business premises later in the C19 and was a solicitor's office in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247796	362868	Domestic	19th century	II	Dated 1800 on rainwater heads and shown on the 1810 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247796	362862	Domestic	19th century	II	Dated 1800 on rainwater heads and shown on the 1810 town plan. Built on a terrace of 3 houses, no. 7 was converted to business premises later in the C19 and in 1895 was occupied by a solicitor and an accountant.	N/A	N/A	Low	No change	No change	No change	No change
247799	362880	Domestic	18th century	II	An C18 house shown on the 1810 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247848	362866	Commercial	17th century	II	A C17 house built in several phases, all probably of the C17. The first phase was probably the main range and rear wing on the R side.	N/A	N/A	Low	No change	No change	No change	No change
247872	362837	Domestic	19th century	II	An early C19 house shown on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247878	362795	Commercial	19th century	II	Built in 1832 by John Lloyd (details on tablet), architect of Caernarfon, as a corn market, and on the site of an earlier house known as Plas Mawr.	N/A	N/A	Low	No change	No change	No change	No change
247862	362713	Commercial	19th century	II	Probably built in the C19 although its front was remodelled early C20.	N/A	N/A	Low	No change	No change	No change	No change
247850	362780	Commercial	Medieval w/ 18th century and 19th century	II*	A late medieval building partly timber-framed but subsequently rebuilt in stone. Its present external appearance is C18 when its front was remodelled in conjunction with an added 2-bay house (6A).	N/A	N/A	Medium	No change	No change	No change	No change
247850	362772	Domestic	18th century	II	An C18 house shown on the 1810 and 1834 town plans. The front was remodelled in the late C19 when it was converted to commercial use. It was a saddlery in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247850	362766	Domestic	19th century	II	An early C19 house shown on the 1834 town map. It was converted to commercial use later in the C19 and was the Blue Bell public house by 1883.	N/A	N/A	Low	No change	No change	No change	No change
247847	362747	Domestic	18th century	II*	Probably mid C18, although it has re-set panelling in the entrance of hall of the early C17. By 1828 it was the Newborough Arms.	N/A	N/A	Medium	No change	No change	No change	No change
247847	362740	Domestic	18th century	II	A late C18 house shown on the 1810 and 1834 town plans. It was converted to commercial use later in the C19 and was a shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247847	362736	Commercial	17th century w/ 19th century	II	A small single-unit C17 house incorporating a passage to a court at the rear. The front wall was raised and a shop front with sash windows created in the late C19, perhaps when it was converted to commercial use. It was a watchmaker's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247847	362732	Commercial	17th century w/ 19th century	II	A small C17 house, probably originally with its gable end facing the street. It was converted to business premises in the C19 and by 1888 it was the Bardsey Inn	N/A	N/A	Low	No change	No change	No change	No change
247965	362615	Commercial	19th century	II	Probably mid C19 and built on the site of a former school shown on the 1834 town plan, which was replaced by a National School c1843.	N/A	N/A	Low	No change	No change	No change	No change
247988	362614	Domestic	19th century	II	Built with No 6 as a pair of terraced houses in the early C19 and shown on the 1810 and 1834 town maps. 5-9 Segontium Terrace represents the early development of middle-class urban housing outside the town centre and the site was chosen for its view over the Afon Seiont at a time before the full development of Slate Quay as a port.	N/A	N/A	Low	No change	No change	No change	No change
247996	362600	Domestic	19th century	II	7-9 Segontium Terrace was built in the early C19 probably as a single development and is shown on the 1810 and 1834 town maps, but the houses never had a unified design.	N/A	N/A	Low	No change	No change	No change	No change
247999	362596	Domestic	19th century	II	7-9 Segontium Terrace was built in the early C19 probably as a single development and is shown on the 1810 and 1834 town maps, but the houses never had a unified design.	N/A	N/A	Low	No change	No change	No change	No change
248008	362582	Commercial	19th century	II	Built in the period 1810-34. It is first shown on the 1834 town map but is not identified as a public house and so was probably originally a dwelling. It was converted to the Albert Inn in the mid C19 and is shown as such on the 1888 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
248041	362549	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map as part of Segontium Terrace and terminating the terrace comprising Nos 11-19.	N/A	N/A	Low	No change	No change	No change	No change
248057	362528	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248049	362534	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map as part of Segontium Terrace and terminating the terrace comprising Nos 20-26. External detail is the result of late C19 remodelling.	N/A	N/A	Low	No change	No change	No change	No change

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248053	362530	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
247698	362707	Commercial	18th century	II	Originally the Customs House and said to have been built in 1736.	N/A	N/A	Low	No change	No change	No change	No change
247890	362645	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247907	362608	Maritime	19th century	II*	Caernarfon Harbour Trust was founded in 1793 following an Act of Parliament to improve the harbour facilities. The Trustees met in various locations until a purpose-built office was erected. The building is dated 1840 and is by John Lloyd, architect of Caernarfon.	N/A	N/A	Medium	No change	No change	No change	No change
247887	362829	Domestic	19th century	II	Built in the second half of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247887	362829	Domestic	19th century	II	Built in the second half of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247813	362839	Communications	20th century	II	Elizabeth II K6 kiosk, the type introduced in 1936 to the design of Giles Gilbert Scott. This example was manufactured by Carron & Co, Stirlingshire.	N/A	N/A	Low	No change	No change	No change	No change
247983	362769	Commercial	19th century	II	Probably built in the early C19 and the building shown here on the 1834 town map. It was 2 properties by 1888, by which time the building may have been remodelled to create the present front, although the shop front and interior probably date from the last decade of the C19.	N/A	N/A	Low	No change	No change	No change	No change
247996	362625	Communications	19th century	II	Built in 1880 but partly adapted from an earlier building.	N/A	N/A	Low	No change	No change	No change	No change
248000	362642	Religious, Ritual and Funerary	19th century	II	Built in 1883 (date on building) by Richard Owen, architect of Liverpool. The contractor was Richard Williams of Bank Quay, Caernarfon.	N/A	N/A	Low	No change	No change	No change	No change
247914	362646	Domestic	19th century	II	32-37 Castle Square is said to have been built in 1834 and first shown on the town map of 1834.	N/A	N/A	Low	No change	No change	No change	No change
247906	362650	Domestic	19th century	II	32-37 Castle Square is said to have been built in 1834 and first shown on the town map of 1834.	N/A	N/A	Low	No change	No change	No change	No change
247901	362653	Domestic	19th century	II	32-37 Castle Square is said to have been built in 1834 and first shown on the town map of 1834.	N/A	N/A	Low	No change	No change	No change	No change
247884	362664	Civil	20th century	II	The terrace was created in 1911 as a viewing area for the investiture of the Prince of Wales at Caernarfon Castle, on land donated by Baron Vaynol (details on tablets attached to 37 Castle Square).	N/A	N/A	Low	No change	No change	No change	No change
247899	362710	Commercial	18th century w/ 19th century	II	Built in the late C18 or early C19 and shown on the 1810 town plan. It was originally a single property with No 3 and is shown as such on the 1834 and 1852 town plans, but its present sudivision had occurred by the time of the 1888 Ordnance Survey, when it was adapted fo commercial use. In 1895 No 4 was a ironmonger's store.	N/A	N/A	Low	No change	No change	No change	No change
247903	362708	Commercial	18th century w/ 19th century	II	Late C18 or early and first shown on the 1810 town plan. Nos 5 and 6 Castle Square were originally a single property and are shown as such on the 1834 and 1852 town plans, but its present sudivision occurred in the third quarter of the C19 when the building was adapted to commercial use, and is shown on the 1888 Ordnance Survey. The present frontages date from the time of subdivision. In 1895 No 5 was a saddlery.	N/A	N/A	Low	No change	No change	No change	No change
247906	362709	Commercial	18th century w/ 19th century	II	Late C18 or early and first shown on the 1810 town plan. Nos 5 and 6 Castle Square were originally a single property and are shown as such on the 1834 and 1852 town plans, but its present sudivision occurred in the third quarter of the C19 when the building was adapted to commercial use, and is shown on the 1888 Ordnance Survey. The present frontages date from the time of subdivision. In 1895 No 6 was a tailor's shop.	N/A	N/A	Low	No change	No change	No change	No change
247910	362709	Commercial	18th century w/ 19th century	II	Late C18 or early C19 and first shown on the 1810 town plan. It was originally a single 3-bay property with No 8 and is shown as such on the 1834 and 1852 town plans, but its present subdivision had occurred by the time of the 1888 Ordnance Survey, when it was adapted to commercial use. In 1895 it was occupied by a corn merchant.	N/A	N/A	Low	No change	No change	No change	No change
247914	362709	Commercial	18th century w/ 19th century	II	Late C18 or early and first shown on the 1810 town plan. It was originally a single 3-bay property with No 7 and is shown as such on the 1834 and 1852 town plans, but its present subdivision had occurred by the time of the 1888 Ordnance Survey, when it was adapted to commercial use. In 1895 it was a grocer's store.	N/A	N/A	Low	No change	No change	No change	No change
247919	362709	Commercial	18th century w/ 19th century	II	Late C18 or early C19 and first shown on the 1810 town plan. The frontage was remodelled in the late C19 when it was adapted to commercial use and in 1895 was an auctioneer's office.	N/A	N/A	Low	No change	No change	No change	No change

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
247943	362705	Commercial	19th century	II	A commercial premises built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Occupied by a tobacconist in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247945	362712	Commercial	19th century	II	A commercial premises built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Occupied by a printer and bookseller in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247975	362657	Commemorative	20th century	II	Erected in 1922 by Rowland Lloyd Jones, County Architect, and built by J & H Patterson of Manchester for £1120. A tablet commemorating the fallen of 1939-45 was added in 1950.	N/A	N/A	Low	No change	No change	No change	No change
247818	362808	Commercial	19th century	II	Part of an early C19 block of 3 houses on High Street and Castle Street shown on the 1834 town plan. No 22 High Street is shown on the 1888 Ordnance Survey as the Angel Vaults.	N/A	N/A	Low	No change	No change	No change	No change
247813	362807	Domestic	19th century	II	Part of an early C19 block of houses on High Street and Castle Street shown on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247794	362789	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Perhaps originally intended as houses for Caernarfon's growing professional and business sector, they were nevertheless soon adapted as business premises. In 1895 No 8 was the office of a solocitor and surveyor.	N/A	N/A	Low	No change	No change	No change	No change
247794	362794	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey. Perhaps originally intended as houses for Caernarfon's growing professional and business sector, they were nevertheless soon adapted as business premises. In 1895 No 6 was the Pearl Life Assurance Office.	N/A	N/A	Low	No change	No change	No change	No change
247820	362717	Commercial	19th century	II	Probably built in the early C19 and shown on the 1834 town plan. Originally it was a house with railings enclosing external basement steps, which are shown on the 1888 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247826	362716	Commercial	18th century / 19th century	II	Shown as a pair of late C18 or early C19 houses, on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247833	362722	Commercial	18th century	II	Probably an C18 house and one of the buildings indicated here on the 1810 town map. It was converted to business use in the late C19 and in 1895 housed an auctioneer's office and a wine and spirit merchant.	N/A	N/A	Low	No change	No change	No change	No change
247743	362863	Domestic	19th century	II	Built in the period 1810-34 and first shown on the 1834 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247797	362872	Domestic	19th century	II	Dated 1800 on rainwater heads and shown on the 1810 town plan.	N/A	N/A	Low	No change	No change	No change	No change
247824	362907	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247823	362903	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247823	362899	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247823	362894	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247730	362805	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1888 Ordnance Survey, although still in Georgian style.	N/A	N/A	Low	No change	No change	No change	No change
247837	362828	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a butcher's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247850	362830	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a chemist's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247760	362808	Domestic	19th century	II	Built in the early C19 and shown on the 1834 town map	N/A	N/A	Low	No change	No change	No change	No change
247979	362803	Commercial	18th century w/ 19th and 20th century	II	Built in the C18 and shown on a town map of c1777, but the front was remodelled in the late C19, with C20 shop fronts. In 1895 it was occupied by a watchmaker.	N/A	N/A	Low	No change	No change	No change	No change
247993	362611	Domestic	19th century	II	Built with No 5 as a pair of terraced houses in the early C19 and shown on the 1810 and 1834 town maps. 5-9 Segontium Terrace represents the early development of middle-class urban housing outside the town centre and the site was chosen for its view over the Afon Seiont at a time before the full development of Slate Quay as a port.	N/A	N/A	Low	No change	No change	No change	No change
247994	362606	Domestic	19th century	II	7-9 Segontium Terrace was built in the early C19 probably as a single development and is shown on the 1810 and 1834 town maps, but the houses never had a unified design.	N/A	N/A	Low	No change	No change	No change	No change

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
248062	362459	Industrial	19th century	II	Built as the Union Ironworks office and showroom in the third quarter of the C19 and shown on the 1889 Ordnance Survey. The Union Ironworks was founded by Owen Thomas in the early 1840s, who was joined by J.P. de Winton in partnership in 1854.	N/A	N/A	Low	No change	No change	No change	No change
248078	362448	Industrial	19th century	II	As a foundry and engineering works it specialised in supplying marine engines and boilers, mainly to Merseyside shipbuilders, and also supplied machinery to the N Wales slate industry. By the second decade of the C20 the premises was occupied by the Kiwi Engineering Works.	N/A	N/A	Low	No change	No change	No change	No change
248078	362448	Industrial	19th century	II	Probably erected in the late C19 and shown on the 1889 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
248013	362578	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248016	362574	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248019	362570	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248021	362567	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248024	362564	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248027	362560	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248030	362557	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248033	362554	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248037	362552	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
247859	362718	Commercial	19th century	II	Probably adapted as commercial premises from an early C19 building but first shown in its present form on the 1888 Ordnance Survey. It was a baker's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247848	362794	Commercial	19th century	II	Built in the third quarter of the C19, on the site of the former Plas Puleston. Plas Puleston was one of several plasau or town houses, built by leading gentry families from the late C16.	N/A	N/A	Low	No change	No change	No change	No change
247850	362800	Commercial	19th century	II	Erected in the third quarter of the C19, on the site of the former Plas Puleston, and first shown on the 1888 Ordnance Survey when No 4 was The Old Red Lion public house.	N/A	N/A	Low	No change	No change	No change	No change
247868	362811	Commercial	19th century	II	Built in the third quarter of the C19 and shown on the 1888 Ordnance Survey as the Adelphi Hotel. The hotel was described as new in 1881 and was on the site of an earlier house and the town's original post office.	N/A	N/A	Low	No change	No change	No change	No change
247771	362827	Commercial	19th century	II	Originally a single 3-bay house, probably of the early C19 and shown on the 1834 town plan. It was divided into 2 properties in the third quarter of the C19 and is shown as such on the 1890 Ordnance Survey. No 7 was a confectioner's store in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247775	362827	Domestic	19th century	II	Originally a single 3-bay house, probably of the early C19 and shown on the 1834 town plan. It was divided into 2 properties in the third quarter of the C19 and is shown as such on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247823	362885	Domestic	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247810	362727	Commercial	19th century	II	Probably built in the early C19 and shown on the 1834 town plan, but the block is first shown in its present subdivided form on the 1888 Ordnance Survey. The external detail dates from its later C19 subdivision.	N/A	N/A	Low	No change	No change	No change	No change
247810	362734	Domestic	19th century	II	Probably built in the early C19 and shown on the 1834 town plan, but the block is first shown in its present subdivided form on the 1888 Ordnance Survey. The external detail dates from its later C19 subdivision.	N/A	N/A	Low	No change	No change	No change	No change
248060	362525	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248064	362521	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248067	362517	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
248070	362514	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248074	362509	Domestic	19th century	II	Built in 1828 and first shown on the 1834 town map.	N/A	N/A	Low	No change	No change	No change	No change
248078	362504	Domestic	19th century	II	Built in the period 1834-52 and first shown on the 1852 town map. It was added to a pre-existing terrace comprising Nos 20-26.	N/A	N/A	Low	No change	No change	No change	No change
248083	362499	Domestic	19th century	II	Built in the period 1834-52 and first shown on the 1852 town map. It was added to a pre-existing terrace comprising Nos 20-26.	N/A	N/A	Low	No change	No change	No change	No change
248013	362671	Commercial	20th century	II	Built in the early C20 as the National Provincial Bank and first shown on the 1918 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247974	362699	Commercial	19th century	II	Built in the 3rd quarter of the C19 as a block with No 6, originally comprising 3 properties and shown on the 1888 Ordnance Survey as 2 properties. In 1895 No 2 was a chemist's shop and No 4 was an ironmonger's shop.	N/A	N/A	Low	No change	No change	No change	No change
247978	362709	Commercial	19th century	II	Built as a pair with No 4 - part ofa block including No 2 Bridge Street - in the 3rd quarter of the C19 and shown on the 1888 Ordnance Survey as the Holland Arms public house.	N/A	N/A	Low	No change	No change	No change	No change
247985	362711	Commercial	19th century	II	Built in the period 1810-34 and first shown on the 1834 town map, but altered late C19 to the present shop. In 1895 it was occupied by Griffith Griffith, tailor and outfitter.	N/A	N/A	Low	No change	No change	No change	No change
247980	362761	Commercial	19th century	II	A pediment bears a date stone of 1835 but in its present form the building belongs to the third quarter of the C19 and is shown on the 1888 Ordnance Survey. It was a tobacconist's shop in 1895	N/A	N/A	Low	No change	No change	No change	No change
247979	362756	Commercial	19th century	II	The building is probably early C19 and one of the buildings shown on Bridge Street on the 1834 town plan, but the present front is a remodelling of the third quarter of the C19. In 1895 it was occupied by a bookseller and printer.	N/A	N/A	Low	No change	No change	No change	No change
247976	362751	Commercial	19th century	II	The building is probably early C19 and one of the buildings on Bridge Street shown on the 1834 town plan, but the present front is a remodelling of the third quarter of the C19. It was an ironmonger's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247975	362744	Commercial	19th century	II	The present building was built in the final decade of the C19 and first shown on the 1900 Ordnance Survey, although it may have represented an enlargement and remodelling of an earlier building shown here on the 1888 Ordnance Survey	N/A	N/A	Low	No change	No change	No change	No change
247976	362811	Commercial	18th century w/ 19th century	II	Probably built in the C18 and one of the buildings shown on a town map of c1777, but the present details represent a remodelling during the third quarter of the C19. It was a hairdresser's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247920	362820	Commercial	19th century	II	Built in the third quarter of the C19 in similar style and probably later than 6-14, which have a slightly different alignment, a higher ridge line, and were probably a single planned development. The building is shown on the 1890 Ordnance Survey and was occupied by a draper in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247929	362814	Commercial	19th century	II	Built in the third quarter of the C19 in similar style to 8-14, which are earlier, and shown on the 1890 Ordnance Survey. In 1895 it was occupied by a cabinet maker.	N/A	N/A	Low	No change	No change	No change	No change
247933	362815	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a greengrocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247938	362813	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. In 1895 it was occupied by a boot maker.	N/A	N/A	Low	No change	No change	No change	No change
247942	362812	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was a clothes store in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247949	362807	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. In 1895 it was an ironmongery.	N/A	N/A	Low	No change	No change	No change	No change
247946	362833	Commercial	20th century	II	Built in the early C20 and first shown on the 1918 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
248000	362834	Commercial	19th century	II	2-6 Bangor Street was built in the third quarter of the C19 but the original L end was probably demolished when the Library and Institute was built in 1884. The block is first shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247999	362840	Commercial	19th century	II	2-6 Bangor Street was built in the third quarter of the C19 but the original L end was probably demolished when the Library and Institute was built in 1884. The block is first shown on the 1890 Ordnance Survey. No 4 was a butcher's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248000	362845	Commercial	19th century	II	2-6 Bangor Street was built in the third quarter of the C19 but the original L end was probably demolished when the Library and Institute was built in 1884. The block is first shown on the 1890 Ordnance Survey. No 6 was a temperance house and confectionery in 1895.	N/A	N/A	Low	No change	No change	No change	No change

Location Easting	Location Northing	Type of asset	Period	Statutory designation	Brief description	Authenticity	Integrity	Importance	Development magnitude of impact	Development significance of effect – construction	Operational magnitude of impact	Operational significance of effect
248018	362850	Civic	19th century	II*	Built in 2 phases. The earlier was built in 1884 on the corner with Bangor Street, incorporating 2 shops (8-10 Bangor Street) as separate premises within the basement. The building was erected as a workmen's institute and housed a library, lecture room and art room. It became a Free Library after the Public Libraries Act of 1887.	N/A	N/A	Medium	No change	No change	No change	No change
247999	362865	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. No 14 was occupied by a plumber and painter in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248000	362870	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. No 16 was occupied by a cabinet maker in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248000	362875	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. No 18 was a grocer's shop in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248000	362880	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. No 20 was temperance house and confectionery in 1883 and 1895.	N/A	N/A	Low	No change	No change	No change	No change
248001	362886	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. Occupied by Williams Jones, watchmaker, in 1895.	N/A	N/A	Low	No change	No change	No change	No change
248002	362891	Commercial	19th century	II	Built in the third quarter of the C19 and first shown on the 1890 Ordnance Survey. It was occupied by the Arvon Shipping Company in 1883 and by a Calvinistic Methodist book agent in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247978	362884	Commercial	19th century	II	Built with No 15, probably as a shop, in the third quarter of the C19 and first shown on the 1890 Ordnance Survey, part of a piecemeal terrace of the mid C19 that perpetuates the strong Georgian tradition in Caernarfon. It was a draper's store in 1895.	N/A	N/A	Low	No change	No change	No change	No change
247855	363063	Maritime	19th century	II	Dated 1883 by Frederick Jackson, engineer of Nottingham, and built by Oliver & Co of Chesterfield. Built over the entrance to the dry dock of the harbour, which was completed in 1874. A similar bridge was built over the harbour entrance.	N/A	N/A	Low	No change	No change	No change	No change
247885	363177	Maritime	19th century	II	ictoria Dock was completed by 1874 and is shown in its present form on the 1890 Ordnance Survey. The Crane, by W Johnson & Co of Liverpool, is also shown on the 1890 Ordnance Survey and may be an integral feature of the original dock.	N/A	N/A	Low	No change	No change	No change	No change
247787	363129	Maritime	19th century	II	Completed by 1874 and shown in its present form on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247985	362589	Transport	19th century	II	Part of the 'Carnarvon Town Line' built 1865-70 to link the Carnarvon & Llanberis Railway with the Bangor & Caernarvon Railway. The tunnel portal was built in 1869, the date on an iron girder cast at the Union Ironworks on nearby Slate Quay.	N/A	N/A	Low	No change	No change	No change	No change
247722	362858	Maritime	19th century	II	Originally built as the quay serving the medieval town. The original wooden quay was destroyed in the 1294 uprising and was superseded by a stone quay that is shown on John Speed's 1610 plan of Caernarfon. The present structure is mainly C19 and built in 2 main phases.	N/A	N/A	Low	No change	No change	No change	No change
247730	362748	Civil	19th century	II	Built as the County Jail in the third quarter of the C19 on the site an earlier jail. The present outline of buildings facing the street is shown on the 1888 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247688	362657	Maritime	19th century	II	Slate Quay was developed in the early C19 when Caernarfon was growing in importance as a port. It was served directly by the 9-mile Nantlle Railway which opened in 1828 and brought copper and slate into Caernarfon.	N/A	N/A	Low	No change	No change	No change	No change
247811	362739	Domestic	19th century	II	11-15 Castle Street was built in the early C19 and is shown on the 1834 town plan, but the block is first shown in its present subdivided form on the 1888 Ordnance Survey. No 11 has openings inserted in the C20.	N/A	N/A	Low	No change	No change	No change	No change
247745	362872	Domestic	20th century (w/ 19th century fabric)	II	11-15 Church Street was built in the early C20 on the site of the former North Wales Training College, and incorporated some of the earlier fabric and its overall plan. The college was built in the third quarter of the C19 and is shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247746	362880	Domestic	20th century (w/ 19th century fabric)	II	11-15 Church Street was built in the early C20 on the site of the former North Wales Training College, and incorporated some of the earlier fabric and its overall plan. The college was built in the third quarter of the C19 and is shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247748	362890	Domestic	20th century (w/ 19th century fabric)	II	11-15 Church Street was built in the early C20 on the site of the former North Wales Training College, and incorporated some of the earlier fabric and its overall plan. The college was built in the third quarter of the C19 and is shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247911	363046	Commercial	19th century	II	Probably contemporary with Victoria Dock, completed in 1874, and shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247886	363066	Commercial	19th century	II	Probably contemporary with Victoria Dock, completed in 1874, and shown on the 1890 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change
247877	363061	Commercial	19th century	II	Built in the final decade of the C19 and first shown on the 1900 Ordnance Survey.	N/A	N/A	Low	No change	No change	No change	No change

16.2 The Setting of the Castles

The following text relates to the setting of the Castle and is extracted from the *Castles and Town Walls of King Edward in Gwynedd Management Plan* (2018). It covers elements relating specifically to Caernarfon Castle, and information considered relevant for assessment.

16.2.1 Relationship between the Castles and Their Towns

The symbiotic relationship between the castles and their towns provided economic and political benefit, and was used by Edward I to establish English settlement. In all four cases, the towns were sited on the most vulnerable sides of the castles and, where built, their walled defences provided additional support for the castle defences. Key elements of all four modern towns include the survival of a medieval street pattern and a plot structure based on medieval burgages. In some cases, post-medieval buildings were constructed of masonry robbed from the ruins of the castles.

In both Conwy and Caernarfon, the original relationship between the castles and their towns is demonstrated by surviving town wall circuits with defensive features such as wall-walks, defended gateways, arrowloops and open-backed D-shaped mural towers, which allow sections of wall to be isolated when under attack. There is also a relationship between the castles and medieval churches within the towns (St Mary's Church in Caernarfon and St Mary's Church in Conwy). For the most part, the walls did not incorporate contemporary buildings, with the exception of Llywelyn's Hall at Conwy.

In medieval times, the town of Caernarfon was smaller than either Beaumaris or Conwy, but it has grown substantially over the centuries. The castle's environment has been much changed over time by gradual rebuilding within the walls and especially by the development of the town as a port for the slate industry in the nineteenth century. Suburban expansion in the nineteenth and twentieth centuries, the creation of a bypass and the recent development at Victoria Dock have all contributed to the changes around the castle. Within the town walls, medieval burgages were adapted by the building of larger town houses. In terms of civic buildings, the construction of Pencadlys (Gwynedd Council headquarters) in the 1980s involved the redevelopment of a large plot in the town centre — integrated with the historic townscape to some extent by its fragmented plan. The Maes is outside the town walls, but was the original market place and has always been an important civic space.

16.2.2 The Relationship with the Coast

As noted earlier, the relationship between the castles and the sea has played an integral and important role in the early growth of settlements, seaborne trade and commerce. All four castles were located at points along the Welsh coast where they could be supplied from the sea. There are water gates at all four sites, designed for direct access from the coast. In Caernarfon, the Menai quayside was part of the original building campaign, which enabled large quantities of building material to be imported and underpinned the economy of the new town. The dock at Beaumaris is more elaborate than those at Conwy and Caernarfon, perhaps the result of the experience of the 1294 uprising and the need for Edward I to retain a naval force in the Menai Strait to safeguard the continued delivery of stone, timber and other supplies necessary to build the castle. The towns very quickly became sophisticated settlements with international trading relationships.

The post-medieval period saw a steady increase in coastal activity and a commensurate growth in port and harbour facilities. For example the growth in mercantile trade is illustrated by the presence of wealthy merchants' houses in the town of Conwy; coastal trade between Beaumaris and Chester regularly carried fish, wool and cloth. During the Industrial Revolution, the harbour at Caernarfon was further developed to service the busy slate industry, with the Slate Quay developed formally in the early nineteenth century.

The relationship of the four towns with the sea continues to change, with present-day challenges and opportunities focusing on the potential of former harbours and quays for regeneration (including marinas, commercial and residential development), leisure and renewable energy.

16.2.3 The Relationship with the Natural Environment

Caernarfon Castle is sited prominently on the shore of the Menai Strait and between the mouths of the rivers Seiont and Cadnant. The Menai Strait and Conwy Bay Special Area of Conservation is designated under the European Habitats Directive for its range of marine habitats. The Afon Seiont is designated as an SSSI, for its geological interest. Trees within the wooded bank of the River Seiont are subject to Tree Preservation Orders. The area is known to be a habitat for protected species including bats, otters, lampreys, Atlantic salmon and sea trout.

16.3 Social and Cultural Context

This section explores elements of more recent history that are of relevance to the four castles and walled towns, including:

- their role in the conservation movement
- their passage into the care of Cadw on behalf of the Welsh Ministers
- the commemorative role of Caernarfon Castle
- the role of the castles in the twentieth century
- Welsh nationalism and cultural identity
- the rise of modern tourism.

16.3.1 The Conservation Movement

The repair and restoration of Caernarfon Castle began at about the same time as the beginnings of the wider preservation movement elsewhere in the UK. Research work by Richard Avent identified the formative influence of the early conservation work at Caernarfon in developing the conservation philosophy of 'conserve as found'. Although consideration was given to selling the castle in the early part of the nineteenth century, it was decided that it should remain in Crown ownership. In 1845, Anthony Salvin, a leading Victorian architect, was asked to report on the condition of the castle. However, the restoration of the castle mainly took place as a result of the vision of Sir Llewelyn Turner, who was deputy constable of the castle from 1870 to 1903. Turner undertook a significant restoration programme at the castle, innovatively funded through a four pence entrance fee charged to visitors. The impact of Turner's work remains apparent in the castle as it appears today, not least in terms of its crenellated wall tops, largely restored under his direction. Fortunately, his use of contrasting stonework identifies the modern restoration.

The castles passed into State care at various times during the twentieth century. In 1908, Caernarfon Castle passed into the care of the Office of Works, which took on responsibility for its conservation according to the prevailing principle of 'conserve as found'. Harlech Castle has been maintained as an ancient monument since 1914 and Beaumaris Castle since 1925, when the Commissioners of Works carried out a large-scale conservation programme that included stripping back vegetation, digging out the moat and repairing stonework. In 1953, Conwy Castle and Town Walls were leased from the Conway Corporation (now Conwy County Borough Council) on a 99-year lease. Today, all four castles and the town walls are cared for by Cadw on behalf of the Welsh Ministers according to Conservation Principles for the Sustainable Management of the Historic Environment in Wales.

16.3.2 Commemorative Role

The tradition of holding the investiture of recent princes of Wales at Caernarfon Castle began in 1911, on the recommendation of David Lloyd George, then Chancellor of the Exchequer. To date there have been two ceremonies: Prince Edward (later King Edward VIII) in 1911 and Prince Charles, the current prince of Wales, in 1969.

The two investitures were viewed by the Welsh people in very different ways, as summarised by Alun Ffred Jones, then Minister for Heritage in his paper 'King Edward I's Castles in North Wales — Now and Tomorrow.' The 1911 investiture attempted to celebrate the medieval conflicts of its origin, with journalists depicting Caernarfon Castle both as a 'means of subjugating Wales, but also a tribute to the tenacity of the Welsh.' A Welsh journalist at the time wrote that 'the old castle of the oppressor is in its ruins: the national spirit is stronger than ever it was before' and Caernarfon Castle was seen as testament to the strength of medieval Welsh resistance and also as the scene of reconciliation.

The 1969 investiture took place in a different political climate, at a time when there were concerns about the political future of Wales and the survival of the Welsh language. Although the investiture was popular amongst many, Caernarfon Castle was also the scene of several protests and the focus of an anti-investiture campaign.

The castles have also been used as a focus for commemorative events; for example, lighting has been used on the castle walls at Caernarfon to remember soldiers who died in the First World War and the 'Weeping Window' poppy sculpture, by artist Paul Cummins and designer Tom Piper, was on display here during autumn 2016. A beacon was lit at Beaumaris Castle to commemorate VE Day. In 2011, Harlech Castle was selected as one of 26 iconic UK landmarks to appear on a set of commemorative stamps produced by the Royal Mail.

16.3.3 Welsh Nationalism & Cultural Identity

In the nineteenth and twentieth centuries Wales became increasingly conscious of its national identity. The 1997 devolution referendum and the subsequent Government of Wales Act 1998 devolved powers from Parliament to the National Assembly for Wales.

History has bequeathed two sets of cultural values to the castles and town walls of King Edward I in Gwynedd. On the one hand, they are admired for their grandeur and for their quality as works of architecture; on the other, they are seen as symbols of oppression and alienation. Both sets of cultural values contribute to the importance of the World Heritage Site.

The paper by Alun Ffred Jones describes the feelings of pride, admiration and resentment that 'jostle closely together' in relation to King Edward's castles, with feelings being 'naturally strongest in Gwynedd, and most marked in the case of Caernarfon, where one of the most strongly Welshspeaking towns is watched over by the grandest and most symbolic of King Edward's castles.'

Recent cultural events celebrating Welsh distinctiveness and identity have included the Urdd National Eisteddfod, held in Gwynedd in 2012, with a parade through the town and proclamation ceremony held at Caernarfon Castle attended by more than 6,000 people in 2011.

The Welsh language is central to the cultural distinctiveness of Wales and has been the main carrier of Welsh identity for centuries. The presence of the Welsh language in north-west Wales is particularly strong. 2011 census data identified the percentage of Welsh speakers in Gwynedd and Anglesey as 65.4 per cent and 57.2 per cent of the population respectively (the average across Wales is some 19 per cent). At ward level, this figure can be as high as 86 per cent in Caernarfon. The presence of Welsh speakers in Conwy, further to the east, is much lower (27.4 per cent for the county borough in the 2011 census). This is a result of factors similar to those experienced elsewhere in Wales, such as in-migration from England, out-migration of Welsh speakers, educational factors and a decline in the way the Welsh language has been passed from one generation to the next. There is, however, recognition of the need to safeguard and nurture the position of the Welsh language in the community.

16.3.4 The Growth of Tourism

For much of recorded history, travel was difficult, uncomfortable, expensive and frequently dangerous. It is only since the mid-nineteenth century that travel for pleasure has become more affordable, safer and less difficult (first with the introduction of the railways, then cars and the increasing availability of international travel). Increases in the standard of living, the introduction of annual holidays and an increasing desire for travel have all fuelled the rapid and massive growth in modern tourism seen towards the end of the twentieth century.

The four castles have long been destinations for visitors to north Wales. In the late eighteenth and early nineteenth centuries, they were a magnet for poets and painters, who were unable to travel to mainland Europe as a result of the Napoleonic wars. In the mid-nineteenth century, the arrival in north Wales of the railway made the area more accessible for tourists. For example, the arrival of the railway in Harlech in 1867 heralded an increase in the number of visitors to the town in the summer months. In the middle of the twentieth century, tourism fast became an important element of the economic fabric of Wales with the north Wales coast, Snowdonia and the castles proving particular draws. The 1960s and 70s saw a high point in visitor numbers and tourism growth: in 1976, over one million visits were made to the four castles. Since this time, changes in the holiday market have included cheaper flights and competition from destinations abroad. The previous management plan identified that between 1986 and 2004, visitor numbers to the castles declined by some 15 per cent. There has also been a change in visitor habits, with increases in short breaks and day trips rather than formal holidays. This change in visitor behaviour has continued and visitor numbers have also increased in recent years.

16.3.5 The Castles in Art, Music and Literature

As monuments in the Welsh landscape, the castles have inspired artists throughout their long history. In the seventeenth and eighteenth centuries, they were subjects for topographical artists. Examples of this genre include John Boydell's engraving A North West View of Caernarfon Castle (1749) and engravings by the brothers Samuel and Nathaniel Buck, who illustrated all four castles in 1742.

With the beginning of the Romantic movement, artists were inspired to paint the castles in naturalistic landscapes to show their relationship with their settings. For example, Paul Sandby painted both Conwy and Harlech in 1776.When the Romantic artists were unable to travel to mainland Europe during the Napoleonic Wars, they discovered other parts of Britain, including Snowdonia. All four castles were painted on many occasions by artists who used them to express their own visions of Romantic landscapes. Examples include Conway Castle, Moonlight at the Ferry (1794) by Julius Caesar Ibbetson (1759–1817) and, perhaps most famously, a series of paintings by J. M. W. Turner.

Turner discovered north Wales in two tours in 1798–99, returning with a series of sketchbooks which became the basis for a number of his finest finished paintings, including Harlech Castle from Tygwyn Ferry, Summer's Evening Twilight (around 1798–99), Caernarvon Castle, North Wales (1799–1800) and Conway Castle (about 1803). Two later paintings followed; Caernarvon Castle, Wales around 1832 and Beaumaris Castle, Isle of Anglesey around 1835.

More recently, twentieth-century artists have sought to recreate historical scenes in the light of current knowledge. Examples include Alan Sorrell (1904–74), whose painting of Harlech Castle shows clearly how it could have been supplied from the sea; Terry Ball (1931–2011) and John Banbury (1938–97), who produced 'bird's-eye' views of all four castles; Ivan Lapper (1939–), whose paintings illustrate the walled towns and particular events in their history, and Chris Jones-Jenkins (1954–), who specialises in cutaway reconstruction illustrations.

Links between the castles and literature are primarily related to The Mabinogion, a collection of eleven tales of Celtic medieval mythology. References are made both to Caernarfon in 'The Dream of the Emperor Maxen' and to Harlech in The Mabinogion.

Maxen Wledig was emperor of Rome. One day he went hunting with his retinue and around midday fell asleep in the sun. He had a dream which saw him travelling along a river valley until he reached the highest mountain he had ever seen and beyond it were the 'fairest plains that anyone had ever seen'. He travelled on to the mouth of a great river, and saw 'a great city at the mouth of the river, and a great wall around the city with many great towers of different colours'. He travelled further until he reached more mountains. 'From there he saw an island in the sea … From that mountain he saw a river crossing the land, making for the sea, and at the mouth of the river he saw a great castle, the fairest anyone had ever seen'. The dream led him to the castle gate which he found open and inside he found a hall with a roof of gold tiles and walls lined in sparkling stones and gold paved floors. He sat down in a golden chair with a beautiful maiden and had his arms around her. At that point he awoke from his dream and was determined to find this maiden.

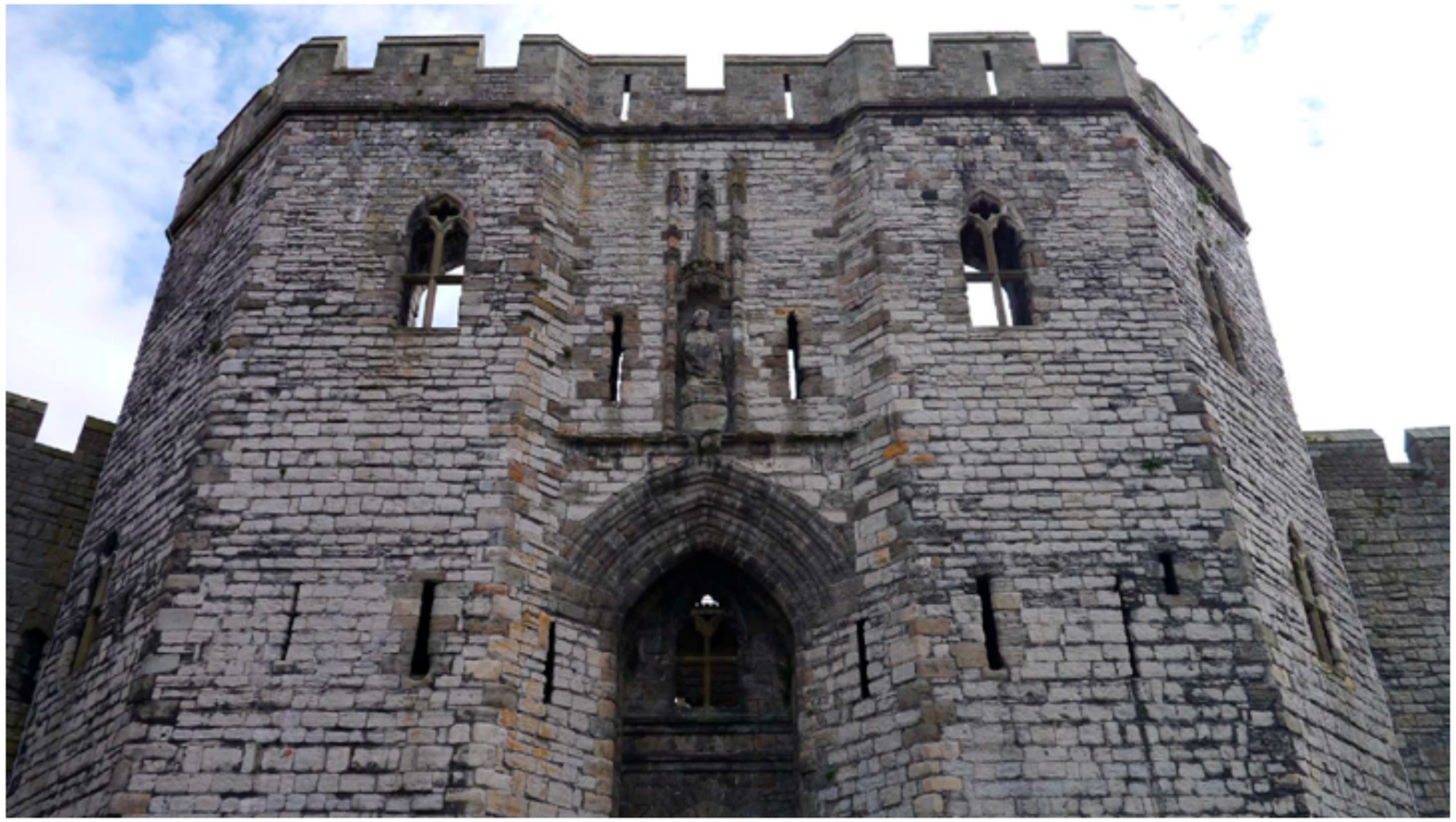
He sent messengers travelling the world looking for her to no avail until one group reached the island of Britain and found Eryri, realising that this was the land that their lord had seen and finally located the maiden seated in a gold chair at the castle.

16.3.6 The World Heritage Site Communities Today

Today, the four castles are at the heart of four different communities. Caernarfon, the county town of Gwynedd is the largest with a population of over 9,000 (9,615 in 2011 census). It has a busy infrastructure and includes both Welsh Government and local authority administrative centres, national hotel and supermarket chains as well as regional businesses and trades. Conwy has a population of over 4,000 (4,065 in 2011 census) and lies alongside the mainline railway and the A55 coast road. A greater proportion of this community is employed in tourism or at the council offices. Beaumaris and Harlech are almost identical in size and much smaller with a population of around 2,000 each (in the 2011 census, Beaumaris was recorded with 1,938 residents and Harlech with 1,997). Beaumaris's geographical location makes it less accessible than Conwy, for example, and as a result is perhaps a more closely knit community, but its focus on tourism is equally strong.

Caernarfon Castle attracted 301,567 visitors during 2016/17. The 2014 study identified that the castle contributed £2.6 million to the local economy (equivalent to 142 jobs). The castle continues to be a focus for regeneration investment, delivered through a multi-agency partnership, which includes Gwynedd Council and Cadw. Recent and future projects include the continued regeneration of Caernarfon Waterfront (focusing on the historic Island Site at Slate Quay), as well as improving visitor facilities such as the Welsh Highland Railway terminus in the town. Caernarfon also remains home to areas of significant deprivation. The wards of Peblig and Cadnant, for example, are recognised as being areas with above average levels of poverty and unemployment.

16.4 Buttress. Feasibility Study Report. 2017.



Caernarfon Castle – Kings Gate Development

Feasibility Study Report

December 2016

Buttress



Feasibility Study Report

Caernarfon Castle – Kings Gate Development

Rev	Date	Status	Initials	Description
3rd	February 2017	DRAFT	SA / KC	Third Draft (for issue)
2nd	December 2016	DRAFT	SA / KC	Second Draft (for issue)
1st	November 2016	DRAFT	SA	First Draft

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Buttress

41 Bengal St.
Manchester
M4 6AF

T 0161 236 3303
F 0161 236 3303
E contact@buttress.net
W www.buttress.net

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1 Executive Summary

1.1 Introduction

1.1.1 This report has been prepared to summarise design development for the Caernarfon Castle – Kings Gate Development.

1.1.2 It is intended to provide a summary of the key issues identified thus far, identify possible approaches and opportunities to fulfilling the brief and to provide a basis for discussion on the emerging design solutions.

1.2 Summary of Progress to Date

1.2.1 Progress to date can be summarised as follows:

- Initial concept design developed and submitted with the tender documents.
- Appointment confirmed, programme and cash flow developed.
- Measured Survey commissioned.
- Measured Survey completed on site.
- Point Cloud released.
- Initial BIM massing study provided.
- BREEAM Assessor tendered and appointed.
- Design Team Meetings and Review Meetings held.
- Initial investigations undertaken on structure, drainage, M&E.
- Initial options developed.
- Draft Feasibility Study prepared and released.
- Comments received on Draft Feasibility Study Report through MDT Meeting.
- Further design development on narrowed down options, focusing on scale, mass & materiality, including sketch visuals.
- Quotations received for drainage investigation works.

1.3 Key Issues

1.3.1 In developing this study, it has become clear that accessibility and drainage are the key technical challenges.

1.3.2 In terms of accessibility, the openings which best suit vertical access from ground floor are narrow and only just fit a standard wheelchair. Larger and motorised wheelchairs are unlikely to be accommodated, although this requires further study.

1.3.3 Drainage infrastructure locally is minimal and particularly for foul drainage, likely to be challenging to get to any sensible point on the site. Again, this requires further study.

1.4 Initial Options

1.4.1 The initial options articulated in this report set out potential spatial arrangements which fit within the concept developed at tender stage.

1.4.2 It was agreed at the MDT meeting of 13th December 2016 that Option 1, with the lift located in 'Tower 1,' or the north-western part of the King's Gate, was to be taken forwards as the preferred space planning option.

1.4.3 Design development was to focus on the scale and mass at the upper level of the King's Gate, with reference to whether the visual impact of development could be carefully handled, potentially with the café offer at a lower level.

1.5 Development of Options

1.5.1 The above has been assessed through this report, with a range of design developed to look at the scale and mass of development at the upper level of the King's Gate. A total of four options have been developed.

1.5.2 One of these, Option 1a, considers the café being positioned one level lower than the upper level and accessible by lift. This option is constrained, creating a café that would not be viable and would create significant operational challenges and negative impacts on the visitor experience.

1.5.3 Options 1b, 1c and 1d consider the café at the upper level with varying degrees of shelter incorpoprated into the design.

1.5.4 A complete narrative on this is given throughout Section 7 of the report.

1.6 Further Design Development

1.6.1 Some initial feedback on these options was received, requesting some sketch visuals exploring scale, mass, form, disposition and materials in terms of potential visual impact.

1.6.2 These are included in Section 8 and illustrate that it is possible for visual impact to be reduced through appropriate choice of materials and form.

1.7 Outcomes

1.7.1 The report is issued to seek feedback from the MDT on current design development.

DRAFT

2 Introduction

2.1 Introduction

2.1.1 This report has been prepared to describe design development and space planning options for the Caernarfon Castle Kings Gate Development.

2.1.2 This report is intended to illustrate work undertaken to date in respect of the initial design concept, design development and space planning options, in response to the brief at Appendix 11.1 and Buttress' original tender response, described in Section 3.3 of this report.

2.2 Purpose of the Report

2.2.1 The report considers the feasibility of approaches to the development of the Kings Gate and is for the purpose of facilitating feedback on current design development.

2.3 Limitations of the Report

2.3.1 The findings of the report is based on information available at the time preceding preparation of the design information contained herein. In particular, survey information is limited, described in more detail in 4.9, therefore the spatial arrangements and underlying concept require further design development once the survey information is completed.

2.4 Authorship

2.4.1 The Report has been prepared by Stephen Anderson BA(Hons) BArch PGDip (Arch. Cons.) RIBA, Associate Director and Kimberley Corrall BA(Hons) BArch, Architect with Buttress Architects Ltd.

2.4.2 Contributions have been made to this report by other design team members, as follows:

Jenna Johnson – Heritage Consultant (Buttress)

Ika Hukanova - Quantity Surveyor (SP Projects)

Gerwyn Davies – M&E Engineer (Carpenter Davies Partnership)

Pat Ruddock – Structural Engineer (Mann Williams)

Sian Trulio – BREEAM Assessor (Zero Energy Design)

Richard Ker – Measured Survey (Salford Archaeology)

2.5 Acknowledgements

2.5.1 The report acknowledges the support and assistance of staff from Cadw in facilitating the preparation of this report.

2.6 Naming Conventions

2.6.1 The report uses the naming conventions in the diagram at Figure 1.

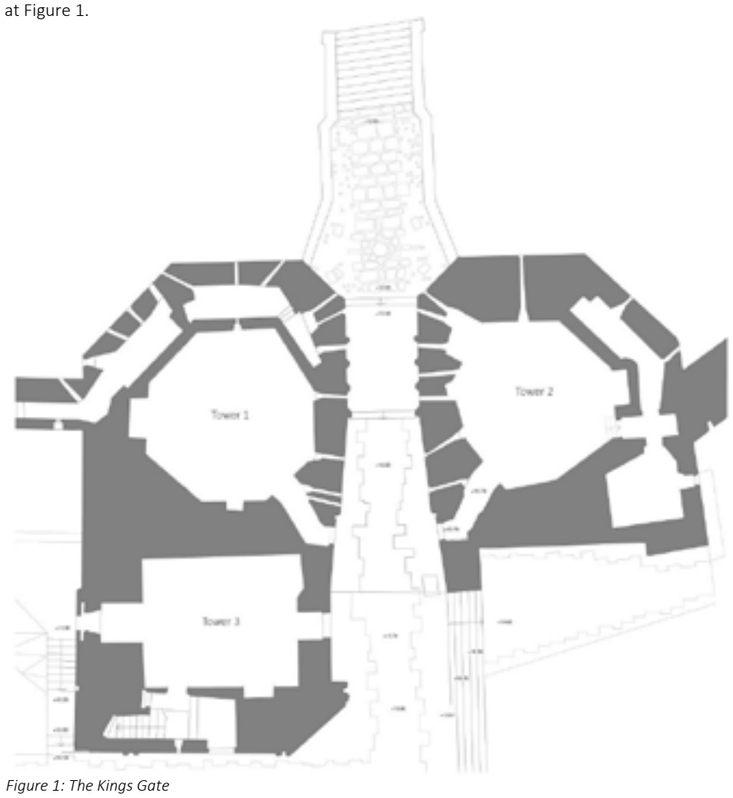


Figure 1: The Kings Gate

3 Project Background & Brief

3.1 Project Background

3.1.1 Buttress were appointed to the Caernarfon Castle Kings Gate Development in August 2016 following a competitive tender process which included the assessment of concept designs for the project.

3.1.2 A copy of the brief can be found at Appendix 11.1 and is summarised below.

3.1.3 Buttress' design response is included at Section**Error! Reference source not found.** below.

3.1.4 It is understood that the brief has been developed following initial feasibility work undertaken by Donald Insall Associates and culminating in the development of a new visitor welcome facility at the entrance into Caernarfon Castle through the Kings Gate.

3.1.5 This project therefore represents a second phase of development of the Kings Gate, focusing on providing improved facilities for visitors with an emphasis on revenue earning facilities.

3.2 Project Brief & Objectives

3.2.1 A copy of the project brief is contained at Appendix 11.1.

3.2.2 The brief contains a set of key project objectives, against which the success of the project will be measured. Primary Objectives are as follows:

- Improvement and/or relocation of Staff Facilities - consisting of Office (to cater for 3 workstations, cash safe, EPOS Back Office system, space for filing and storage), Mess Room (to accommodate 4-5 people, sink and counter for tea/ coffee/wash-up facilities, microwave, fridge, 5no. lockable coat lockers) and separate WC facilities.
- Improvement to current Visitor WC provision, extending to the inclusion of DDA compliant facilities.
- Increased and improved Retail space within the Kings Gate Tower area. The existing Cadw shop-fittings will be used. Separate storage area will be needed.
- Options for the provision of a light snack and refreshments including imaginative solutions to accommodate 36-44 seated covers.
- Options for providing an enhanced visitor experience by identifying areas and/or opportunities for imaginative, interactive and immersive experiences e.g. within dungeon spaces and dressed rooms through technology e.g virtual reality. WiFi connectivity will be required throughout the development. Multiple and adaptable lighting and power sockets will be required.
- Vertical access to the battlements

3.2.3 Secondary Objectives were also identified, as follows:

- Improved multi-purpose and accessible education facilities for visiting schools or interest groups. Adequate storage facilities will be needed within this space. Inclusion of a sink with hot/cold water supplies would be ideal. WiFi connectivity within this space and an interactive whiteboard is a pre-requisite
- Provide innovative temporary weather resilience solutions e.g the provision of service stations' (water and electric supply points) by which gazebos or other lightweight structures can be placed for seasonal use.

3.2.4 The report measures the potential of each option against these objectives.

3.3 Initial Design Response

3.3.1 In response to the tender Brief, Buttress prepared the design response as follows and included at Appendix 11.2 in full.

A lightweight structure spans the Kings Gate and provides a unique sheltered seating area and cafe outlet.

Occupying what would have been a great hall, the new spaces echo the originally intended function.

Visitors are protected by the building; allowing them to take time out, to sit and reflect and experience the sense of place.

The material palette will weather over time and ultimately become at one with the building.

As the castle has a solid tactile quality, so the new has its own textures and tones; allowing the visitor to subliminally distinguish between new and old.

Careful detailing continues this subtlety of approach and design language.

3.4 Current Position

3.4.1 It is understood that Buttress' proposal was selected in no small part due to the design concept put forwards.

3.4.2 It is therefore understood that whilst no creative ideas are to be precluded, the client has a strong preference for implementation of the principles illustrated in Buttress' tender design concept.

3.5 Building Information Model (BIM)

3.5.1 The project brief calls for the project to be implemented using BIM, to 'Level 2.'

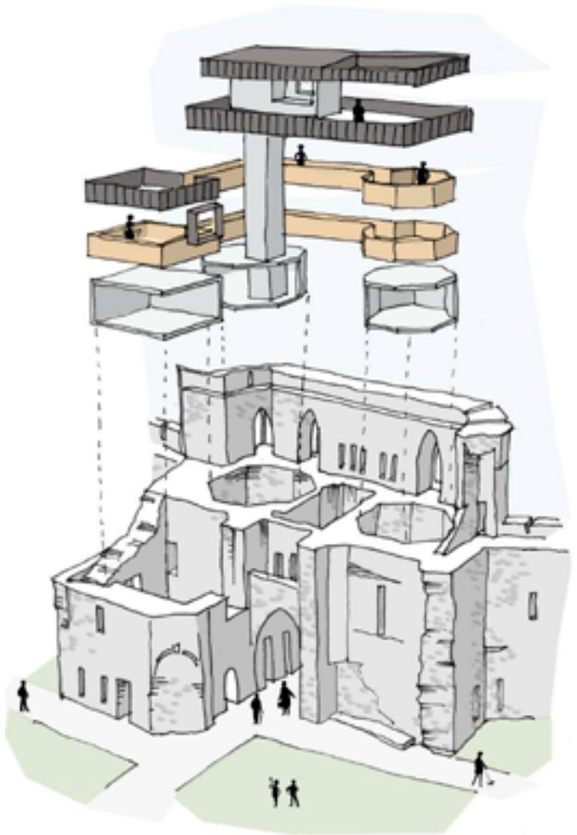
3.5.2 BIM can be described as virtual prototyping of buildings and is three dimensional and parametric in nature, ultimately resulting in a three-dimensional representation of the proposed building which also contains information on materiality.

3.5.3 It is understood that this project represents the first use of BIM for Cadw and as such, Buttress and their team are to ensure that learning from the project can be shared with Cadw and other framework consultants.

3.5.4 BIM and the current software that drives it have inherent weaknesses when it comes to complex and irregular existing buildings. Historic Buildings such as Caernarfon Castle can be successfully worked with in BIM, although there are special challenges and constraints to be overcome, particularly in the initial measured survey and production of 'as existing' information in a BIM format.



Figure 2: Buttress tender proposal







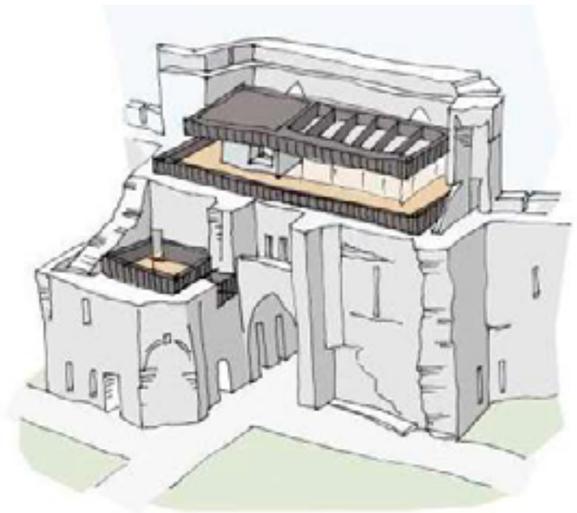


Figure 3: Examples of Buttress tender concept studies

3.6 Measured Survey

3.6.1 The scope of service includes provision of a measured survey of the King's Gate. This survey is to be prepared in a form compatible with the BIM approach to the project.

3.6.2 The survey process includes a complete laser scan of the King's Gate, internally and externally and then using this dataset to prepare the Model.

3.6.3 Modelling in BIM is, by its nature, labour intensive and time consuming, as such and to ensure continued progress on the project, Salford Archaeology, the surveyors, have prepared an initial model featuring critical dimensions but otherwise lacking in detail, as a means of facilitating initial feasibility work.

3.6.4 In order to overcome these limitations and ensure that the feasibility study is as useful as possible, a copy of the point cloud has been provided to Buttress, which has been interrogated to provide critical information where necessary, along with site visits and site dimensions being taken to assess critical issues.

3.6.5 The completed model is to be delivered towards the end of March 2017.

3.6.6 On this basis, the information provided to date has limitations and as such, the scope of the feasibility study to date equally has limitations.

3.7 Programme

3.7.1 The current programme is appended to this report at Appendix 11.3.

3.7.2 The programme indicates that the Feasibility Study is due to be completed in March 2017.

3.7.3 Alongside this, a draft specification / tender document is required to satisfy funding requirements by early May 2017.

3.7.4 Beyond this, the agreed scheme will be developed for submission for statutory consents in June 2017, with tender documents being prepared alongside the consents process.

3.7.5 Tenders will be sent out in the autumn of 2017 with construction works to start late 2017 / early 2018.

3.8 BREEAM

3.8.1 The project is to be subject to a BREEAM Assessment, with the objective of achieving a 'Very Good' rating.

3.8.2 Some credits are 'time limited,' with the work needing to be complete at feasibility stage in order to achieve the credits. Credits available for early stages work on the project have been identified as follows:

- Sustainability Champion – Agreed extension to the BREEAM Assessors contract which could gain potentially 2-3 credits.
- Renewables Feasibility Study – Early stages study on the potential for renewables.
- Consultation – This will be happening, so potential for credits for for this.
- Life Cycle Costing – Costs are being sought for this.
- Thermal Model – Costs are being sought for this.
- Acoustic Testing – It is unlikely that an acoustician will bring any tangible benefit to the project. This is to be considered further.
- Cycle Racks/Facilities – These facilities normally include shower / changing room provision, which will be extremely difficult to accommodate within the scheme. There are cycle racks located around Caernarfon and limited opportunities to locate them within the Castle.
- Recycling – Waste management from the Café will require very careful consideration given the logistics, so it should be possible to gain credits here.
- Ecologist – Credits are available for the provision of an appropriate and up to date ecological report, with further credits available for taking on board the recommendations for ecological enhancement. Quotations from ecologists are being sought.

3.8.3 A pre assessment estimator is currently in preparation, which will offer further guidance on targeting of credits.

4 Description, Issues and Constraints

4.1 Introduction

4.1.1 This section looks at the key issues and constraints which affect the Caernarfon Castle, as identified through analysis of the information gathered and through on site review and assessment of the point cloud data.

4.2 Site Location

4.2.1 The site is located in the town of Caernarfon, close to the River Seiont at its junction with the Menai Straits on the southwestern side of the Town.

4.2.2 The building forms a focus for the Town, with the Town Walls which project from the building enclosing its historic nucleus.

4.2.3 Castle Square, an important focal point for the town, is located immediately to the east of the Castle.

4.3 Site Operation

4.3.1 The site is open to the public daily from 9:30am until 5:00pm through the autumn, from 10:00am until 4:00pm in the winter (11:00am until 4:00pm on Sundays), 9:30am until 5:00pm during the spring and 9:30am until 6:00pm during the summer.

4.3.2 Admission is chargeable.

4.3.3 The Castle hosts a range of events, from national events like the 'Weeping Window,' (Figure 4) a commemoration of the First World War featuring thousands of ceramic poppies 'weeping' from a window adjacent the North-East Tower and part of a national tour of the sculpture, to day-to-day events and activities including temporary exhibitions, parades, fireworks, theatre, historic re-enactments etc. etc. The site is available for hire by external organisations for such events, although does not hold a wedding licence.

4.3.4 The site does not have a café and the gift shop is modest in size.



Figure 4: 'Weeping Window' First World War commemoration at Caernarfon

4.4 Ownership

4.4.1 It is understood that the building is held in guardianship by Cadw on behalf of the people of Wales.

4.5 Heritage Status

4.5.1 The building is within a World Heritage Site, is a Scheduled Ancient Monument, Grade I Listed and within a Conservation Area.

4.5.2 This status makes Caernarfon Castle amongst a handful of the most historically significant buildings in the World.

4.5.3 Given the above, a Heritage Impact Assessment is being compiled separately in line with ICOMOS and UNESCO guidance, to assess the impact of the proposals on the Outstanding Universal Value of the site as described in the Statement of Outstanding Universal Value dated 20th May 2014.

4.6 Key Views

4.6.1 The assessment of the impact of the proposed development on key views is critical given how they are described in the Draft Management Plan 2016 – 2026, issued October 2016. These views are illustrated at Figure 5.



Figure 5: Key Views as illustrated in the Draft Management Plan 2016 - 2026

4.6.2 The views noted within the Draft Management Plan are:

- Outward facing views from the Eagle Tower.
- Views towards and beyond the Castle from Twthill.

4.6.3 It has been noted that the Draft Management Plan sought to identify key views for the purposes of control of development outside of the Castle and as such, they have less relevance to these proposals.

4.6.4 It is therefore the case that inward facing views from vantage points around and external to the Castle are important and are to be assessed, as well as views from vantage points such as the Caernarfon Watchtower on the opposite side of the River Seiont.

4.6.5 Internal views are to be assessed from all heights, from the ground up to the high point of the Eagle Tower.

4.6.6 The key view identified from Twthill towards the Castle is illustrated at Figure 6. The proposed development is highly unlikely to be visible from this point.



Figure 6: View of Caernarfon Castle from Twthill.

4.6.7 With respect to the Eagle Tower, the southwestern of the upper towers is accessible to the public. The south-eastern tower almost entirely obscures views of the Kings Gate from this point. The Kings Tower is however entirely visible from the lower part of the Eagle Tower (Figure 7) and given the significance of this Tower and its prominence as part of the visitor experience, assessing views from this point and ensuring that any impact is appropriate, is a key part of the heritage impact assessment.



Figure 7: View of the Kings Gate from the Eagle Tower

4.6.8 Views from other key vantage points shall also be assessed.

4.6.9 With respect to views from key vantage points outside of the Castle itself, the upper part of the curtain wall to the Kings Tower acts to obscure the proposed development site from the town, apart from potential glimpses through Castle windows and arrow loops, which will be assessed.

4.6.10 Views from key vantage points to the south and southwest, such as the Watchtower, shall be assessed.

4.7 Collections

4.7.1 The extent and nature of the collection associated with Caernarfon Castle has not been understood at this stage, but shall be developed as the project progresses from Feasibility Study into more detailed design, to ensure that the interpretation of the collection as it relates to the Kings Gate development, can be accommodated and co-ordinated as part of the design.

4.8 Visitor Flow

4.8.1 Visitors enter via either steps or a modern ramp (Figure 8) and then through the Kings Gate.

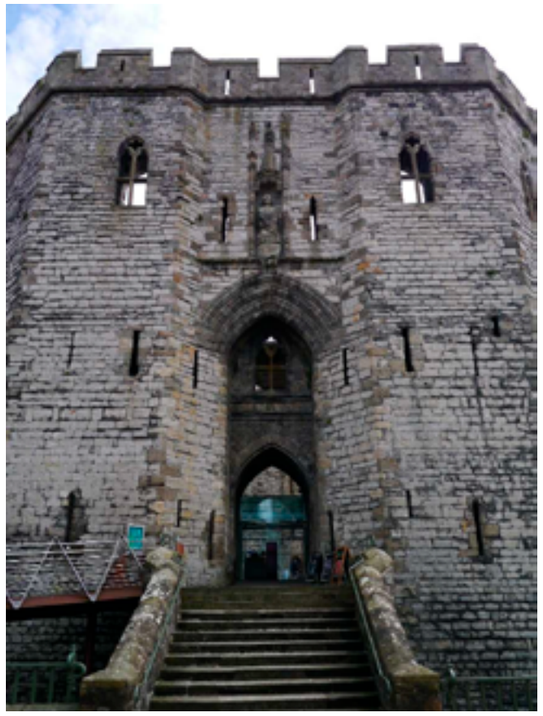


Figure 8: View of Kings Gate, including entrance steps and ramp.

4.8.2 A recently implemented entrance 'porch' and ticketing point (Figure 9) provides the next point in the visitor journey, with a member of staff providing welcome, purchase of tickets and guide books. It is worth noting that doorways leading to the East and West Towers are before the ticketing desk.



Figure 9: Recently implemented 'porch' and ticketing point.

4.8.3 The gift shop is on the right hand side adjacent the ticketing desk, with a pair of glass doors then providing access out into the Castle wards.

4.8.4 The visitor is then at liberty to explore the site as they wish, without there being any prescribed route, with signage and interpretation offering an understanding of the site at differing levels, from simple interpretative panels through to more sophisticated interpretation located in a number of the Towers.

4.8.5 Exit is back through the Kings Gate.

4.9 Accessibility

4.9.1 Improving accessibility is a key driver for the project. The upper parts of the Castle are largely inaccessible to people with restricted mobility and it is considered that this project represents an opportunity to improve that situation.

4.9.2 However, the Castle was designed to make access challenging and as such, tackling accessibility issues is a considerable challenge.

4.9.3 In order to begin addressing that challenge, the diagrams at Figure 10, Figure 11, Figure 12 & Figure 13 identify key physical accessibility constraints including changes in level, steps, narrow doorways, spiral staircases etc.

4.9.4 In general terms, the upper publicly accessible level of the Kings Gate is not accessible from its lower levels, rather it is accessible from staircases within the Well Tower and Granary Tower and then along the wall walks.

4.9.5 Spaces in the East Tower such as the Education Room, are accessed via the staircase to the south of the current gift shop, across the bridge in the West Tower and across the chapel. The travel distance is more than 45m, which is at the limit of any possible interpretation of Approved Document B Volume 2 of the Building Regulations. These regulations are not necessarily directly applicable to Caernarfon Castle, but do provide a useful benchmark for means of escape.

4.9.6 Providing access to wheelchair users to the upper level of the Kings Gate is a key aspiration of the project. Whilst this appears possible, the options assess whether the impact on the building is sufficiently outweighed by the public benefit in its achievement. The width, change in level and horizontal movement through door openings at the entrance level appear to be the critical constraint to wheelchair access and are identified in Section 6.2.

4.9.7 Whilst there may be a possibility of some physical intervention at these critical points, it is unlikely to be to any significant degree.

4.9.8 It is also noted that the size and nature of wheelchairs varies considerably. Smaller models, including those designed for children, are likely to fit through the narrower entrance level door openings, adult wheelchairs, motorised wheelchairs and mobility scooters are less likely.

4.9.9 Should it be possible to achieve broad access to the upper parts of the Kings Gate, it is fundamental that those accessing these areas are able to be safely evacuated in the simplest manner possible.

4.9.10 There is currently no accessible wc provision and the wcs are accessed via steps.

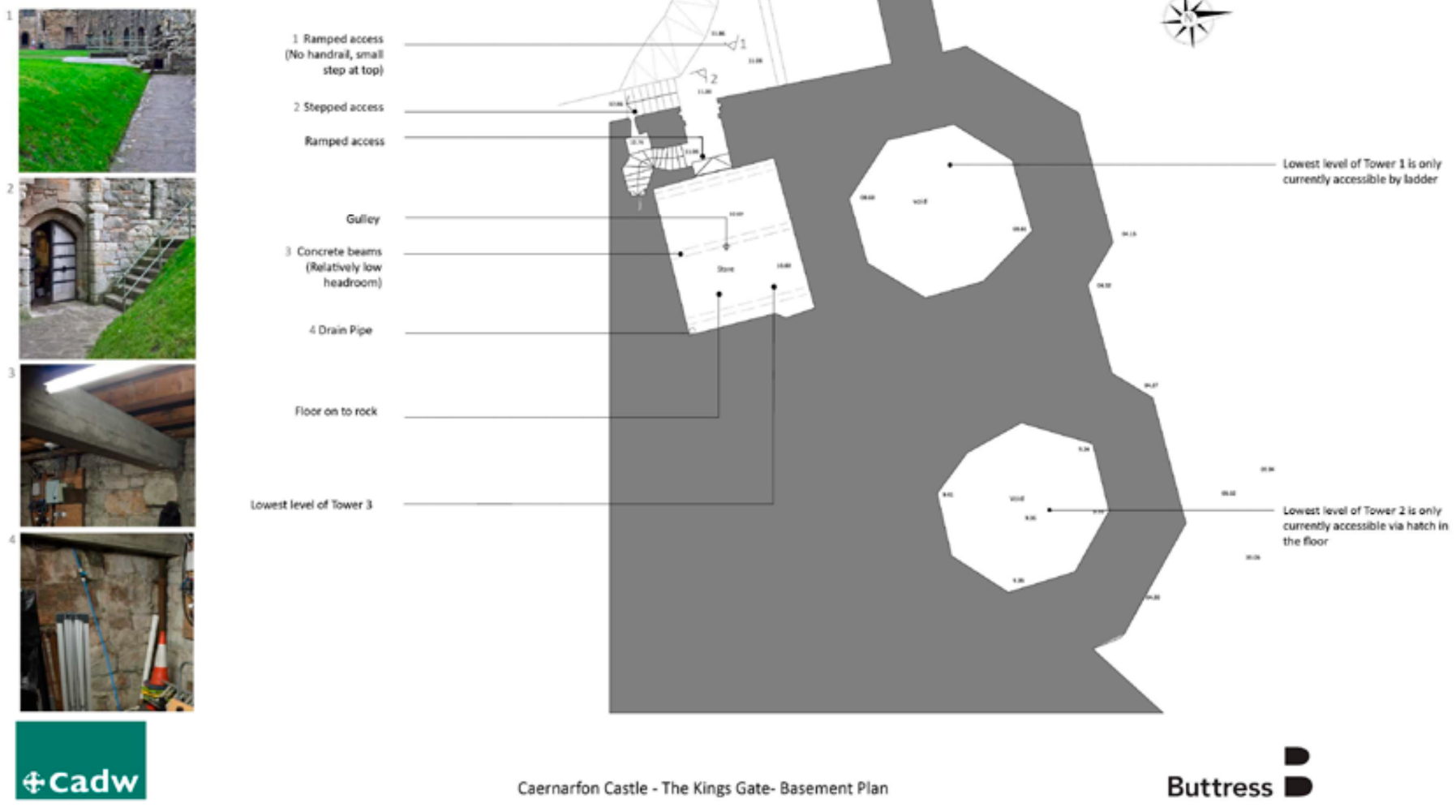


Figure 10: Key Issues Diagram - Basement

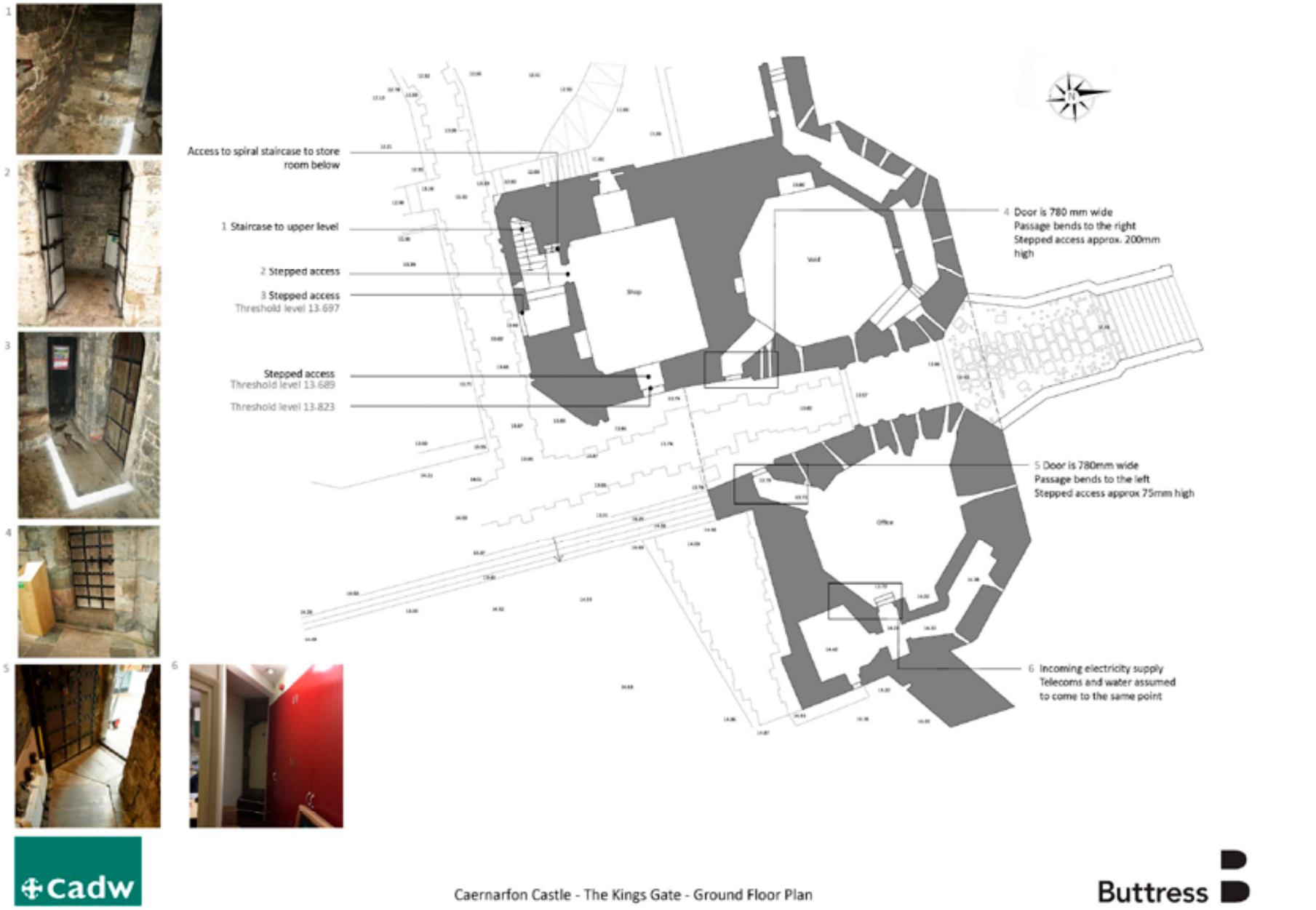


Figure 11: Key Issues Diagram – Ground Floor

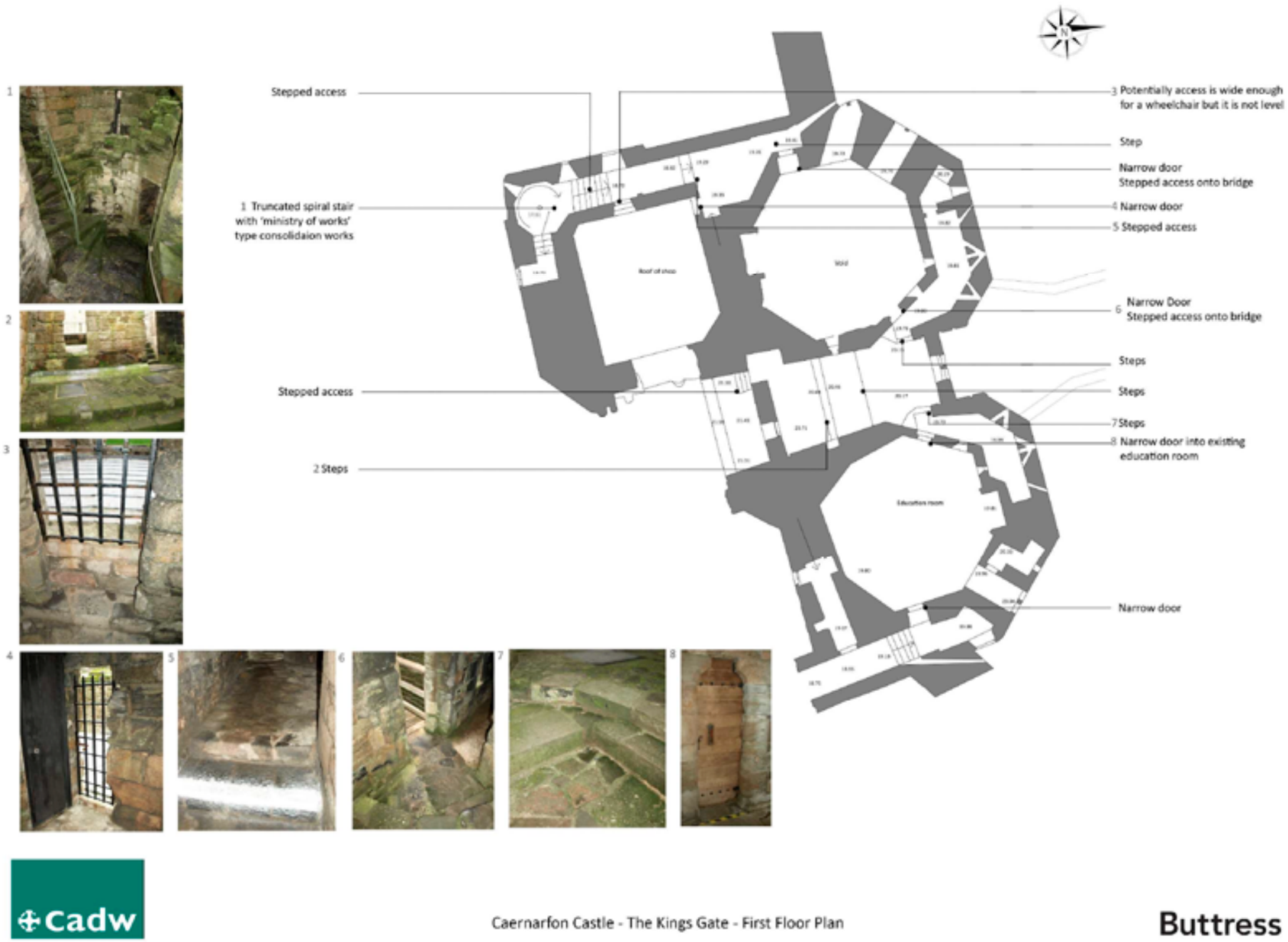


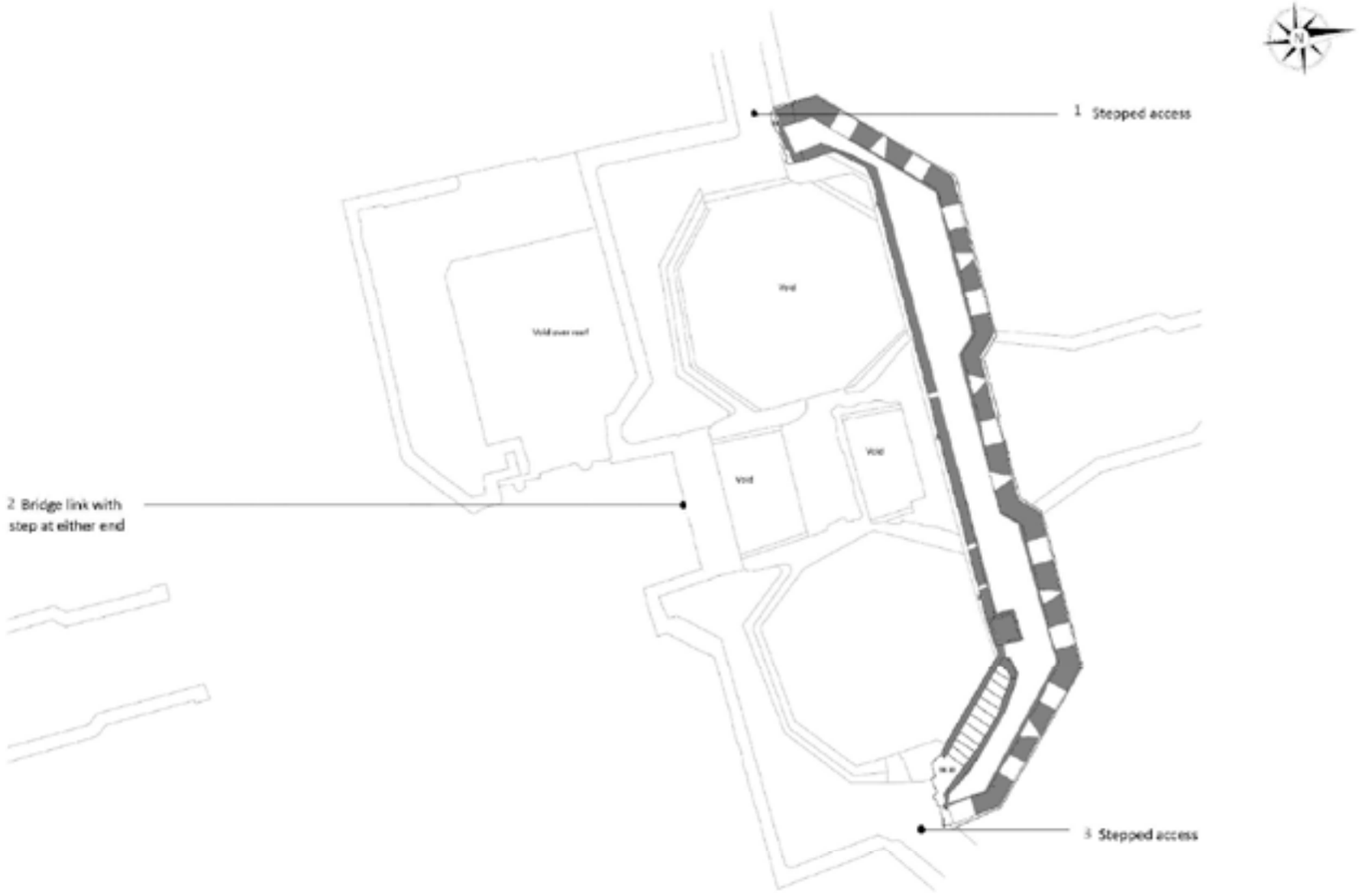
Figure 12: Key Issues Diagram – First Floor







Note: No access from this level to lower levels of Kings Gate



Caernarfon Castle - The Kings Gate - Roof Plan

Figure 13: Key Issues Diagram – Upper Floor

4.11 Budget

4.11.1 The budget noted in the brief is £2.75 million.

4.11.2 It is understood that this is a construction budget exclusive of VAT, professional fees and interpretive elements, but inclusive of catering fit out costs.

4.12 Condition

4.12.1 The most recent Quinquennial Inspection (QI) report has been provided, prepared by Purcell and dated June 2016.

4.12.2 Appendix 01 of this report is focused on the Kings Gate and no issues requiring attention in Year 1 are noted. A small number of issues requiring attention in Year 2 are noted, suggesting that the Kings Gate is currently in a good state of repair. It is anticipated that the scope of works to the Kings Gate will include for condition issues noted within the QI in order to make best use of access equipment and the presence of an appropriately qualified contractor. This is to be assessed and the scope detailed at a later stage in the project.

4.13 Mechanical & Electrical Services

4.13.1 Electricity: The incoming electricity supply to the castle is routed under the steps at the main entrance and terminates in the electricity cupboard in the King's Gate. There is more than adequate spare capacity available for the proposed Kings Gate project.

4.13.2 Telephones: The exact route of the incoming telephone service is not known however it is likely that it follows a similar route to the electricity cable. The service terminates in a BT distribution point in the cupboard at the rear of the Kings Gate (off the corridor opposite the Guides' Office behind the Staff Rest Room). Should any extra lines be required this would need to be arranged as a direct order to BT by CADW.

4.13.3 Water**:** The incoming water main again follows a similar route to the electricity supply. The main runs under the new entrance and is routed through the courtyard to serve the existing toilet facilities adjacent to the Eagle Tower. There is a tee off the main at the King's Gate which serves the sink in the Staff Rest Room. This will need to be used to serve the upgraded facility.

4.13.4 Drainage**:** It is understood that the only drainage at the castle (other than a waste connection from the Staff Rest Room sink which discharges into the moat) serves the existing toilets adjacent the eagle tower. The drainage discharges into a pumping chamber in the moat and is pumped up into the public sewer in the road. It is noted that there is surface water drainage throughout the Castle, including draining from points at high level. How this system works is unclear. Further investigation of the drainage infrastructure on the site, through review of record information, review on site and CCTV survey / opening up works, is required.

4.14 Structural

4.14.1 The walls of the Kings Gate are massive medieval structures of rubble stone. Their anticipated make-up comprises dressed or semi-dressed stone faces either side of a thick rubble core in a lime matrix. Intra-mural passages are a feature in various locations.

4.14.2 The walls step in thickness at floor levels, creating semi-continuous ledges on which previous (and current) floors have their bearings. Other features in the internal face of the walls include former beam pockets and corbels, to support floor and roof beams.

4.14.3 These are massively robust structures, and there are no immediately apparent significant structural defects which would affect the feasibility of the proposals.

4.14.4 The scale of the wall structures is determined by their defensive requirements, not load carrying capacity. Hence, provided that satisfactory bearing can be achieved for new floor and roof structures, there are no concerns regarding the capacity of the walls to sustain the loads from the new proposals.

4.14.5 The existing floor structures in the Kings Gate towers are generally of timber. They are very robust, comprising very large primary beams spanning from wall to wall, in turn supporting stocky joists and floor boards. The construction generally appears to be of oak.

4.14.6 The primary beams in the west tower bear in what appear to be historic beam pockets, and possibly historic corbels. The floor joists generally bear on existing ledges.

4.14.7 The date of these floor constructions is not known, but it seems possible that they date from the 1910 works in preparation for the investiture of the Prince of Wales in 1911.

4.14.8 Exceptions include the ground floor in the current gift shop which comprises primary in situ concrete beams supporting timber joists, and the mezzanine in the east tower, comprising steel columns, and steel beams supporting timber joists.

4.14.9 Little is known of the existing foundations and ground conditions. A search of the British Geological Survey borehole database revealed ground conditions 350 m away from the castle comprising 4.5 m of fill material, 7 m of silt and at 12 m depth a bed of siltstone. The estuarine location makes the presence of soft alluvial layers near the ground surface likely.

4.14.10 There is no obvious evidence of foundation movement of the castle structures, suggesting that they are well-founded, but the depth of these foundations is unknown. Loads exerted on the ground from the massive masonry walls will be high, suggesting that competent strata are to be found at reasonable depth.

4.14.11 The base of the existing moat is around 4.5m below the basement level in the west tower, which strongly suggests that there is likely to be a significant depth of fill (made ground) within the towers.

4.14.12 The recently constructed entrance 'porch' within the main gateway comprises a stainless steel frame fabricated from 'box sections' which appears to have been assembled by site welding, supporting a structural glass enclosure. The bases of the steel columns are concealed by paved finishes. The structure is independent of the surrounding gateway masonry.

4.14.13 Any structural solution for the proposed development may take advantage of the structural approach originally intended.

Alternatively, an independent structural solution may be required. In this case, it is important to note that the floors at the base of each tower may contain archaeology and that at present, the ground conditions are unknown, except for underneath the existing gift shop, which appears to be rock.

4.15 Site Logistics

4.15.1 The site is not directly accessible by vehicle and all access points are restricted in size.

4.15.2 The presence of the new entrance 'porch' within the main gateway arch is a further complication.

4.15.3 Roads to and around the site also have some restrictions which would need to be assessed in detail to determine an appropriate approach to implementation of the works.

4.15.4 One possible approach would be to consider the use of a self-erecting tower crane to lift prefabricated components into the towers, which lends itself to the concept design, the feasibility of this is to be assessed in detail.

4.15.5 It is also noted that the irregular nature of the tower voids will limit the size of prefabricated unit that could be lowered in from above.

4.15.6 Site logistics will represent a major challenge.

4.16 Asbestos

4.16.1 An Asbestos Report has been provided, which notes the presence of asbestos within the Kings Gate.

4.16.2 This asbestos is likely to be disturbed as part of any works and as such, budgets are to be allowed for its removal.

4.17 Impact of Potential Works on Site Operations

4.17.1 Given that the Kings Gate is the main entrance to the site, it is inevitable that the proposed works will have a disruptive impact on the operation of the Castle.

4.17.2 The most efficient way of completing the works will be to close the Kings Gate completely, with access for visitors from another point. This has happened in the past and is understood to be manageable.

4.17.3 A phased approach is possible and would limit the level of disruption but increase its duration.

4.17.4 In any event, there will be times where alternative accommodation for the facilities within the Kings Gate will be required, most notably staff accommodation.

4.18 Ecology

4.18.1 An Ecological Statement prepared by TACP in October 2010 has been provided.

4.18.2 It is noted within the report that there is some limited potential for roosting and foraging bats, limited by the uplighting of the Castle walls and the urban nature of the site, along with the potential for breeding birds, although no evidence of bats and little evidence of breeding birds was found at the time of the survey.

4.18.3 An updated survey will be required to form part of a planning application for the proposed development. Surveys can take place at any time of year, although activity surveys, which will be required, can only take place between May and August.

4.18.4 Making enhancements to the ecological potential of a site can provide credits in a BREEAM Assessment.

5 Opportunities

5.1 Introduction

5.1.1 This section sets out the opportunities to address the issues and constraints noted above and which are to be assessed within the options.

5.2 Opportunities for Intervention

5.2.1 The significance of the building means that there are relatively few opportunities for intervention, although there are a number of more modern insertions, such as the floors in each of the south and east towers of the Kings Gate, modern linings, mechanical and electrical services etc. In some cases, the provenance of these items would need to be established before removal could take place, although it is assumed at this stage that whilst some of these elements of fabric will have gained some significance, no modern insertion is sufficiently significant to preclude removal, based on the public benefit of replacement in a more sympathetic manner and to improve the facility and accessibility of the Kings Gate.

5.2.2 There are also areas of 'Ministry of Works' type interventions, where consolidation works have taken place. One example is the spiral staircase to the southwestern corner of the southern tower, which could potentially be extended vertically if the scheme requires it, as the central column of the spiral has been capped using more modern materials, appearing cementicious in nature.

5.2.3 The voids themselves provide an opportunity. Being open from the top, this provides a possible mechanism for delivering materials to site, although noting their irregular nature, this would require careful handling.

5.2.4 The logical next step from this is that prefabrication could be an important tool in implementing the scheme. Careful consideration of the size of each prefabricated unit is required, although it is conceivable, for example, that the floor plates could be delivered in quarters, generating a working platform very quickly, subject to the notes on site logistics in Section 4 of the report.

5.2.5 From a structural point of view, there are numerous ledges and pockets, understood to have been intended for structural use, from which new structural elements could be supported. It is likely that some works would be required to ensure the contact between new and old is appropriate.

6 Initial Options

6.1 Introduction

6.1.1 This section of the report sets out the approach to developing options and describes the initial options.

6.1.2 A total of 6no. options have been set out, which, across the breadth of these options, attempt to capture a wide range of possibilities. As such it may not be that a single option is preferred, rather a combination of component parts from several options is likely to be the best approach.

6.1.3 Given that the initial concept design has been considered as acceptable, the focus to date has been on testing spatial configurations, particularly more challenging elements, such as the position of the lift and WC's.

6.1.4 It should be noted that the level of survey information available to date means that some challenges cannot yet accurately be resolved.

6.1.5 It is intended that this report facilities decision making in the form of a narrowing of the options being taken forward into more detailed design.

6.1.6 That detailed design will follow on from the receipt of the next layer of survey information, expected at the end of December 2016.

6.1.7 Throughout the following pages of the document, reference is made to each individual tower. Naming of these towers follows the convention at Figure 14.

6.1.8 The following sections describe the potential design approaches to accessibility, mechanical and electrical services, drainage and structure, as a preamble to the options and to inform further discussion.

6.1.9 It should also be noted that in order to assess key views, scale and massing are articulated in a 'white card' approach to the proposed development. This is not intended to articulate materiality.

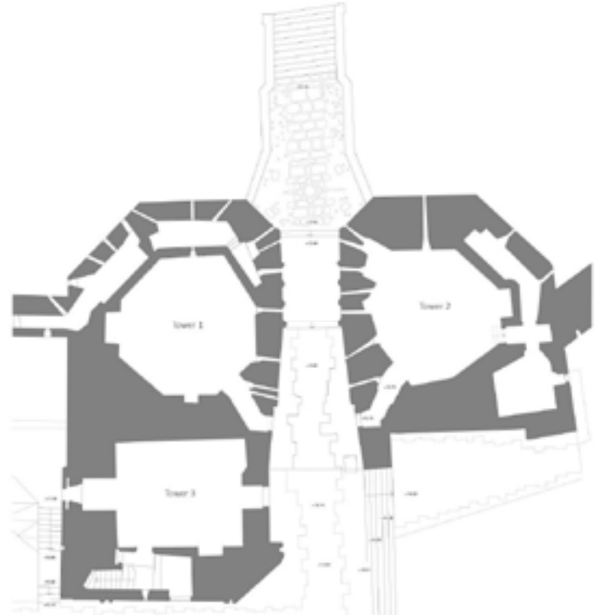


Figure 14: Existing Ground Floor Plan of the Kings Gate

6.2 Accessibility

6.2.1 A key element of all the options is the viability of wheelchair access through the existing openings at ground floor into the towers, as this then facilitates access to the possible lift positions, given that siting the lift outside of the Kings Gate voids is considered non-viable on heritage impact grounds.

6.2.2 The following diagrams begin to explore the tracking of a standard wheelchair through the existing openings of each tower, as the standard wheel chair illustrated below at Figure 15.

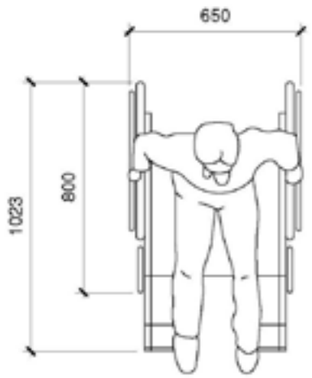


Figure 15: Typical Wheelchair dimensions

6.2.3 Further studies will be required to asses this in more detail including a tracking study to explore accessibility of various wheelchairs and mobility scooters. This will also need to be done at each level and access point along the visitor journey to understand the limitations and restrictions.

6.2.4 It should be noted that each Tower has further access issues to be considered such as changes in level and narrow openings, these have been highlighted in Section 4.9 of the report.

6.2.5 Tower 1 – The diagram at Figure 16 shows that access is viable; however it would require a lot of manoeuvring, to navigate the tight threshold and immediate bend in the corridor.

6.2.6 Although the corridor route through to the tower opens up it is thought the reverse journey from Tower 1 would create similar manoeuvring difficulties as indicated below.

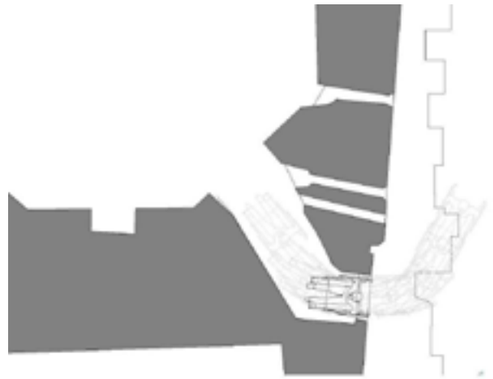


Figure 16: Wheelchair Tracking Diagram for Access to Tower 1

6.2.7 Tower 2 – The diagram at Figure 17 shows that access is challenging for a standard size wheelchair. Further tracking would be required to explore this is more detail to be confident that wheelchair access is a possibility into Tower 2.

6.2.8 Although the corridor route through to the tower opens up it is thought the reverse journey from Tower 2 would create similar manoeuvring difficulties as indicated below, and may even need the wheel chair user to reverse backwards out of this space.



Figure 17: Wheelchair Tracking Diagram for access to Tower 2

6.2.9 Tower 3 – The diagram at Figure 18 shows that wheelchair access is possible with very little manoeuvring.

6.2.10 The reverse journey from Tower 3 also poses no concern regarding wheelchair access.



Figure 18: Wheelchair Tracking Diagram for Access to Tower 3

6.2.11 Overall the tracking study outlined above indicates Tower 2 to be the most accessible followed by Tower 1, with Tower 2 proposing the

most difficulties and challenges, however all seemingly are able to facilitate a degree of wheelchair access.

6.3 Mechanical & Electrical Services - Principles

6.3.1 Whilst the M&E scheme will be developed alongside the next stage in design development, certain principles have been established in terms of how services will be distributed around the proposed scheme.

6.3.2 The key principle is the use of the lift for vertical distribution. A riser will be accommodated alongside the lift shaft, servicing all floors and permitting horizontal distribution at floorplate positions. As the lift will rise adjacent the café kitchen, this riser will permit servicing of the kitchen, particularly where the lift is located in Tower 2, where the main incoming services are located.

6.3.3 With the lift in Tower 1, the 'furniture' approach to the installation of the new works can be utilised to form a services riser, which can then distribute across the floor at the upper level and use the lift as a riser to distribute down through the floors.

6.3.4 Variations on this approach can be utilised for each lift position and can be applied to all services.

6.4 Drainage

6.4.1 Drainage is perhaps the most challenging service to accommodate.

6.4.2 The current understanding of drainage infrastructure is limited and as such, the opportunities for resolving drainage are not well understood, although it is noted that there are numerous surface water drains located in the vicinity and that there is a foul outlet, via a pumping chamber, from the WC's located to the north-west of the Castle, adjacent the Eagle Tower.

6.4.3 In principle, it would appear that there are a small number of possible approaches to drainage:

- Re-use existing surface water infrastructure.
- Use harvested rainwater to flush WC's, attenuating surface water runoff and potentially being useful for BREEAM credits. This approach could allow for any overflow to be minimal and utilise existing surface water infrastructure.
- Foul drainage could operate on a pumped system, being pumped through the Castle grounds to reach the outlet at the existing WCs. This would require considerable excavation through archaeologically sensitive areas.
- Foul drainage could be collected in a package sewage treatment plant located above ground at the base of one of the towers. Waste could be pumped to this location, where its treatment would leave the material sufficiently clean that it could then potentially be discharged into the moat, although regulator approval would be required for this. This piece of equipment is potentially large and would require regular de-sludging, so would need to remain accessible.

6.4.4 Further investigation is required to determine the optimal approach, the preferred location of the WC's will also influence this, as follows:

6.4.5 Within Tower 1:

- There is currently no foul or surface water infrastructure of any sort identifiable within the Tower, nor any means of discharge of drainage from the Tower, without pumping to high level and distributing horizontally to get to Tower 2 or intervening more radically.

6.4.6 Within Tower 2:

- There is surface water drainage from the roof of the education room and drainage from a sink within the staff facilities at ground level, which is understood to drain to the moat.
- This infrastructure could potentially be re-used if WC's were located within Tower 2, although foul effluent would need to be treated and discharged, under licence, into the moat as it does not appear possible that drainage from this location could be readily distributed to any other point on site.

6.4.7 Within Tower 3:

- There is surface water drainage from the roof of the gift shop and a gulley in the floor of the store below, although it is unclear where they discharge to.
- This is the closest point in the Kings Gate to the existing WCs, so it may be possible to pump foul effluent to the outlet by the existing WCs. This would require some disturbance, possible of the door threshold to the existing store door, to ensure the pipework is below ground and then excavation on a route to the existing WCs. This approach would also impact on archaeologically sensitive areas to a depth suitable for drainage (perhaps as much as 600mm).

6.5 Structure

6.5.1 The structural approach to the project revolves around key concepts enshrined in Cadw's 'Conservation Principles,' 2011, and those espoused by SPAB.

- Thoroughly understanding the existing fabric and the significance of its various elements, to enable impacts of interventions to be properly assessed and considered
- Minimising impact on historic fabric – for example by re-using existing beam pockets and ledges where possible to support new floor structures
- Compatibility of materials – new interventions to be considered in the context of the existing fabric, and to work with it, not against it
- Reversibility of interventions – for example using bolted connections, lime mortars and traditional slate packing instead of welding, resins and in situ concrete
- Legibility of insertions – using modern materials where appropriate to clearly delineate new from old

6.5.2 Given the constraints of the site and the existing structures, the other key principle of the structural approach is to consider construction

methodology from the outset. All design decisions need to consider the buildability of the proposals.

6.5.3 A key consideration of the feasibility study is therefore the extent to which elements (both components of the building, and construction plant) can either be broken down into small components for delivery via existing access routes, and then assembled insitu, or pre-fabricated into larger assemblies and craned into place.

6.5.4 New floor structures are anticipated to be of timber, possibly re-using some of the existing floors in the east tower (either the primary beams alone, or also including the floor joists)

6.5.5 Various options for the timber elements are to be considered, including 'engineered' timber solutions as well as more traditional joist and beam options. Integration of services within the floor structures will be a key criterion. Durability of timber elements in proximity to inevitably damp massive historic masonry requires consideration.

6.5.6 It is generally anticipated that existing wall features such as beam pockets and ledges will be used to support the new floor structures wherever possible.

6.5.7 The lift shaft is key structural element in the scheme. As it is of the order of 20m tall, it is anticipated to be a steel framed structure, supported on new foundations. Masonry or reinforced concrete solutions are not regarded as appropriate, as it is desirable to reduce the self-weight of the shaft to limit the impact of its foundations.

6.5.8 A reinforced concrete lift pit will be required at the base of the shaft. Options considered at feasibility include ones which locate the pit above existing basement floor level to reduce archaeological impact.

6.5.9 If the proposed floor structures can be supported off the existing walls as anticipated, the only new foundations likely to be required are to the new lift shaft.

6.5.10 Two conceptual solutions are possible; a raft slab, and mini-piles.

6.5.11 It is recognised that the raft solution could be of less archaeological impact (if it was located in principle at existing basement floor level) than mini-piling. However, given the significant height of the shaft (which makes verticality, and in turn control of differential settlement, a key issue), and the likely significant depth of fill below basement level, at present a mini-piled solution is regarded as more viable.

6.5.12 Access to the lift shaft location for plant to install mini-piles will be an early design consideration. This may have significant bearing on the types of piles which are feasible.

6.5.13 The foundation solution can be progressed in more detail once more is known of the archaeology and ground conditions.

6.7 Option 1

6.7.1 Option 1 explores the opportunities if a lift were to be located within Tower 1.

6.7.2 Three options exploring the possible spatial arrangements for Option 1 have been developed. These have been called option 1a, 1b and 1c and details can be found in the following sections of the report.

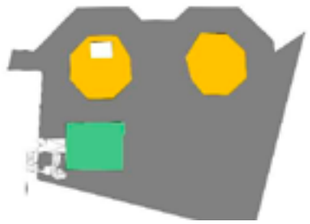
6.7.3 The following diagrams explore the accessibility issues to each part of Kings Gate if the lift was located in Tower 1.

6.7.4 The traffic light colour system indicates the following

- Green – Full accessibility to all uses
- Amber – Access with modifications / Access for ambulant users only
- Red – Restricted access

6.7.5 Further details of the accessibility challenges of Kings Tower as existing can be found in Sections 4.9 & 6.2.

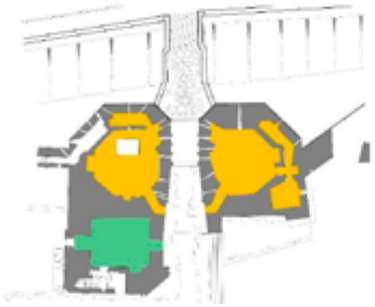
Basement level



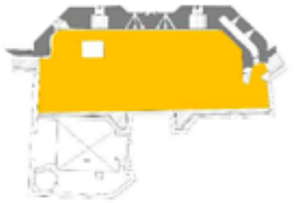
First Floor



Ground Floor



Second Floor



Mezzanine Level



6.7.6 Option 1 – View from Eagle Tower



6.8 Option 1a

6.8.1 Option 1a explores the lift located within the tower to the right as you approach King's Gate from the road, Tower 1.

6.8.2 This option retains many of the existing room functions within the same locations while introducing a café at second floor.

6.8.3 New spaces introduced to the scheme include café, WC and exhibition space.

6.8.4 The office accommodation is proposed to be retained in the current location, albeit rearranged to form an open plan office workspace, with stairs accessing the mezzanine store level above.

6.8.5 Option 1a proposes the introduction of a new viewing platform within Tower 3. The existing layout suggests historically there was access to a floor plate at this level and these accesses points would be retained.

6.8.6 This viewing platform can also act as an external exhibition space.

6.8.7 This option also transforms the current education space into a dual exhibition/education space allowing the space to form part of the visitor experience when not occupied by school groups.

6.8.8 This option explores the possibility of creating a new floor level/raised floor at basement level of Towers 1 and 2, reducing the current floor to ceiling from approximately 5m to 3m. This also creates the opportunity for the lift pit to be located within the void to reduce the need for deep excavation.

6.8.9 The proposed kitchen and café area is large enough for a small hot drinks/cold food counter with sufficient area for 32 covers under shelter with an additional 16 covers externally.

6.8.10 Due to the location of the riser, access via the lift to the café requires the visitor to exit the lift to face the castle wall as opposed to the view.

6.8.11 Below outlines the uses that can be found at each floor.

6.8.12 Basement:

- Visitor WC
- Storage

6.8.13 Ground Floor

- Visitor welcome
- Accessible WC
- Visitor locker facilities
- Gift shop
- Office/Admin facilities

6.8.14 Mezzanine

- Education Room

6.8.15 First Floor

- Viewing deck
- Exhibition space

6.8.16 Second Floor

- Kitchen/Café
- Viewing deck

6.8.17 The viability of this option will need further investigation regarding the initial access through the opening at ground to tower one, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

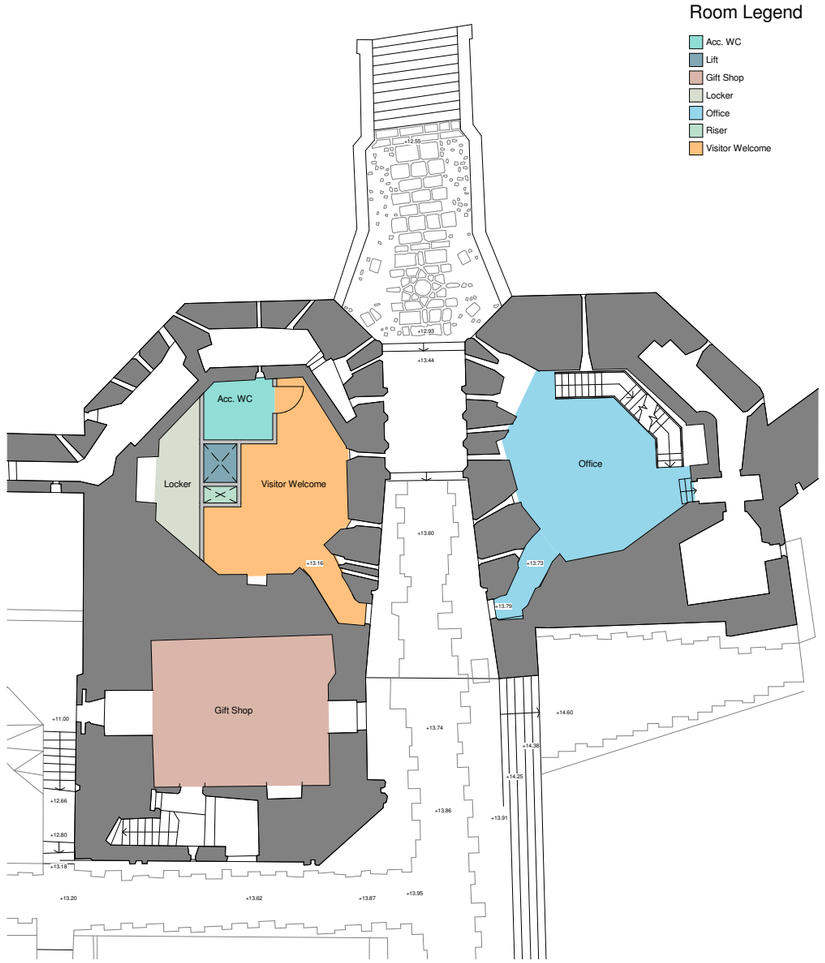
6.8.18 Brief Heritage Impact Overview

The installation of new spaces and room uses will likely require some level of intervention with the historic fabric, including for servicing, though it is not possible to assess the extent at this time. The rearranging of spaces already existing does not have an impact on the heritage significance of the King's Gate. The installation of the new viewing platform will require a level of fabric intervention, however, there is evidence of a floor in existence at this level. This means that the viewing gallery can enhance understanding of the heritage, as well as providing better views. The new floor level/raised basement floor of towers 1 and 2 limits the potential need for intervention with the ground, protxting underground archaeology.

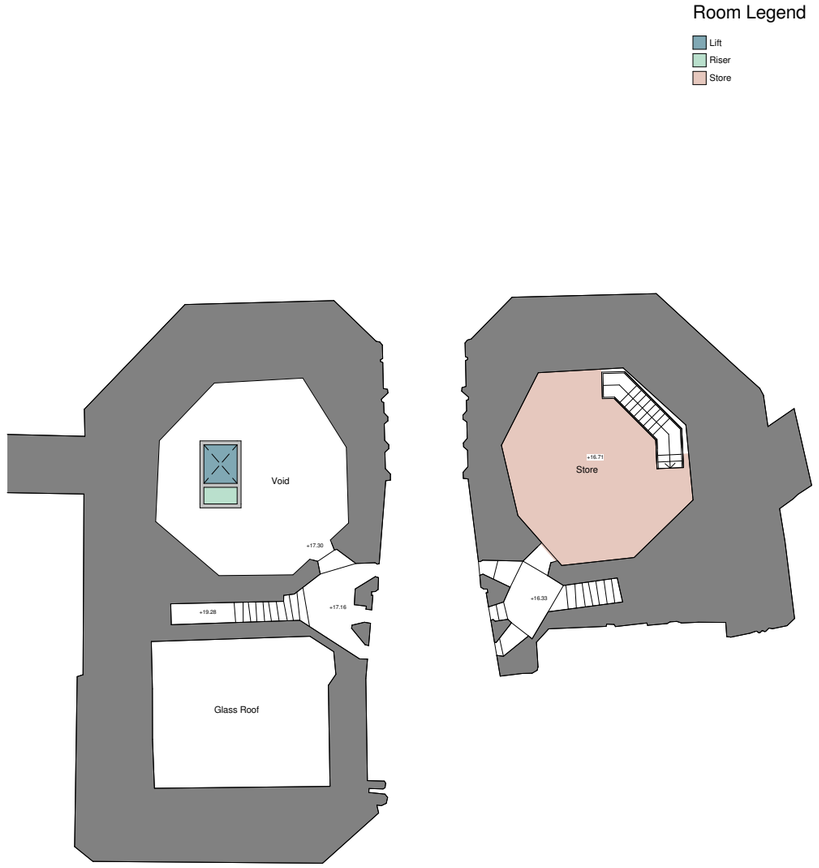
6.8.19 Areas

Basement	
WC	33sqm
Store	72 sqm
Ground Floor	
Accessible WC	6 sqm
Visitor lockers	7sqm
Visitor Welcome	29sqm
Office	34sq
Gift shop	38sqm
Mezzanine Level	
Store	36sqm
First Floor	
Exhibition	61sqm
Viewing Platform	28sqm
Second Floor	
Kitchen	14sqm
Café Seating	55sqm
Viewing Platform	121sqm
Total	
	534sqm

Note:
Do note scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask



1 **Level 0 Option 1a**
1 : 100



2 **Level 0.5 Option 1a**
1 : 100

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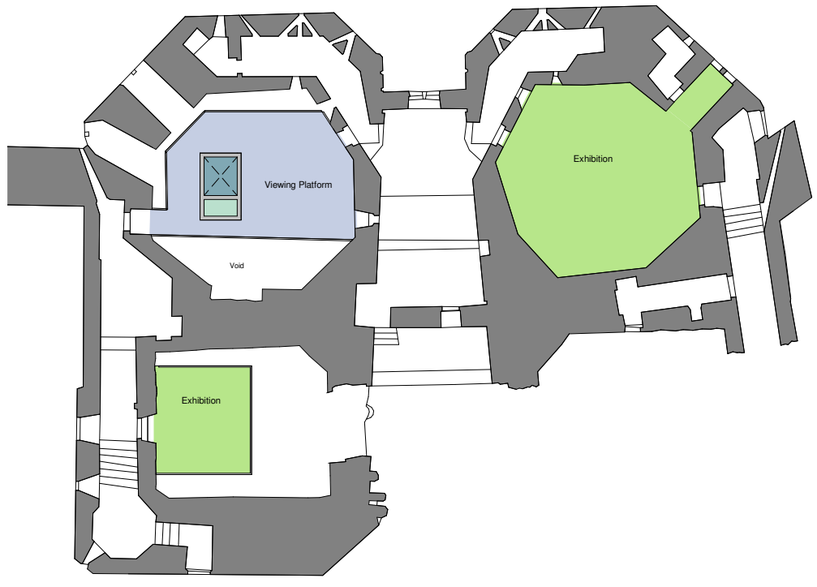
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1a
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**101**	

Note:
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Room Legend

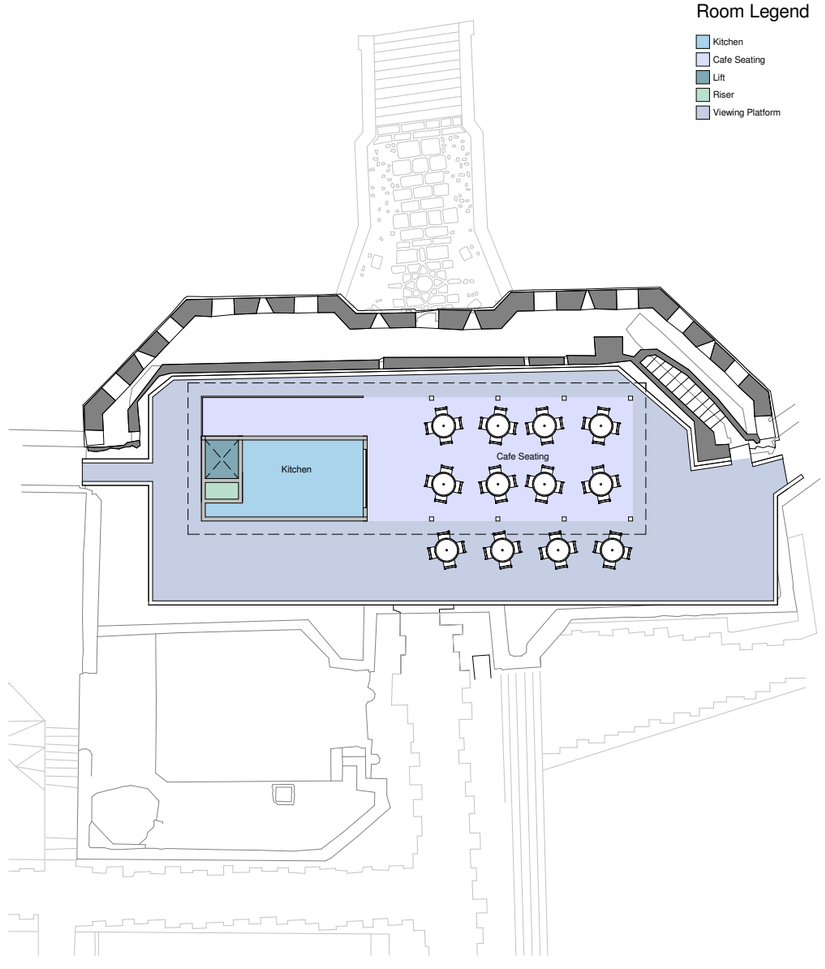
- Lift
- Exhibition
- Riser
- Viewing Platform



1 **Level 1 Option 1a**
1 : 100

Room Legend

- Kitchen
- Cafe Seating
- Lift
- Riser
- Viewing Platform



2 **Level 2 Option 1a**
1 : 100

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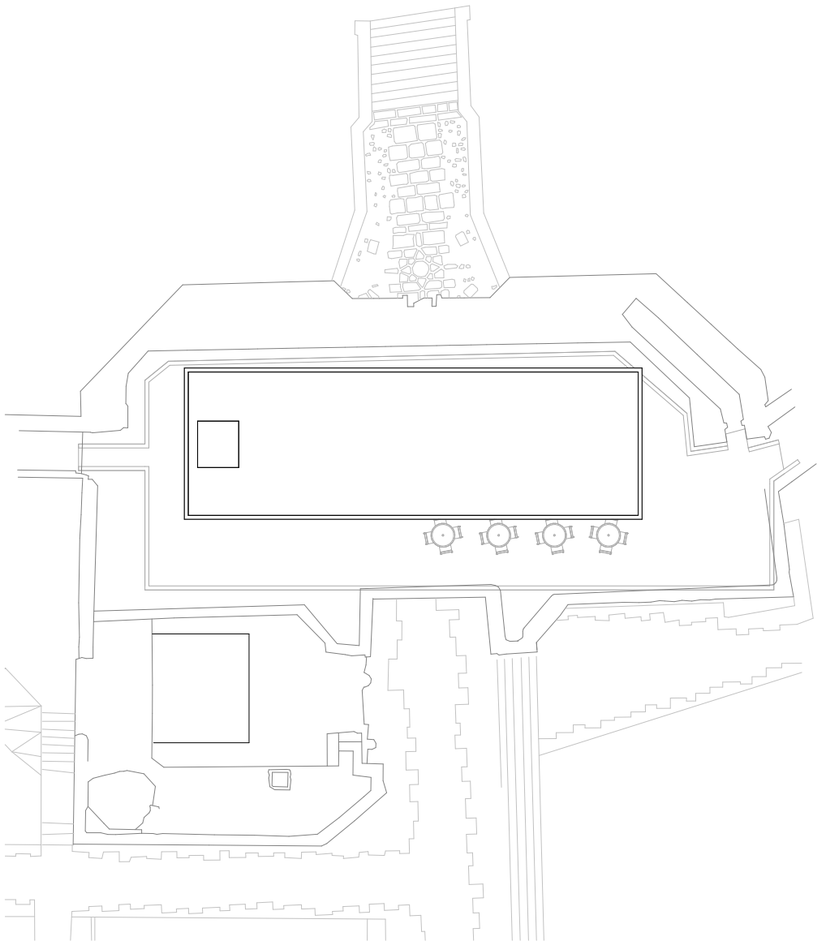
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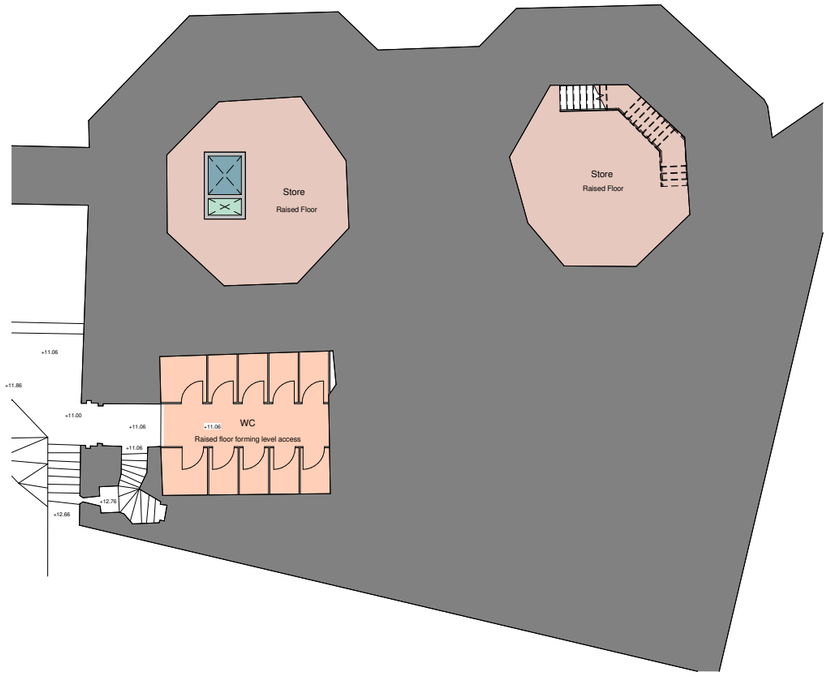
Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1a
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	102	

Note:
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1 Level 3 Option 1a
1 : 100



2 Level B1 Option 1a
1 : 100

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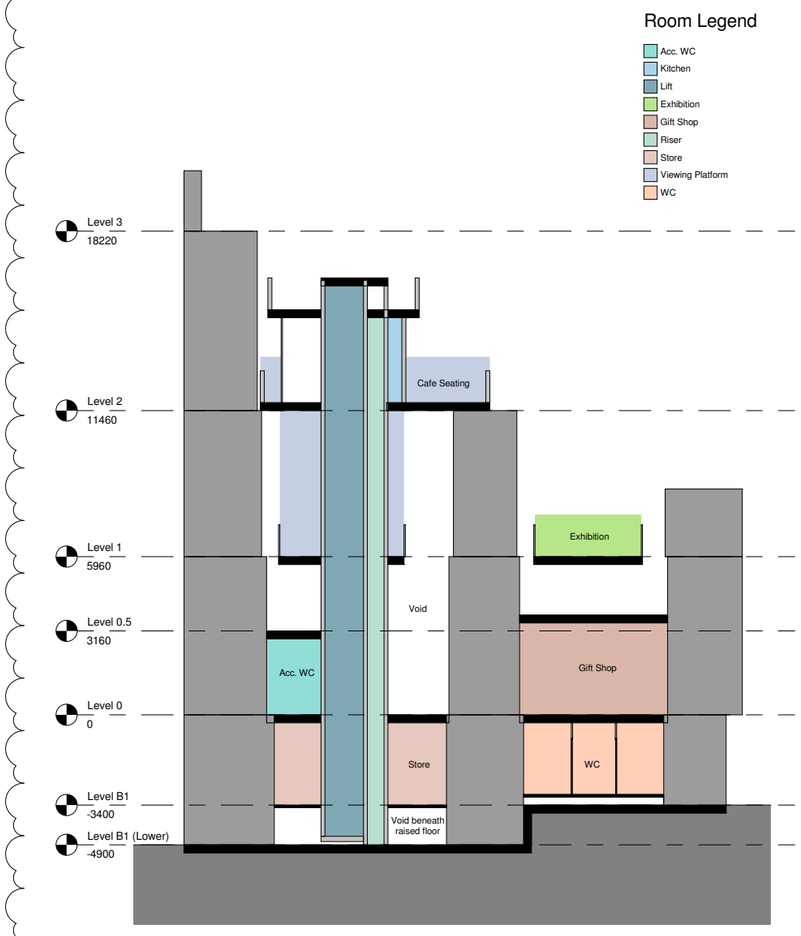
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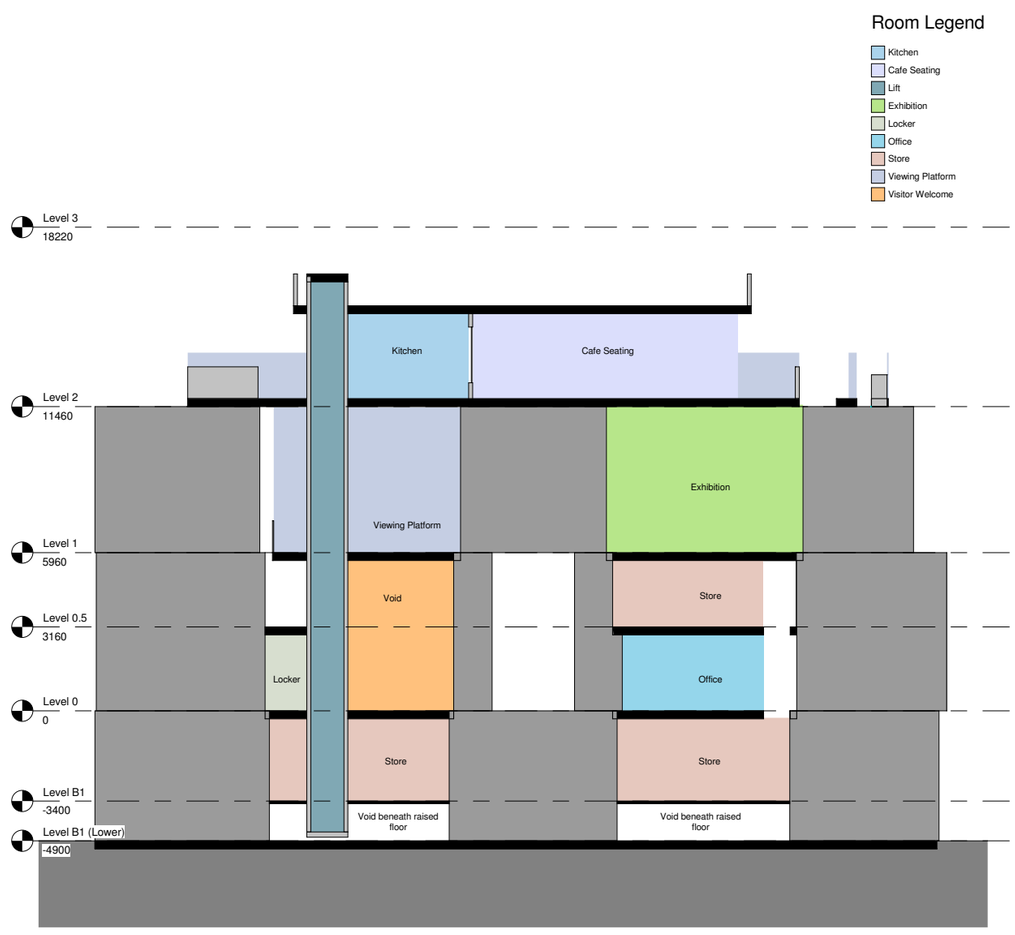
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1a
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Checker	KC
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Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**103**	

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1 **Section 1 - Option 1a**
1 : 100



2 **Section 2 - Option 1a**
1 : 100

Rev	Date	Intls	Details
A	01.12.2016	KC	Spatial planning ammended to incorporate inital comments

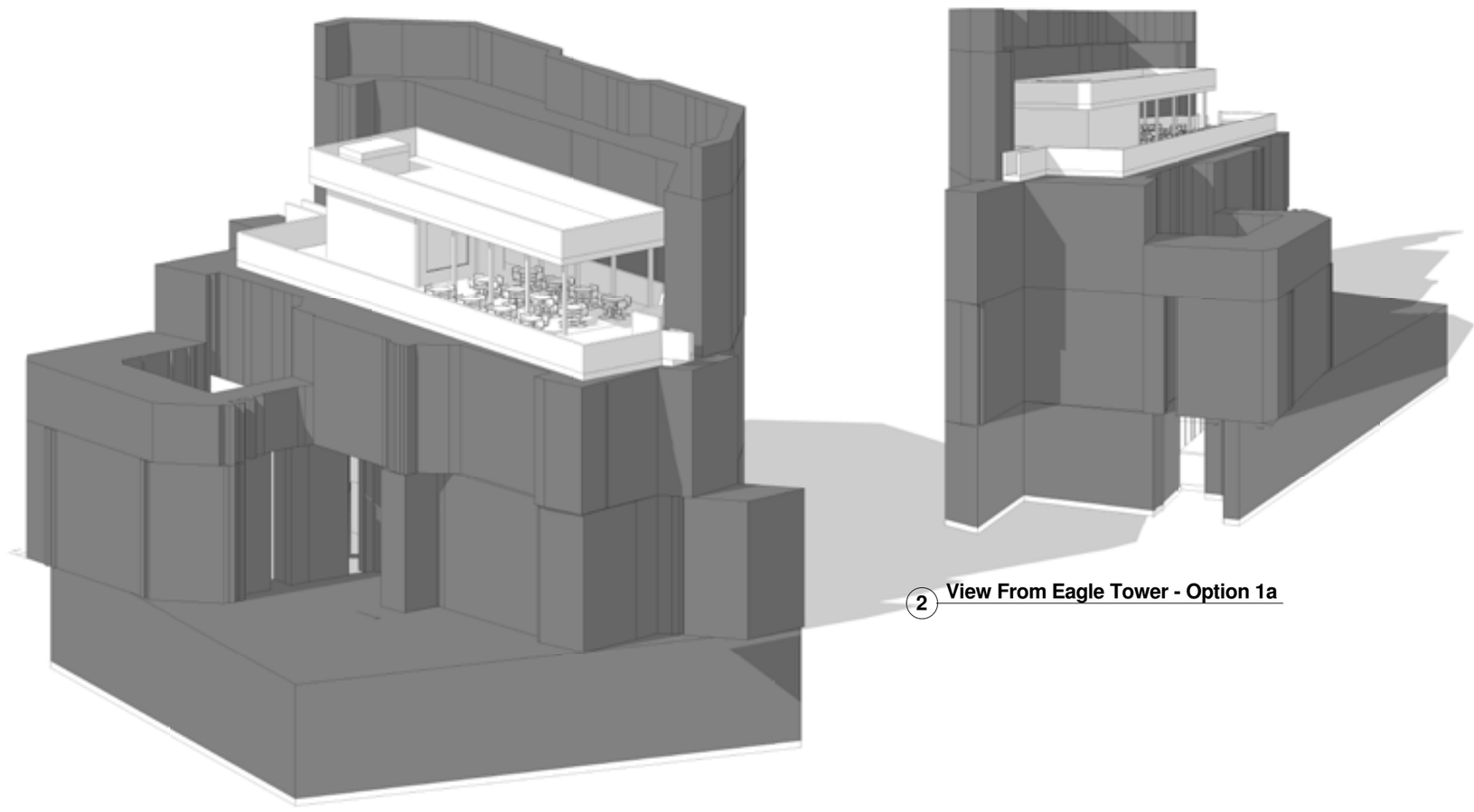
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Drawing ref	Option 1a
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Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	104	A

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1 Option 1a

2 View From Eagle Tower - Option 1a

Option 1a - Total Areas	
Name	Area
Acc. WC	6 m²
Cafe Seating	55 m²
Exhibition	61 m²
Gift Shop	38 m²
Kitchen	14 m²
Locker	7 m²
Office	35 m²
Store	107 m²
Viewing Platform	149 m²
Visitor Welcome	29 m²
WC	33 m²
Grand total	534 m²

Rev Date Intls Details

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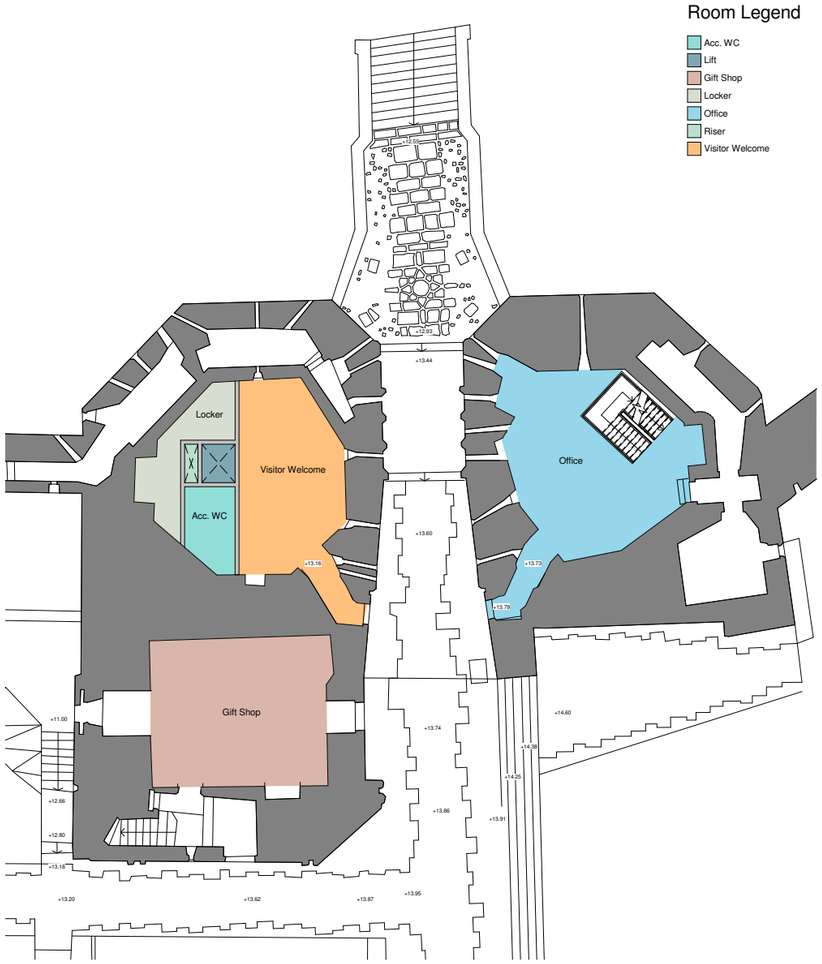
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Client CADW
Location Caernarfon, Wales

Drawing ref Option 1a

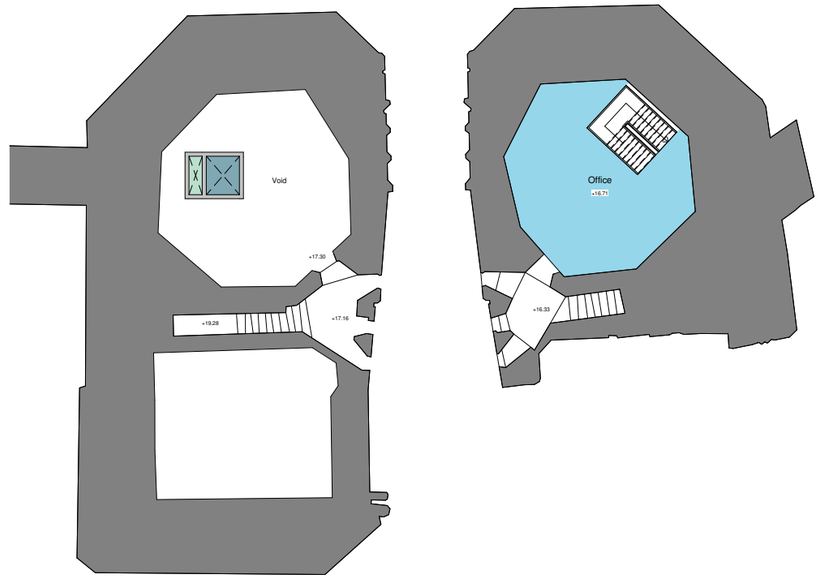
Date
Checker KC
Scale
Orig Paper Size A1
Status DRAFT

Drawing ref	Job No	Drawing No	Revision
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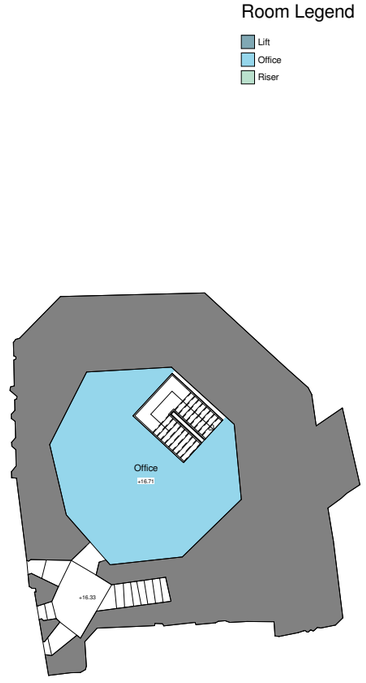
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1 **Level 0 Option 1b**
1 : 100



2 **Level 0.5 Option 1b**
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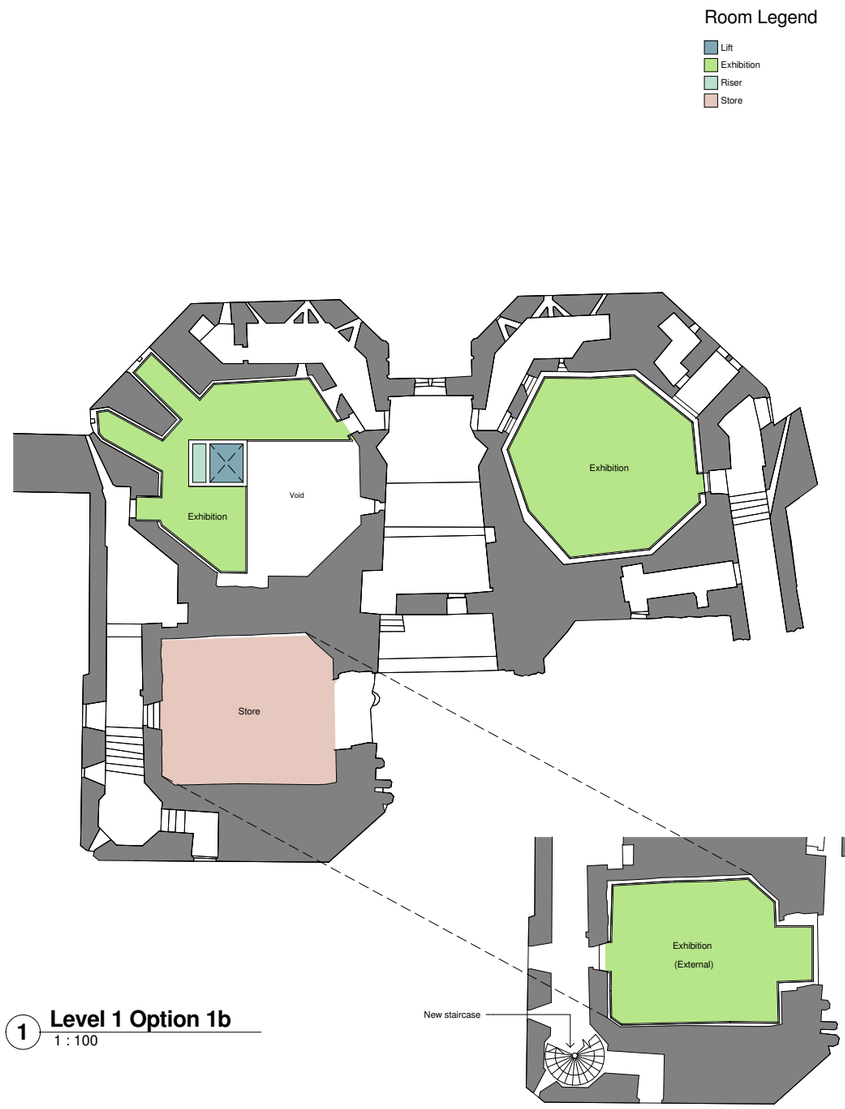
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b

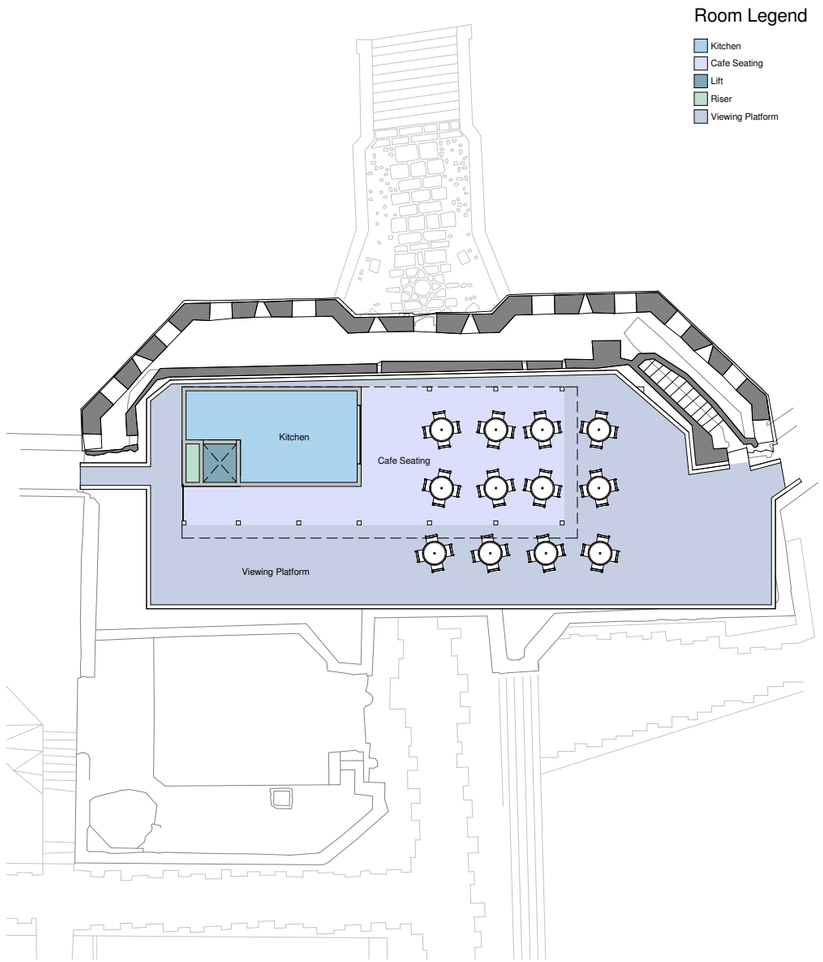
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Drawing ref	Job No	Drawing No	Revision
	8307	106	

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1 **Level 1 Option 1b**
1 : 100



2 **Level 2 Option 1b**
1 : 100

3 **Level 1.5 Option 1b**
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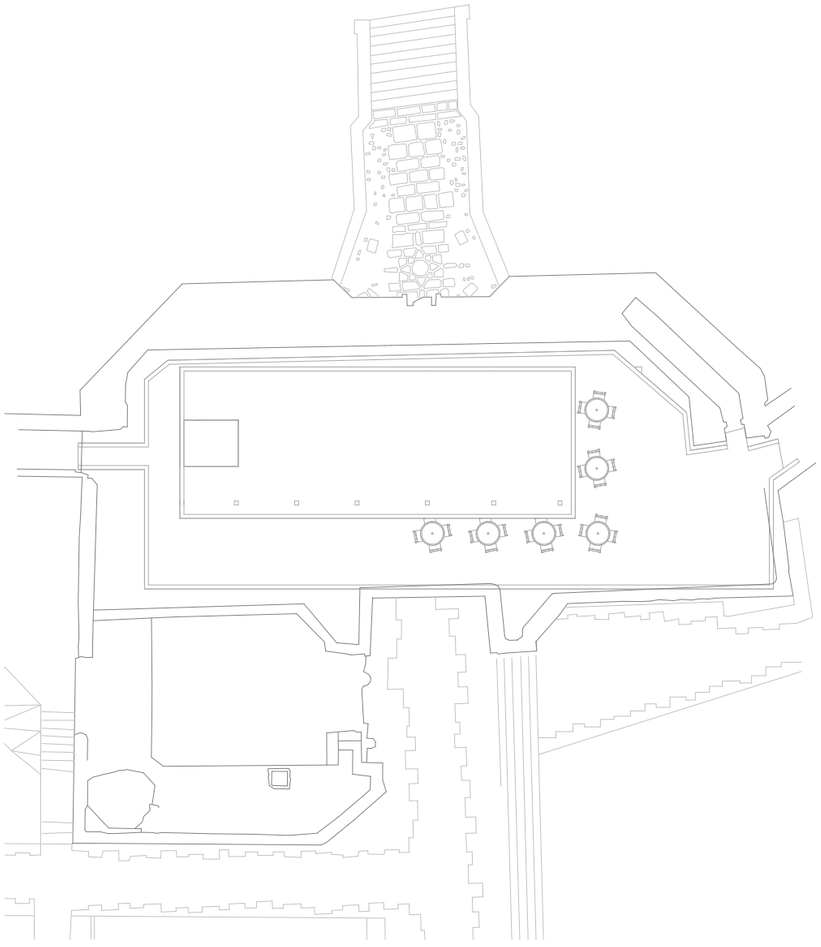
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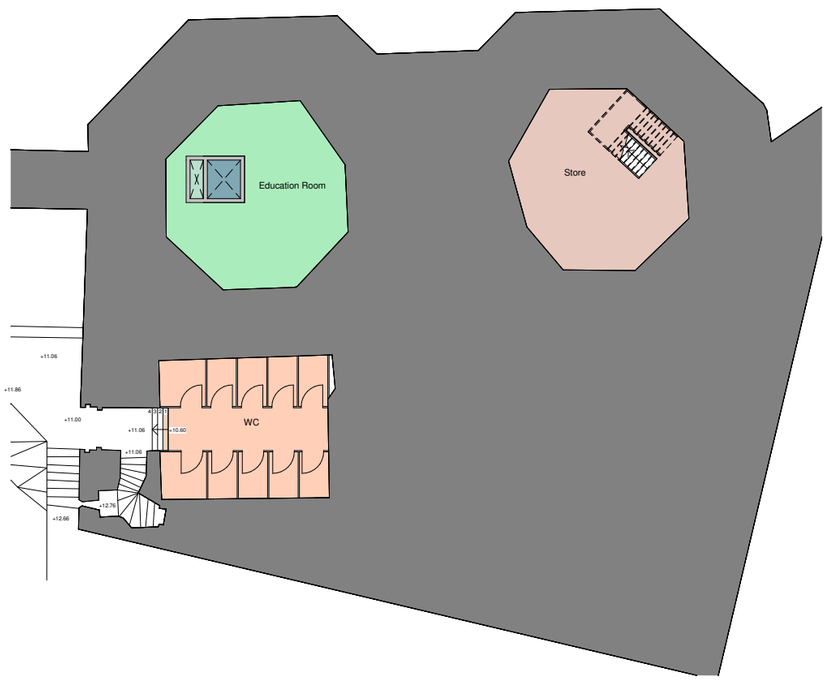
Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	107	

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1 Level 3 Option 1b
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2 Level B1 (Lower) Option 1b
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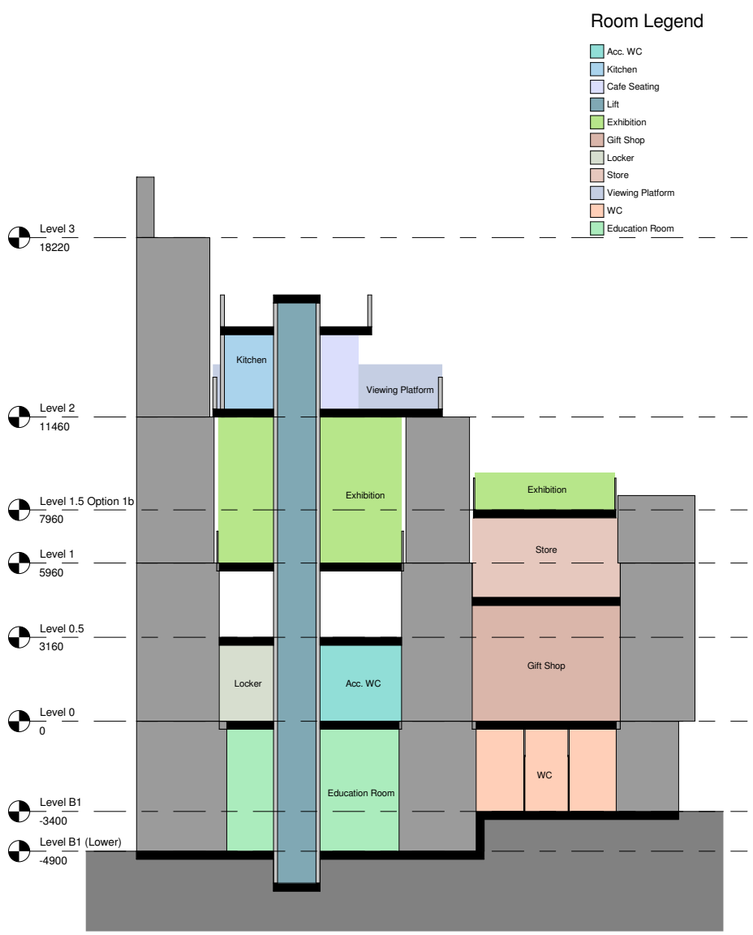
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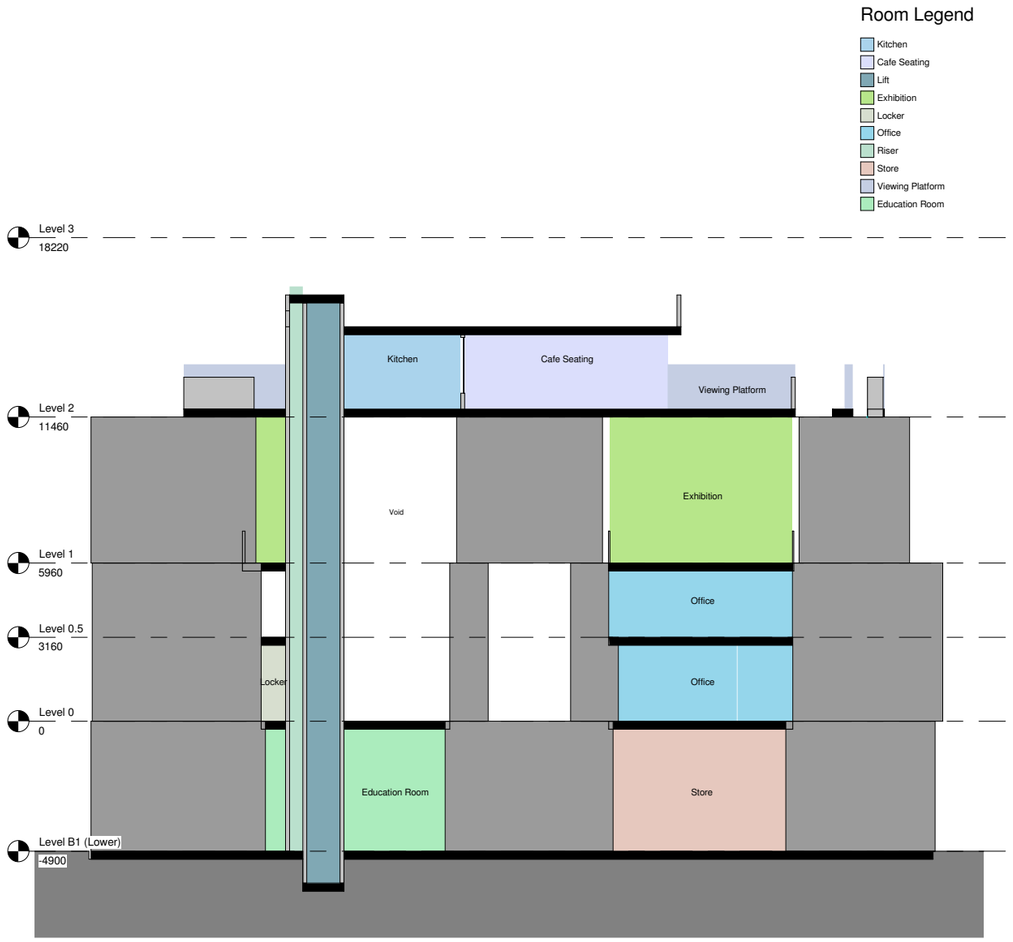
Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b

Date		**Scale**	1 : 100
Checker	KC	**Orig Paper Size**	A1
		Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	108	



1 **Section 1 - Option 1b**
1 : 100



2 **Section 2 - Option 1b**
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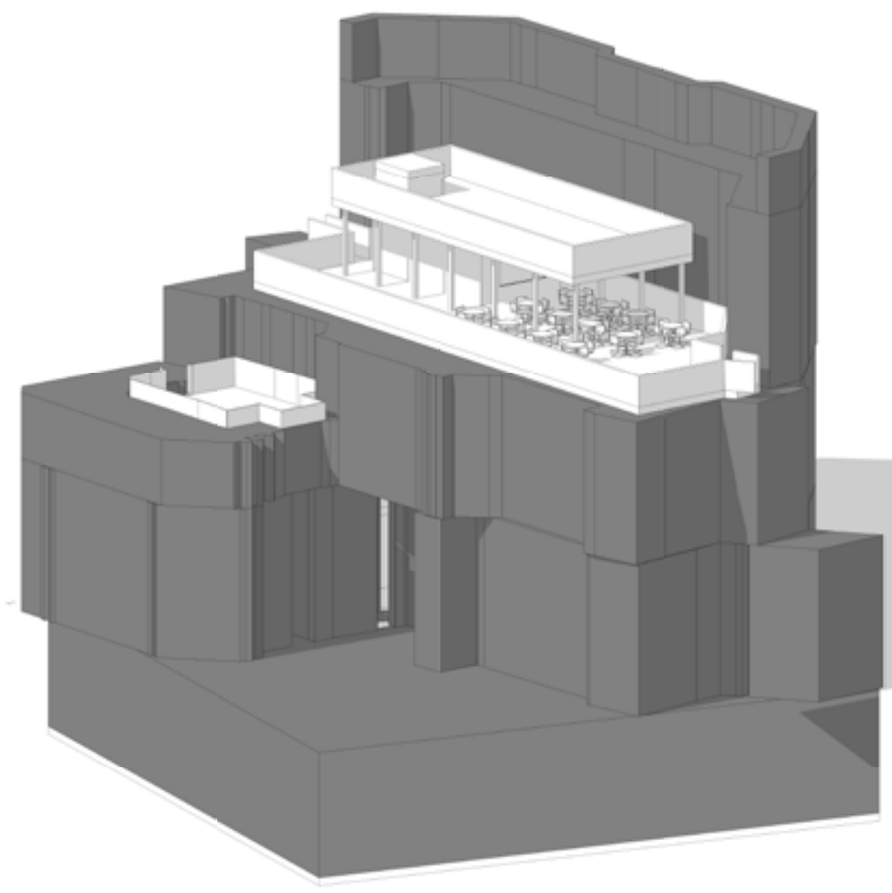
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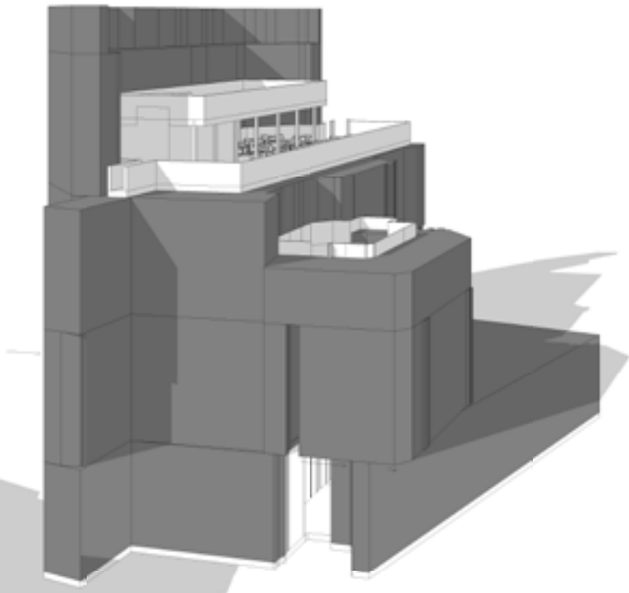
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	109	

Note:
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Dimensions are to be checked on site.
If in doubt please ask



1 **Option 1b**



2 **View From Eagle Tower - Option 1b**

Option 1b - Total Areas	
Name	Area
Acc. WC	6 m²
Cafe Seating	49 m²
Education Room	35 m²
Exhibition	100 m²
Gift Shop	38 m²
Kitchen	19 m²
Locker	9 m²
Office	74 m²
Store	74 m²
Viewing Platform	122 m²
Visitor Welcome	29 m²
WC	33 m²
Grand total	588 m²

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Client CADW
Location Caernarfon, Wales

Drawing ref Option 1b

Date
Checker KC
Scale
Orig Paper Size A1
Status DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	110	

6.10 Option 1c

6.10.1 Option 1c explores the lift located within the tower to the right as you approach King's Gate from the road, Tower 1.

6.10.2 This option relocates the admin/staff accommodation to the mezzanine level opening up the ground floor to visitors.

6.10.3 A primary difference to note within this option is the addition of an escape stair running along side the lift in Tower 1, and providing an additional means of access throughout the building.

6.10.4 Options are to be explored regarding the location of this additional stair if agreed to be a suitable requirement of the scheme.

6.10.5 The ground floor is occupied by visitor welcome, exhibition space and gift shop, with visitors WCs located within the basement levels of Towers 1 and 3.

6.10.6 A stair within Tower 2 and ground floor is used to access a store within the basement and office accomodation at mezzanine level.

6.10.7 The education space has been relocated to a new mezzanine level within Tower 1. Accessible via the lift and stair access.

6.10.8 Visitor exhibition space can be found at first floor of Towers 1 and 2.

6.10.9 The proposed kitchen and café area is large enough for a small hot drinks/cold/preprepared food counter with sufficient area for 28 covers under shelter with an additional area externally to accommodate further covers.

6.10.10 The position of the lift within this option opens within the kitchen/Café area directing the visitor pass the food/drinks offer before exiting to the viewing platform.

6.10.11 Below outlines the uses that can be found at each floor.

6.10.12 Basement:

- Visitor WC
- Accessible WC
- Visitor lockers
- Storage

6.10.13 Ground Floor:

- Visitor welcome
- Gift shop
- Exhibition space

6.10.14 Mezzanine:

- Education Room
- Office/Admin facilities

6.10.15 First Floor:

- Exhibition space

6.10.16 Second Floor:

- Kitchen/Café
- Viewing deck

6.10.17 The viability of this option will need further investigation regarding the initial access through the opening at ground to tower one, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

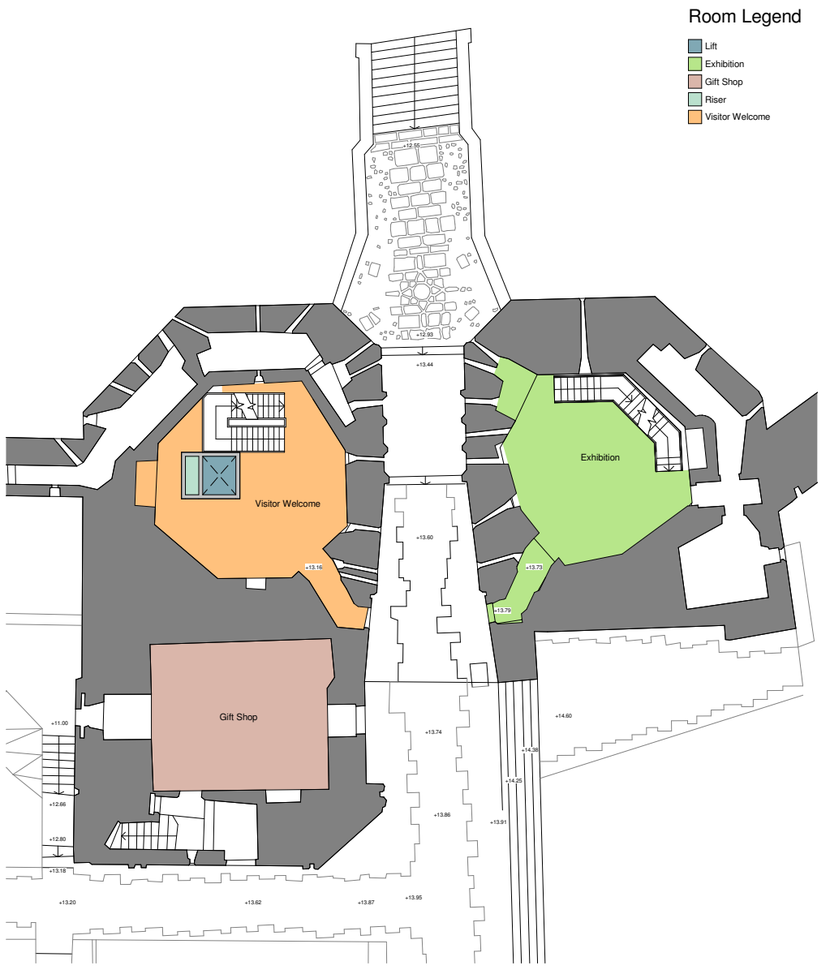
6.10.18 Brief Heritage Impact Overview

The extent of fabric interventions required to meet the proposls of Option 1C are unclear at this stage of development. Further analysis regarding the location of the staircase etc is required.

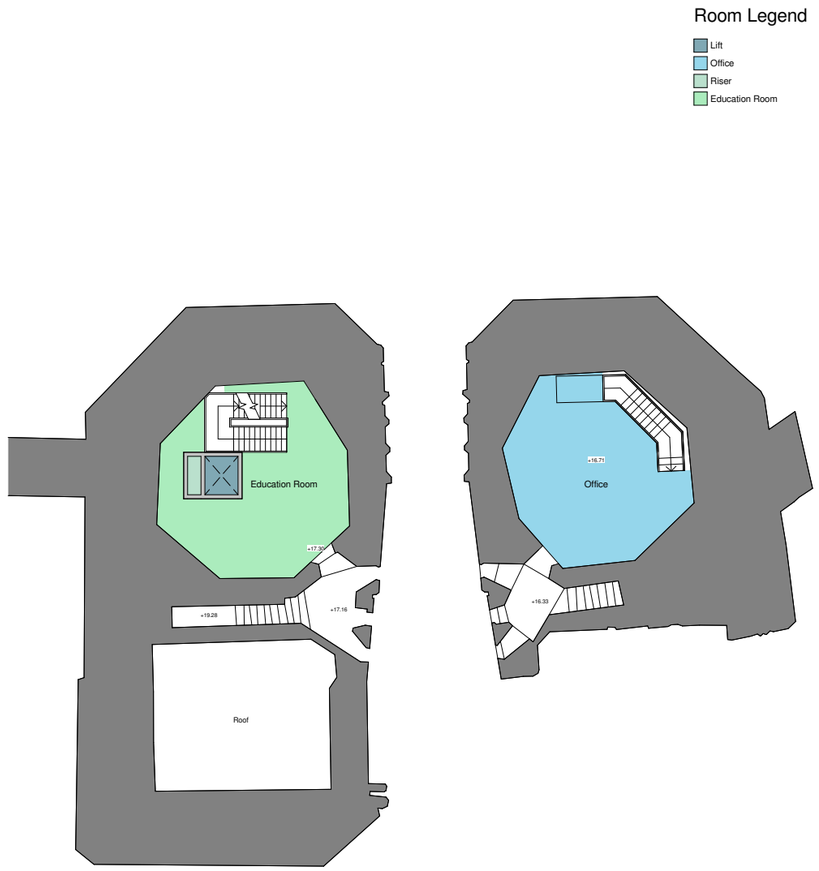
6.10.19 Areas

Basement	
Accessible WC	6sqm
Visitor lockers	3sqm
Circulation	16sqm
WC	34sqm
Store	36sqm
Ground Floor	
Visitor welcome	37sqm
Exhibition	37sqm
Gift shop	38sqm
Mezzanine Level	
Office	35sqm
Education space	33sqm
First Floor	
Exhibition	77sqm
Second Floor	
Kitchen	20sqm
Café Seating	60sqm
Viewing Platform	95sqm
Escape Stair	14sqm
Total	
	549sqm

Note:
Do note scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask



1 **Level 0 Option 1c**
1 : 100



2 **Level 0.5 Option 1c**
1 : 100

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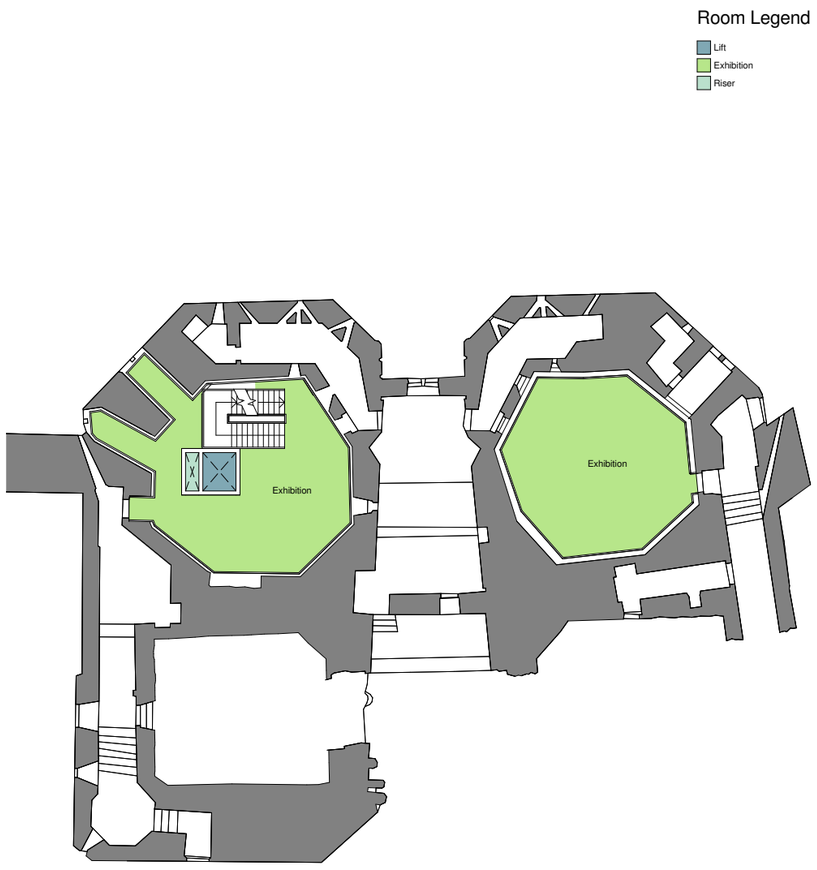
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1c

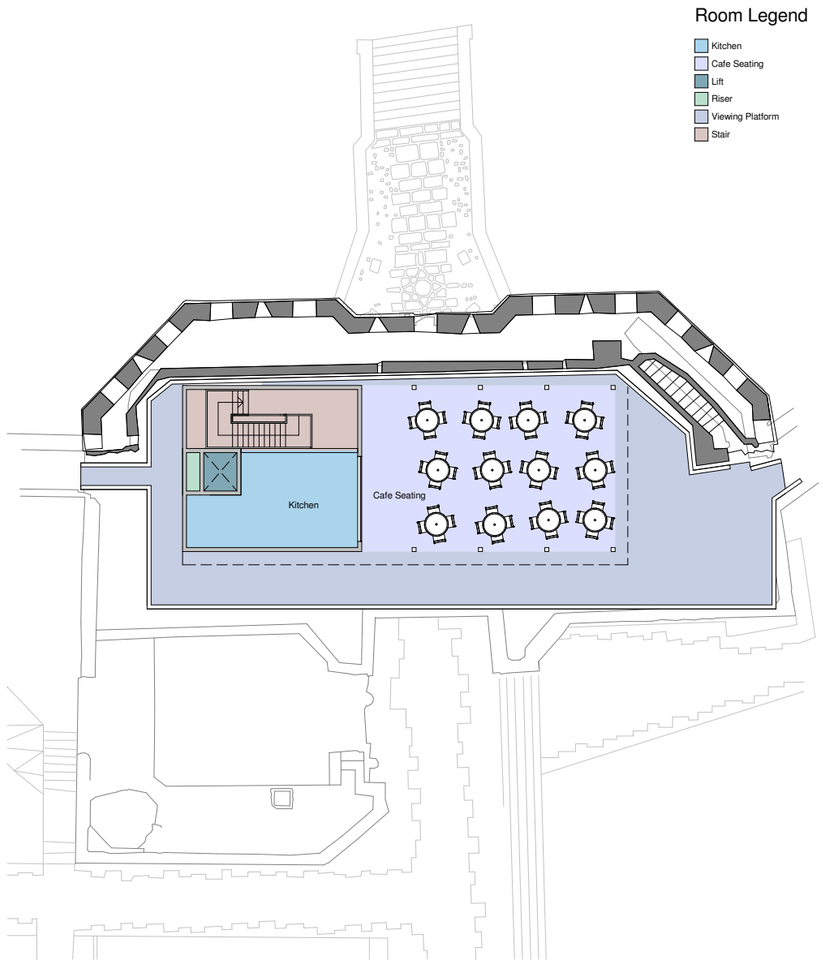
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Checker	KC	**Orig Paper Size**	A1
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Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**111**	

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1 Level 1 Option 1c
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2 Level 2 Option 1c
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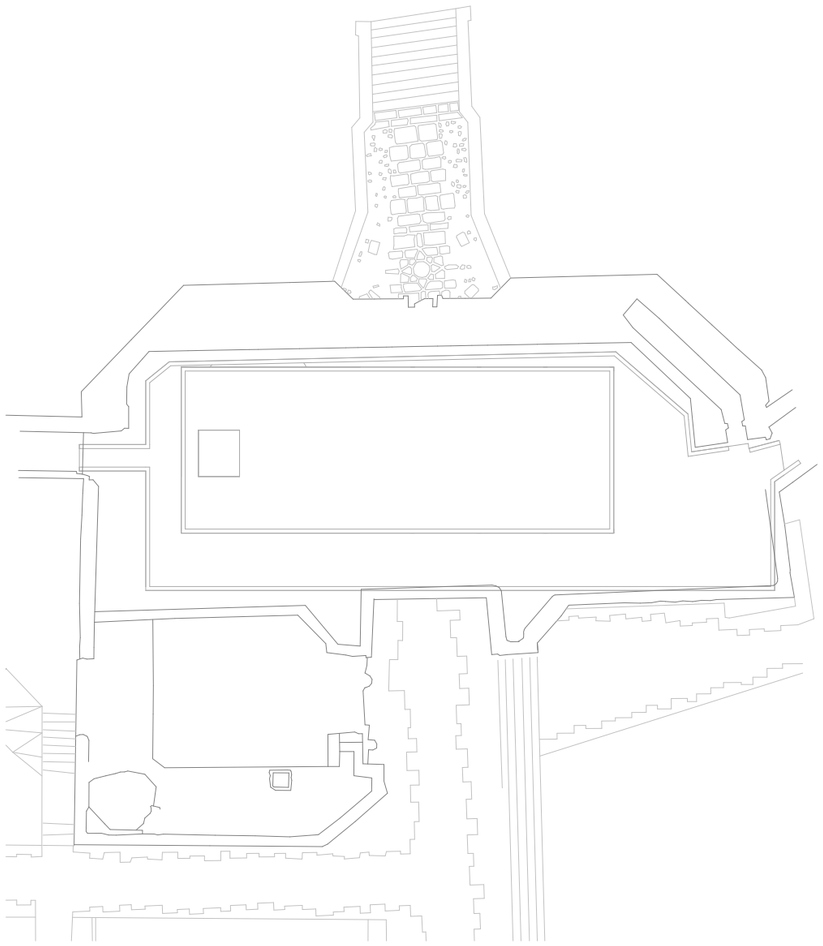
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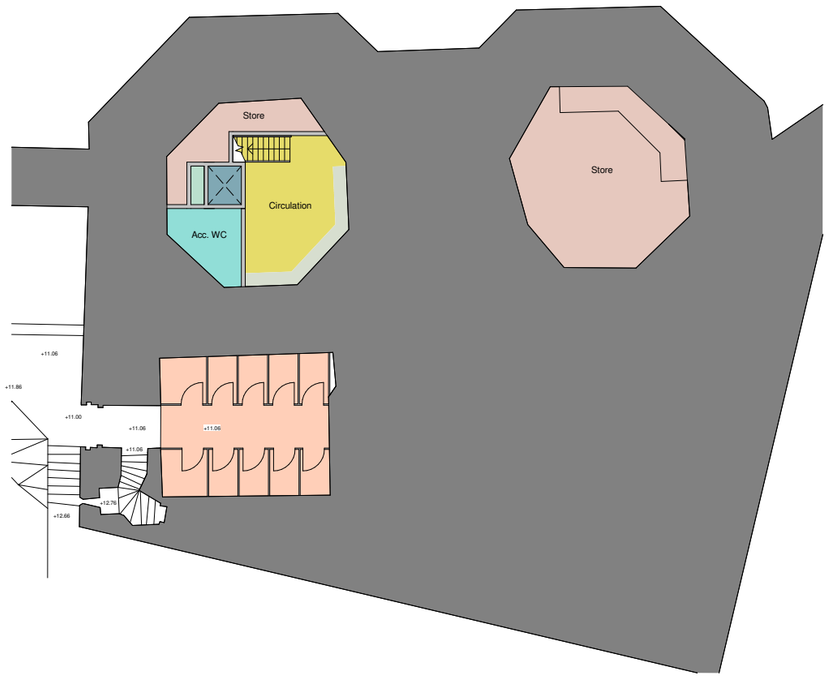
Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1c
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**112**	

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1 **Level 3 Option 1c**
1 : 100



2 **Level B1 Option 1c**
1 : 100

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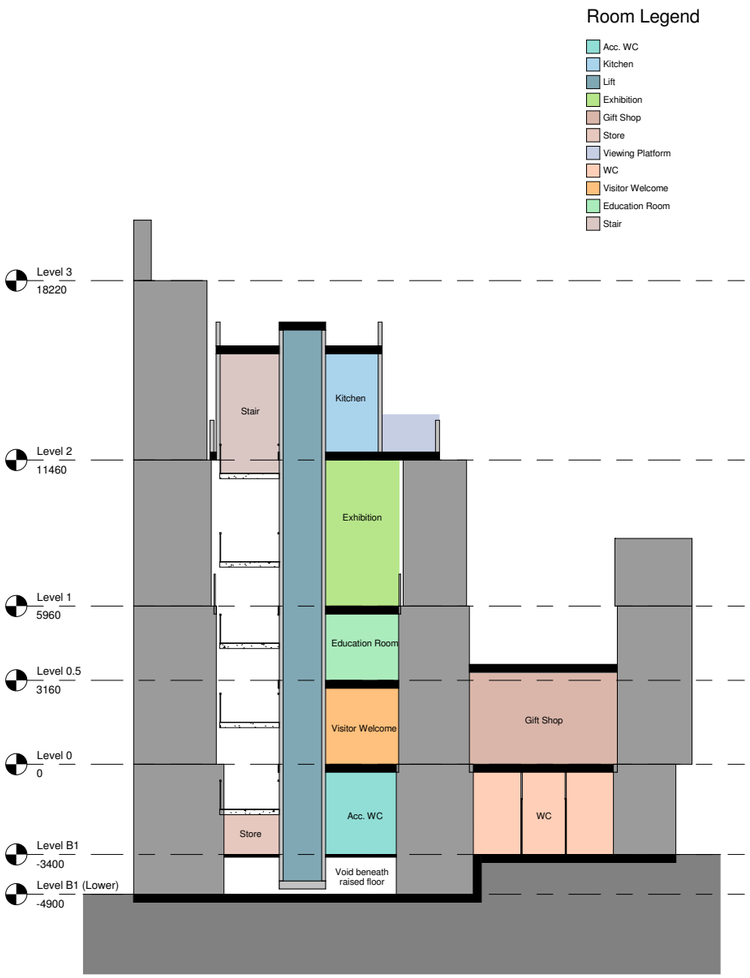
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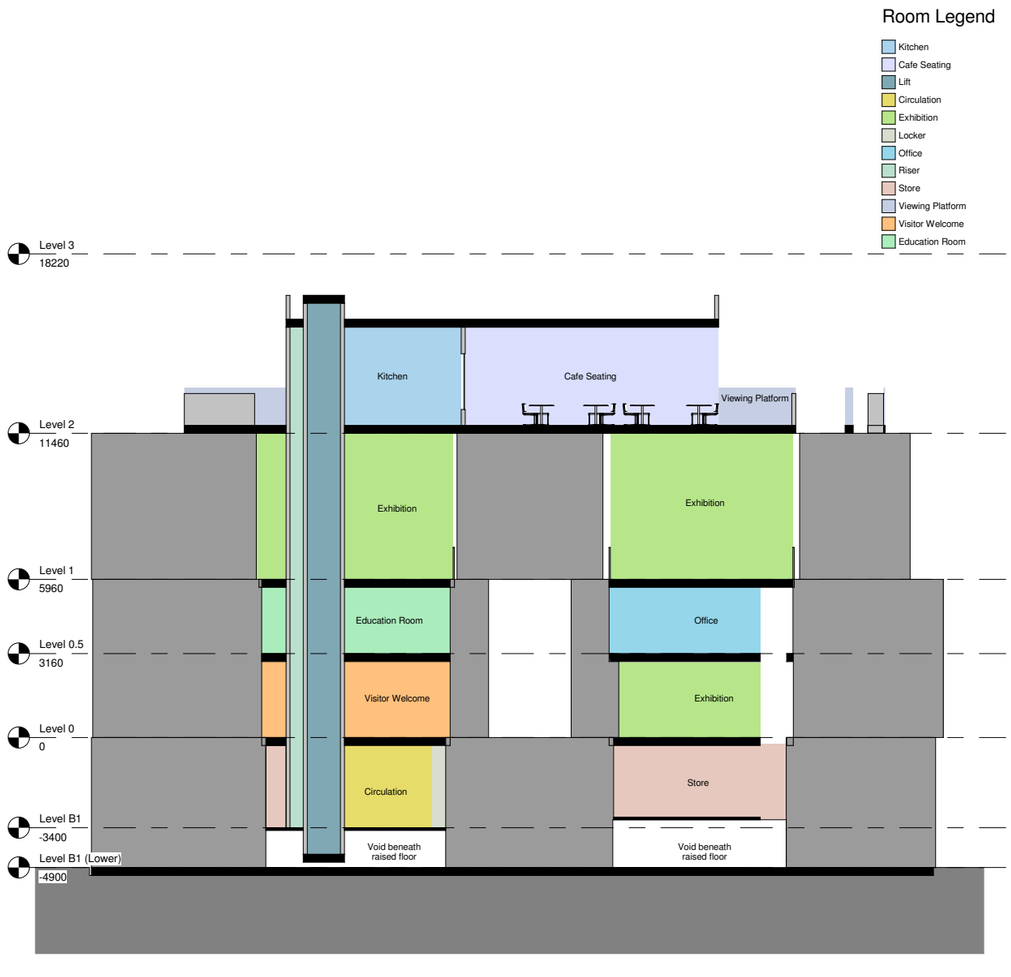
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1c
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	113	



1 **Section 1 - Option 1c**
1 : 100



2 **Section 2 - Option 1c**
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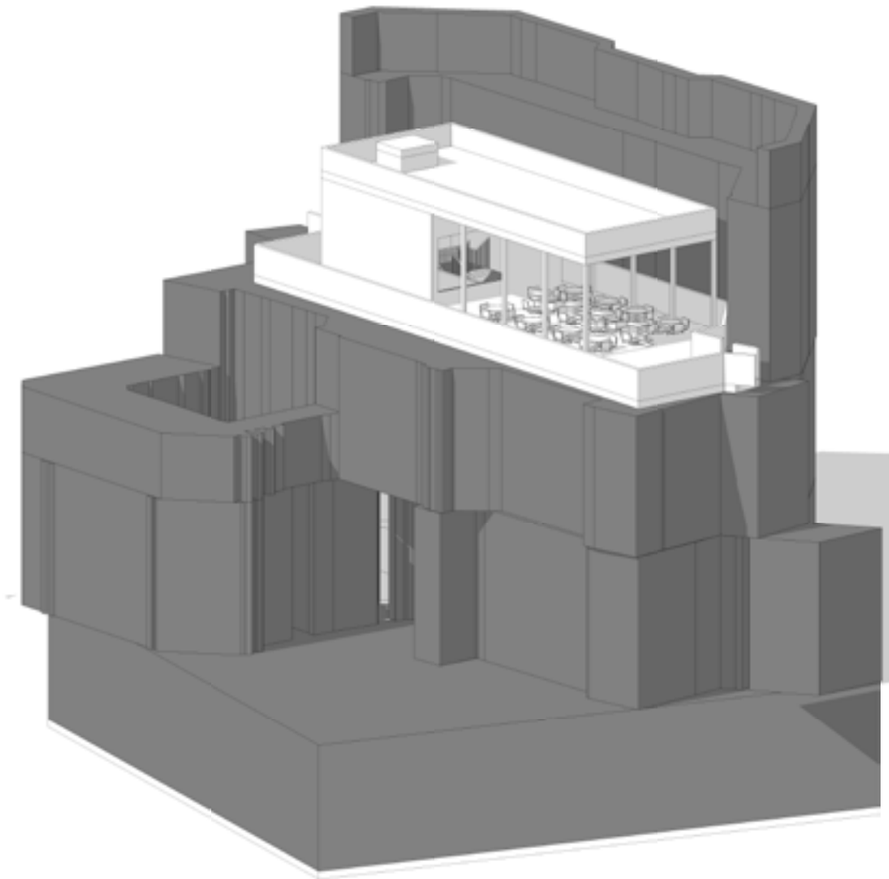
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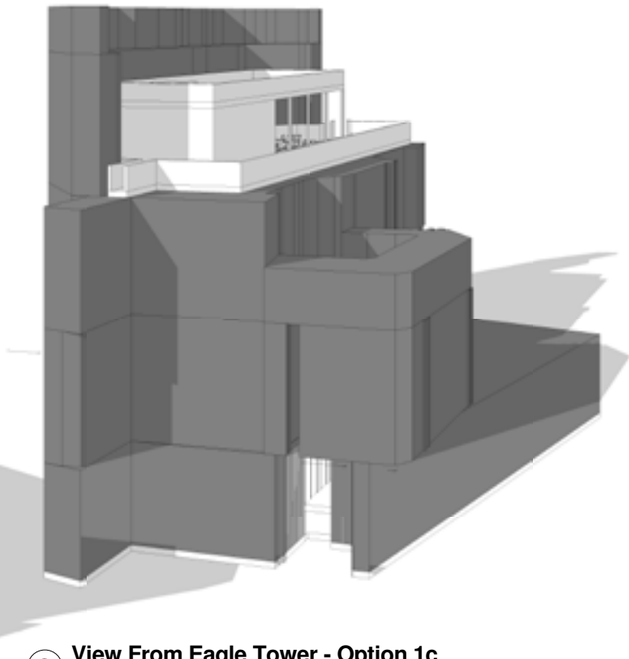
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1c
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	114	

Note:
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1 Option 1c



2 View From Eagle Tower - Option 1c

Option 1c - Total Areas	
Name	Area
Acc. WC	6 m²
Cafe Seating	60 m²
Circulation	16 m²
Education Room	33 m²
Exhibition	114 m²
Gift Shop	38 m²
Kitchen	20 m²
Locker	3 m²
Office	35 m²
Stair	14 m²
Store	45 m²
Viewing Platform	95 m²
Visitor Welcome	37 m²
WC	34 m²
Grand total	549 m²

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Location Caernarfon, Wales

Drawing ref Option 1c

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Scale
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Status DRAFT

Drawing ref Job No Drawing No Revision
8307 115

6.11 Option 2

6.11.1 Option 2 explores the opportunities if a lift were to be located within Tower 2.

6.11.2 Two options exploring the possible spatial arrangements for Option 2 have been developed. These have been called Option 2a and 2b and details can be found in the following sub chapters.

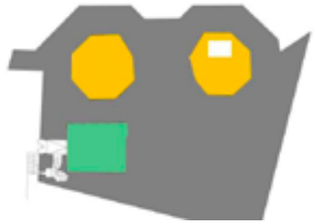
6.11.3 The following diagrams explore the accessibility issues to each part of Kings Tower if the lift was located in Tower 2.

6.11.4 The traffic light colour system indicates the following

- Green – Full accessibility to all uses
- Amber – Access with modifications / Access for ambulant users only
- Red – Restricted access

6.11.5 The accessibility challenges of Kings Tower as existing can be found in Sections 4.9 & 6.2.

Basement level



Ground Floor



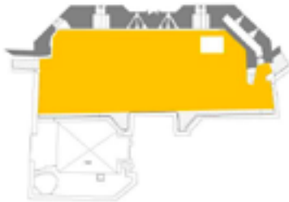
Mezzanine Level



First Floor



Second Floor



6.11.6 Option 2 – View from Eagle Tower



6.12 Option 2a

6.12.1 Option 2a explores the lift located within the tower to the left as you approach King's Gate from the road, named in this document as tower 2.

6.12.2 This option relocates the admin/staff spaces to the mezzanine level opening up the ground floor to visitors.

6.12.3 The gift shop has been relocated to Tower 1 with the visitor welcome at Tower 2. Creating an ordered flow for visitor entry/exit through the entrance space.

6.12.4 The visitor WC facilities including accessable WC and visitor lockers have been relocated to the ground floor of Tower 3.

6.12.5 The office accommodation is proposed to be relocated to a new mezzanine level witin Tower 1. The floorplate is seen to be an open plan office workspace, accessed from stairs via the gift shop at ground floor, and provides sufficient area to fullfill the brief requirements.

6.12.6 First floor of Tower 1 and 2 is used for exhibition/interpretation spaces.

6.12.7 The basement of Tower 3 houses the relocated education spaces while the basement of Towers 1 and 2 form storage which is accessible via lift of ladder.

6.12.8 The proposed kitchen and café area is large enough for a small hot drinks/cold/preprepared food counter with sufficient area for 32 covers internally with an additional 36 covers externally.

6.12.9 The position of the lift within this option allows for the visitor to exit the lift facing the scenic view of the castle with the backdrop of the mountains and river.

6.12.10 Below outlines the uses that can be found at each floor

6.12.11 Basement:

- Storage

6.12.12 Ground Floor:

- Gift shop
- Exhibition space
- Visitor WC
- Accessible WC
- Visitor lockers

6.12.13 Mezzanine:

- Exhibition space
- Office/Admin facilities

6.12.14 First Floor:

- Exhibition space

6.12.15 Second Floor:

- Kitchen/Café
- Viewing deck

6.12.16 The viability of this option will need further investigation regarding the initial access through the opening at ground to Tower 2, as the threshold levels in this area are higher than the access level, and the wheelchair tracking shows this to involve tight manoeuvring to gain access. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

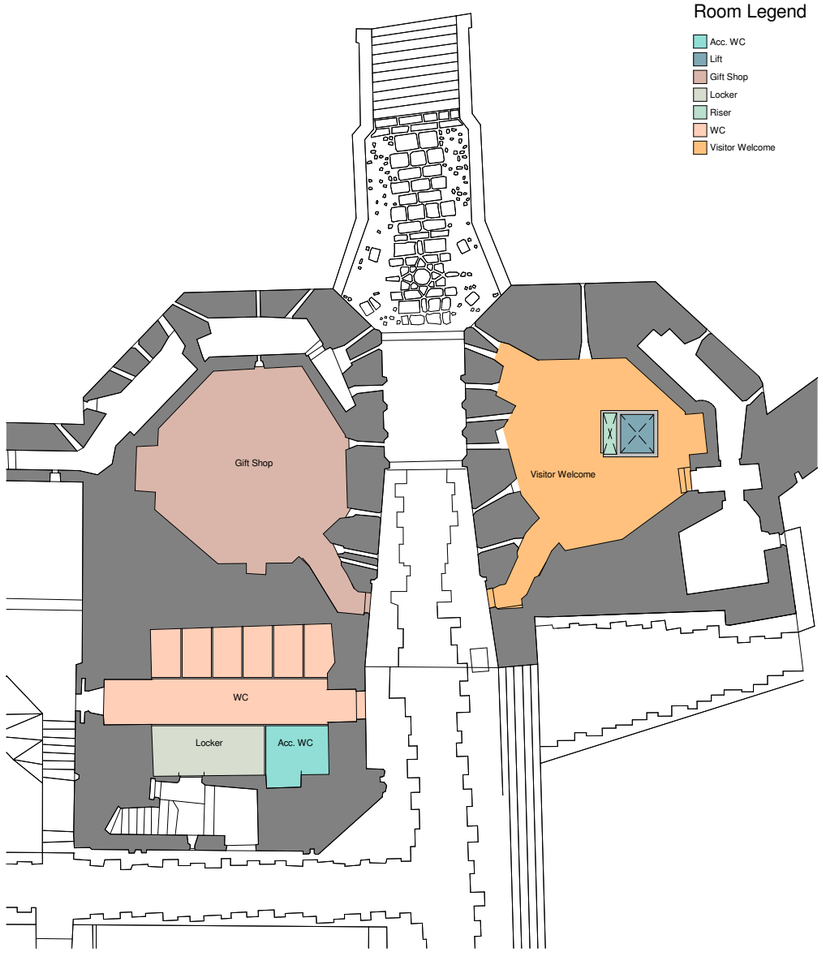
6.12.17 Brief Heritage Impact Overview

This option, at this stage of development, does not appear to have any large interventions due to the management of space. Interventions in the historic fabric that are required by new uses will be further assessed at a later date.

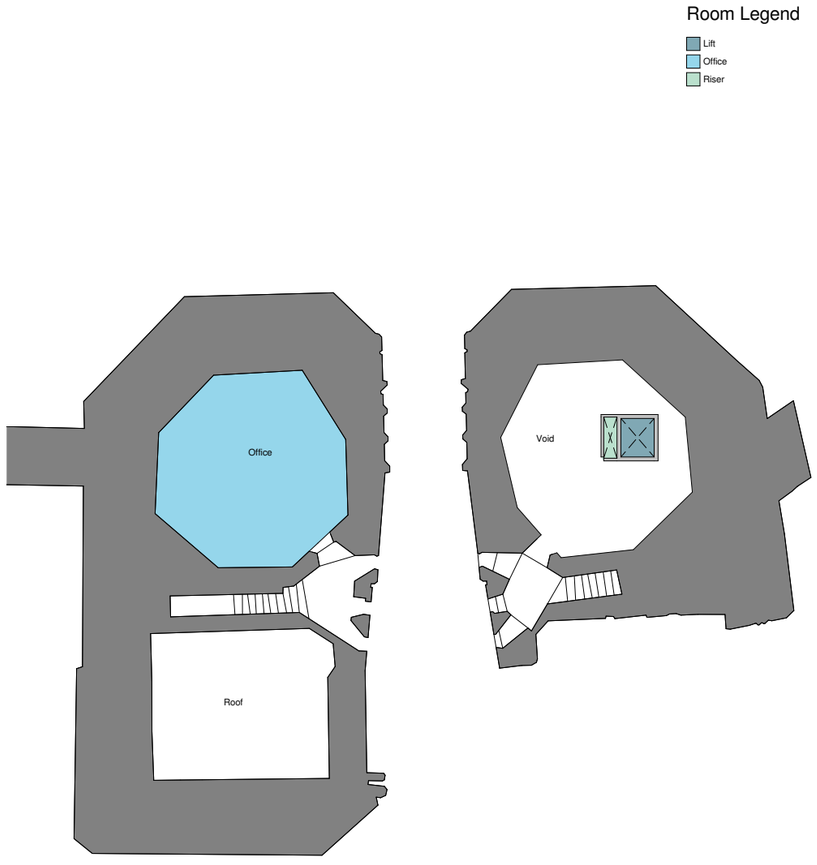
6.12.18 Areas

Basement	
Education space	37sqm
Store	72sqm
Ground Floor	
Visitor welcome	42sqm
Gift shop	49sqm
WC	29sqm
Accessible WC	5sqm
Visitor Locker	8sqm
Mezzanine Level	
Office	35sqm
First Floor	
Exhibition	65sqm
Second Floor	
Kitchen	13sqm
Café Seating	54sqm
Viewing Platform	123sqm
Total	
	540sqm

Note:
Do note scale from this drawing.
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1 **Level 0 Option 2a**
1 : 100



2 **Level 0.5 Option 2a**
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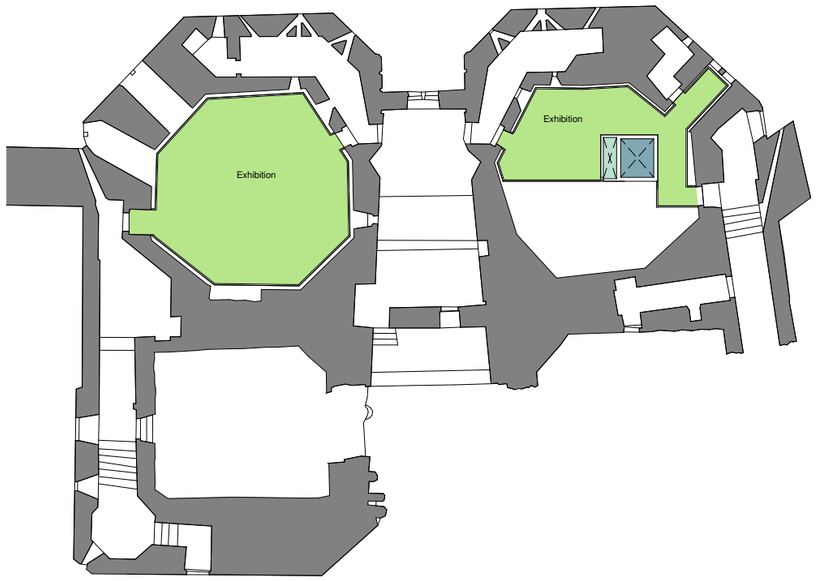
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2a
Date	
Checker	KC
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	8307	201	

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Room Legend

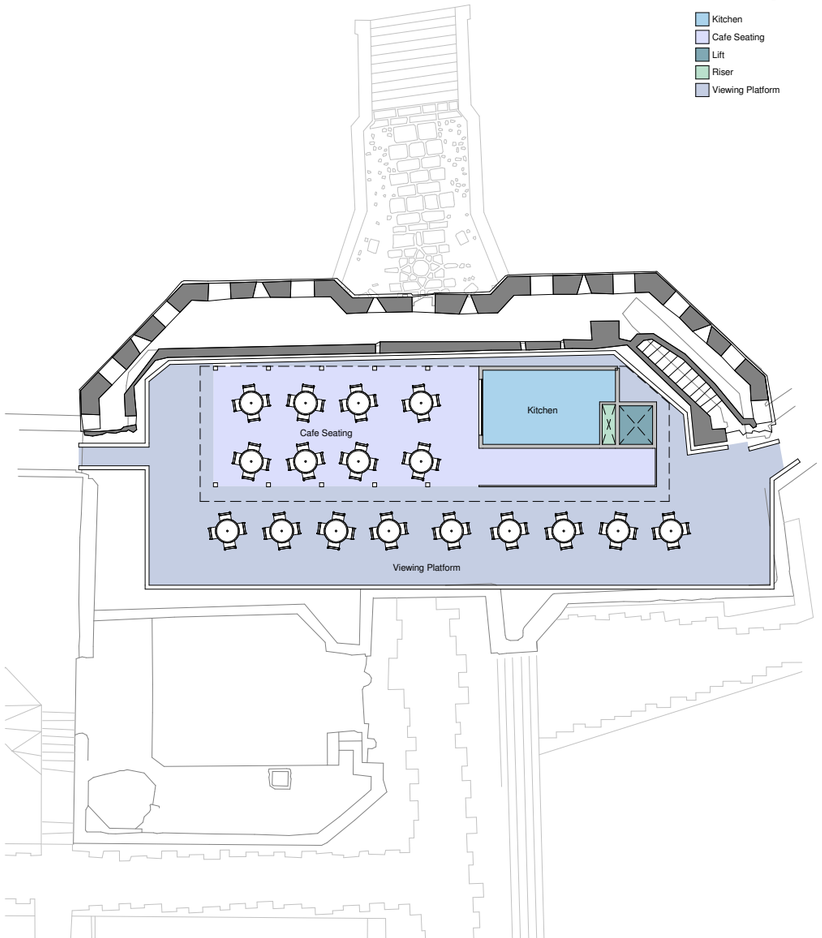
- Lift
- Exhibition
- Riser



1 Level 1 Option 2a
1 : 100

Room Legend

- Kitchen
- Cafe Seating
- Lift
- Riser
- Viewing Platform



2 Level 2 Option 2a
1 : 100

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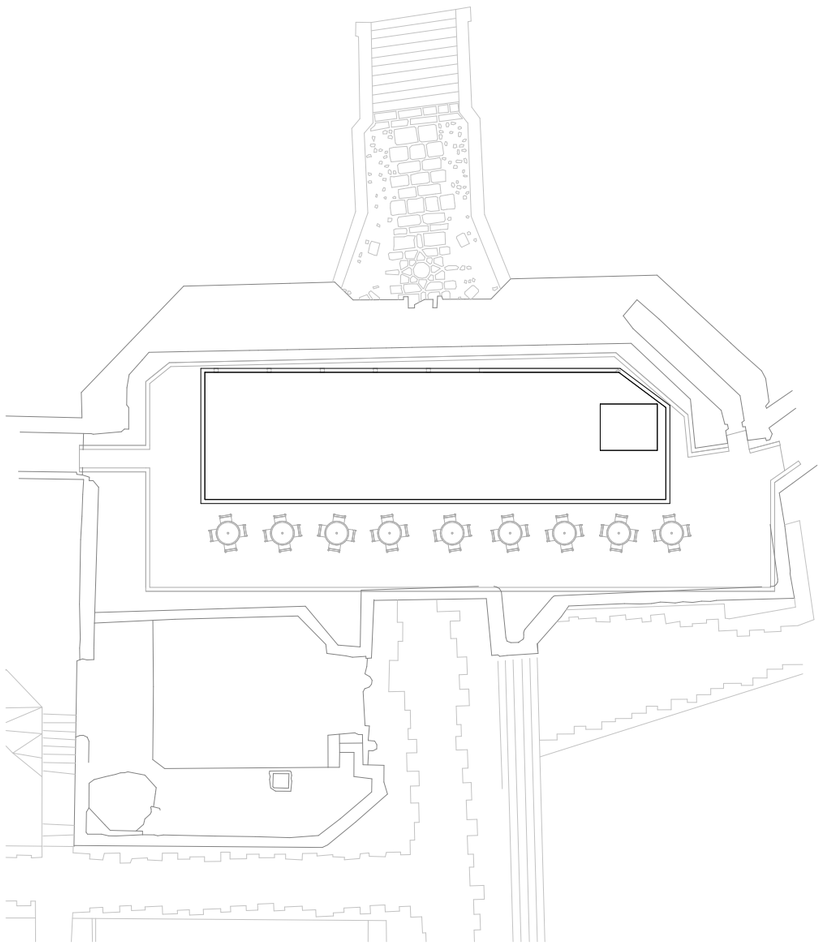
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2a

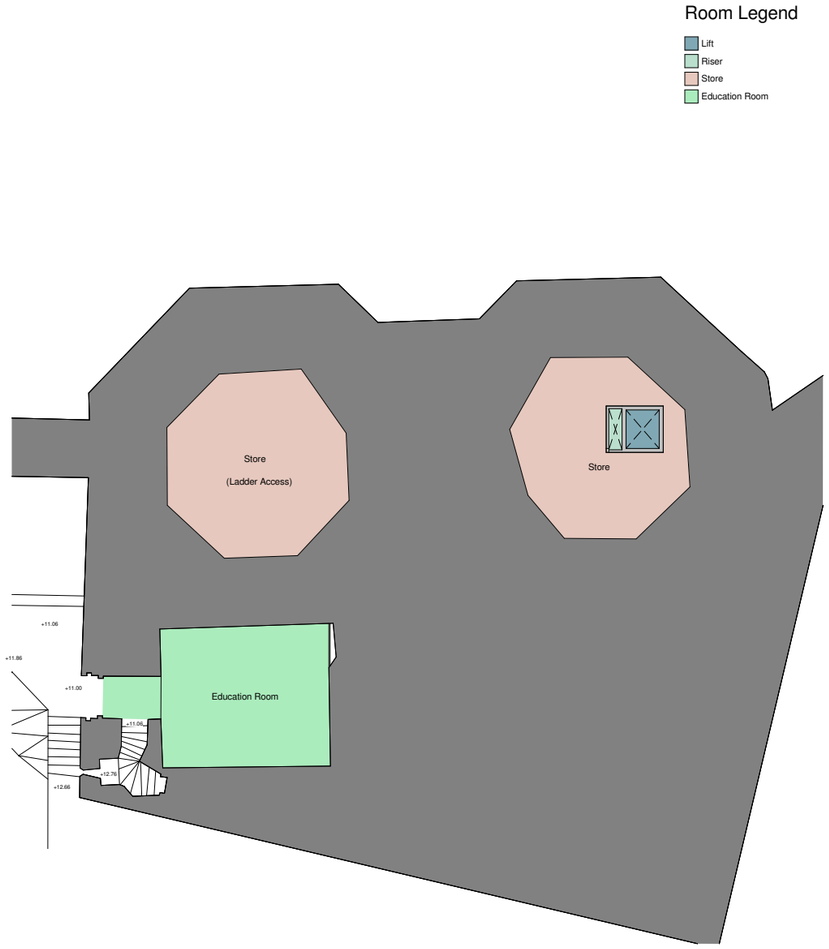
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Checker	KC	**Orig Paper Size**	A1
		Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	202	

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1 Level 3 Option 2a
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2 Level B1 (Lower) Option 2a
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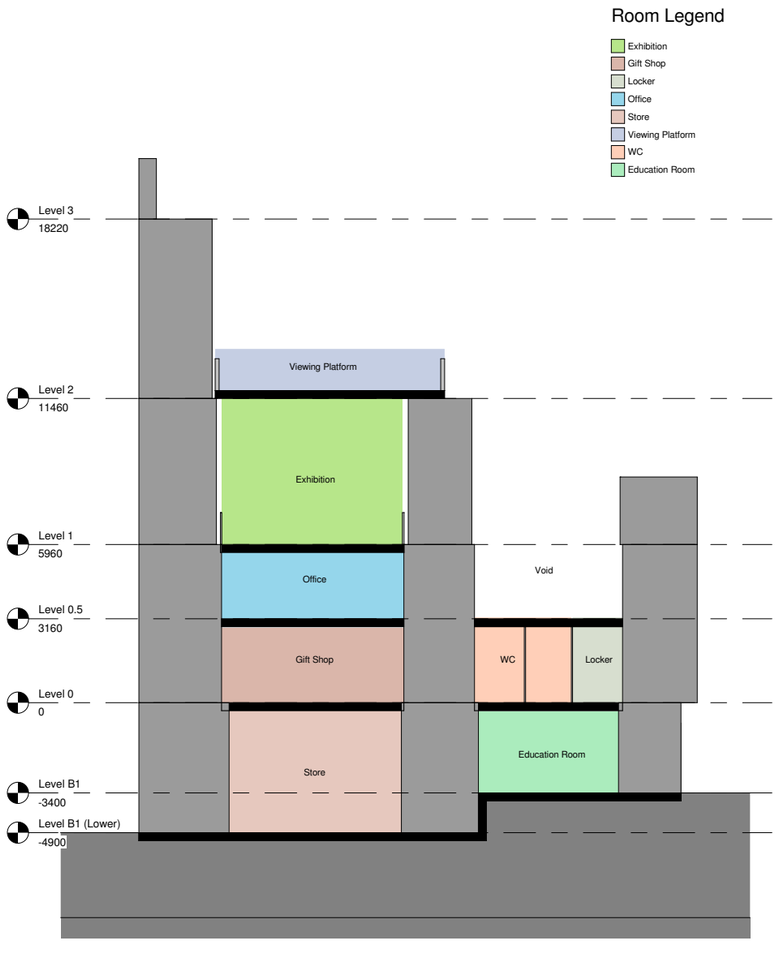
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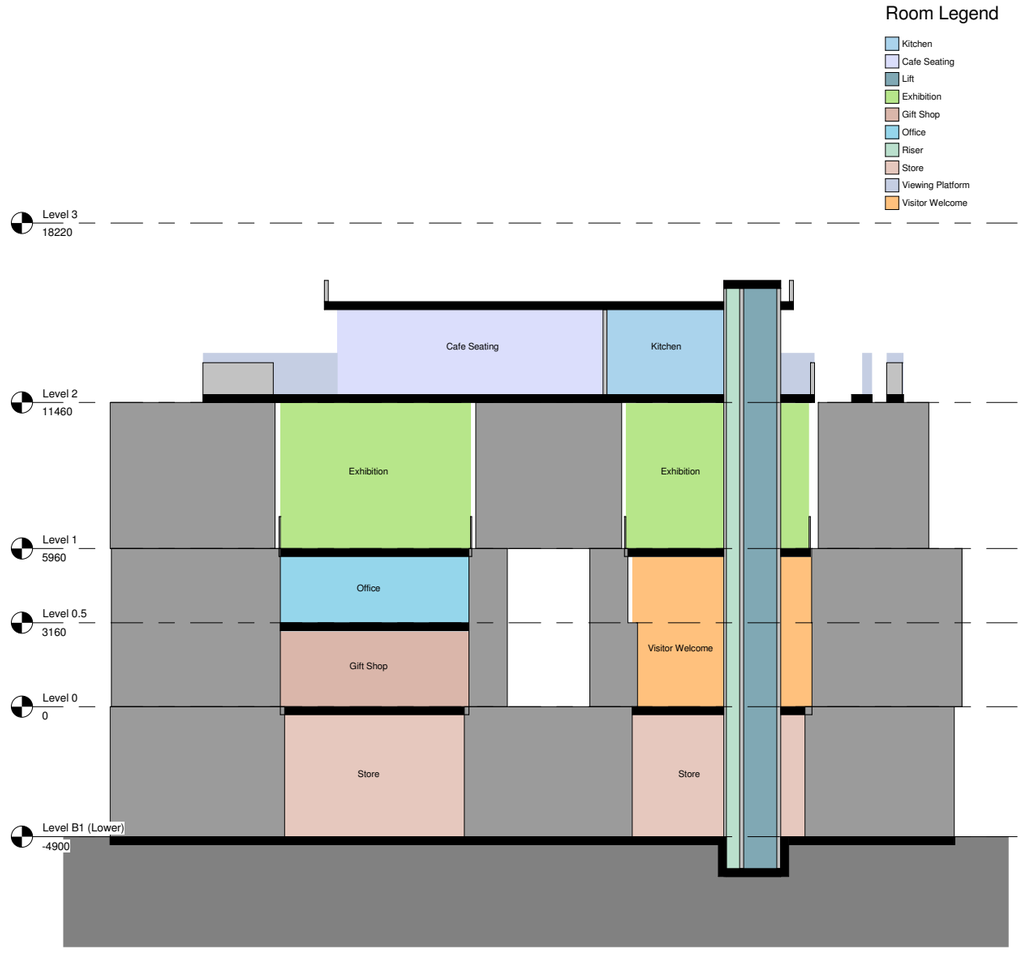
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2a
Date	
Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	203	

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2 **Section 2 - Option 2a**
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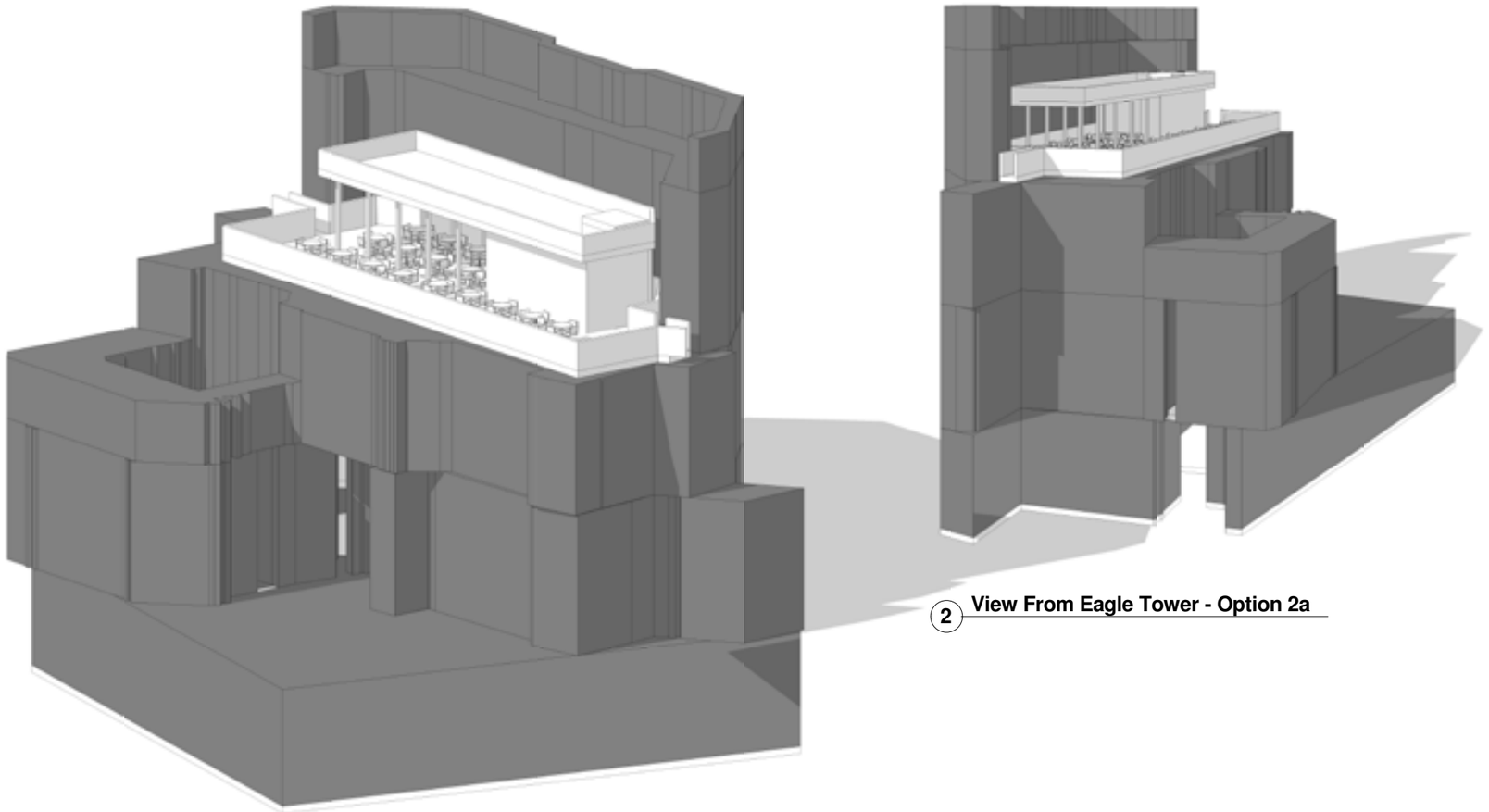
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2a

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		Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	204	

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1 **Option 2a**

2 **View From Eagle Tower - Option 2a**

Option 2a - Total Areas	
Name	Area
Acc. WC	5 m²
Cafe Seating	54 m²
Education Room	37 m²
Exhibition	65 m²
Gift Shop	49 m²
Kitchen	13 m²
Locker	8 m²
Office	44 m²
Store	72 m²
Viewing Platform	123 m²
Visitor Welcome	42 m²
WC	29 m²
Grand total	541 m²

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Scale	
Orig Paper Size	A1
Status	DRAFT

Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**205**	

6.13 Option 2b

6.13.1 Option 2b explores the lift located within the tower to the left as you approach King's Gate from the road, named in this document as Tower 2.

6.13.2 This option introduces an extended visitor welcome structure to the centre of the entrance of the Kings Tower.

6.13.3 Extending the visitor welcome and reorganising the location of the pay point, access to Towers 1 and 2 become part an organised visitor flow and reduces the cross traffic of visitors entering and exiting the castle.

6.13.4 Access to visitor WCs, located at ground floor of Tower 1, and the gift shop, located at ground floor of Tower 2, will be via the extended visitor welcome centre, completing the visitor service offers.

6.13.5 Staff office/admin provisions have been relocated to the ground floor of Tower 3. The office accommodation as shown provides sufficient area to fulfil the brief requirements and allows opportunities to use the existing drainage points for staff Kitchen provisions.

6.13.6 All exhibition space has been relocated to first floor, and is accessible via the lift in Tower 2 or the existing stair arrangement within Tower 3.

6.13.7 Additional exhibition space can be found located in the basement level of Tower 3.

6.13.8 The basement level houses a new education space accessible via the lift. Further development of the education spaces is required if to be accessed via the lift to ensure the lift is large enough to transport the groups to the space.

6.13.9 A store is located in the basement of Tower 1 and is accessible via a floor hatch and access ladder.

6.13.10 The proposed kitchen and café area is large enough for a small hot drinks/hot food counter with sufficient area for 44 covers under shelter with space for additional covers externally.

6.13.11 The position of the lift within this option opens within the kitchen/Café area directing the visitor pass the food/drinks offer before exiting to the viewing platform.

6.13.12 Below outlines the uses that can be found at each floor.

6.13.13 Basement:

- Storage
- Exhibition space
- Accessible WC

6.13.14 Ground Floor:

- Gift shop
- Office/Admin facilities
- Visitor WC
- Visitor lockers

6.13.15 Mezzanine:

- Office/Admin facilities

6.13.16 First Floor:

- Exhibition space

6.13.17 Second Floor:

- Kitchen/Café
- Viewing deck

6.13.18 The viability of the option will need further investigation regarding the initial access through the opening at ground to Tower 1. The threshold levels in this area are higher than the access level and the width of the opening requires tracking to ensure wheelchair access is viable through this point.

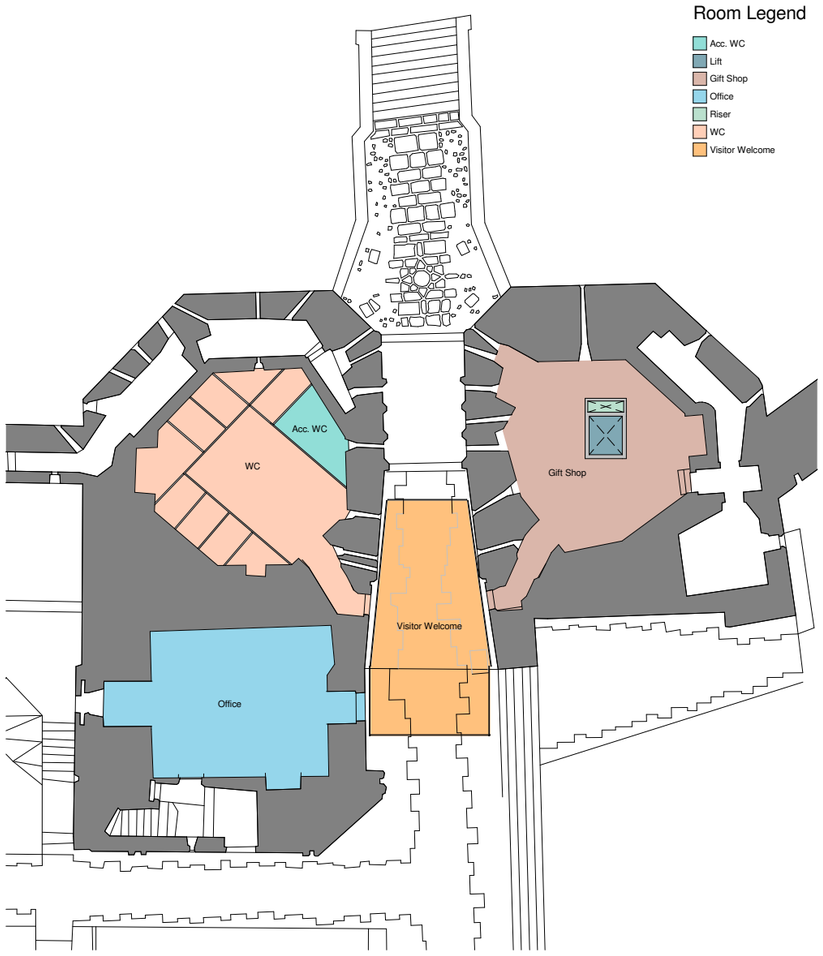
6.13.19 Brief Heritage Impact Overview

Some fabric intervention will be required for this option, but at this stage of development it has not been possible to assess the extent. The reuse of existing services, however, will help to minimise the impact.

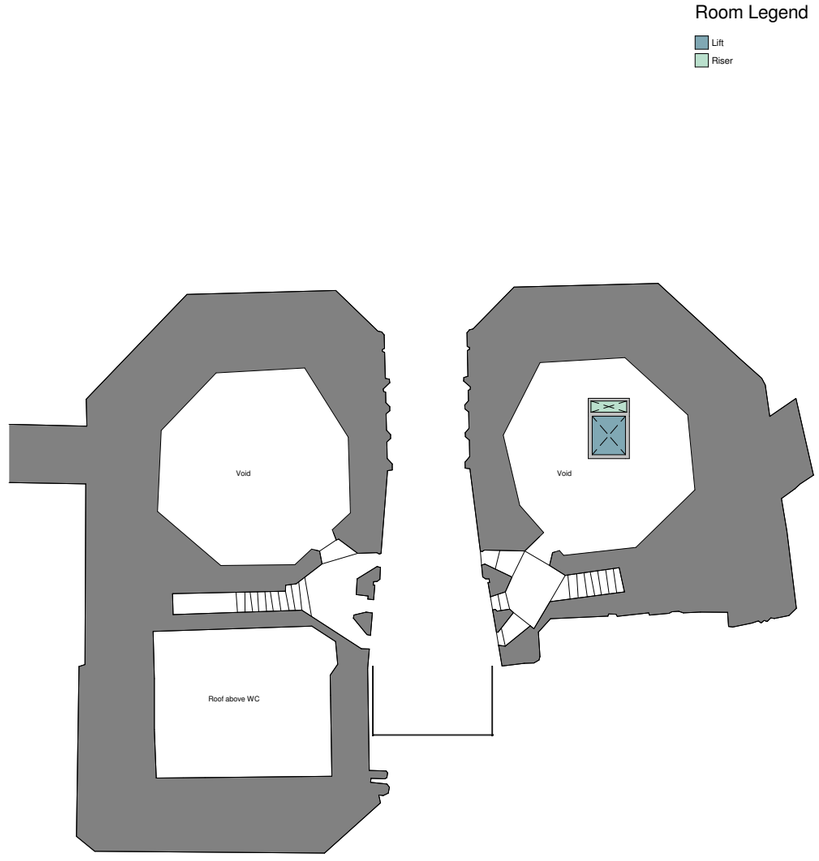
6.13.20 Areas

Basement	
Education space	33sqm
Store	39sqm
Exhibition	37sqm
Ground Floor	
Visitor welcome	35sqm
Gift shop	42sqm
WC	44sqm
Accessible WC	5sqm
Office	43sqm
First Floor	
Exhibition	99sqm
Second Floor	
Kitchen	24sqm
Café Seating	55sqm
Viewing Platform	109sqm
Total	
	564sqm

Note:
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1 Level 0 Option 2b
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2 Level 0.5 Option 2b
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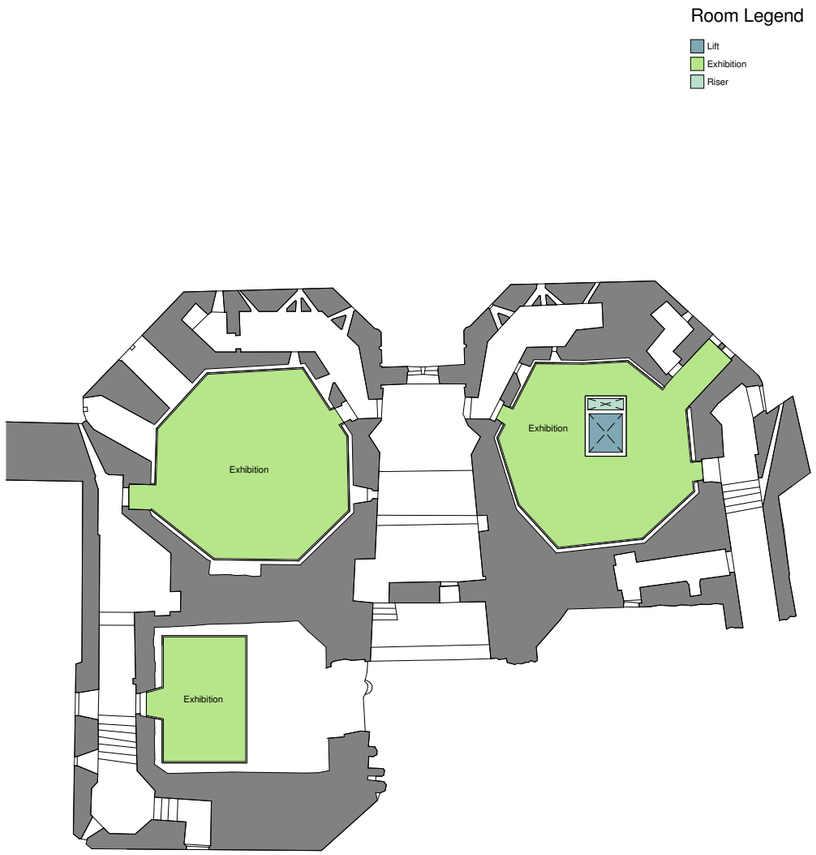
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Drawing ref	Option 2b

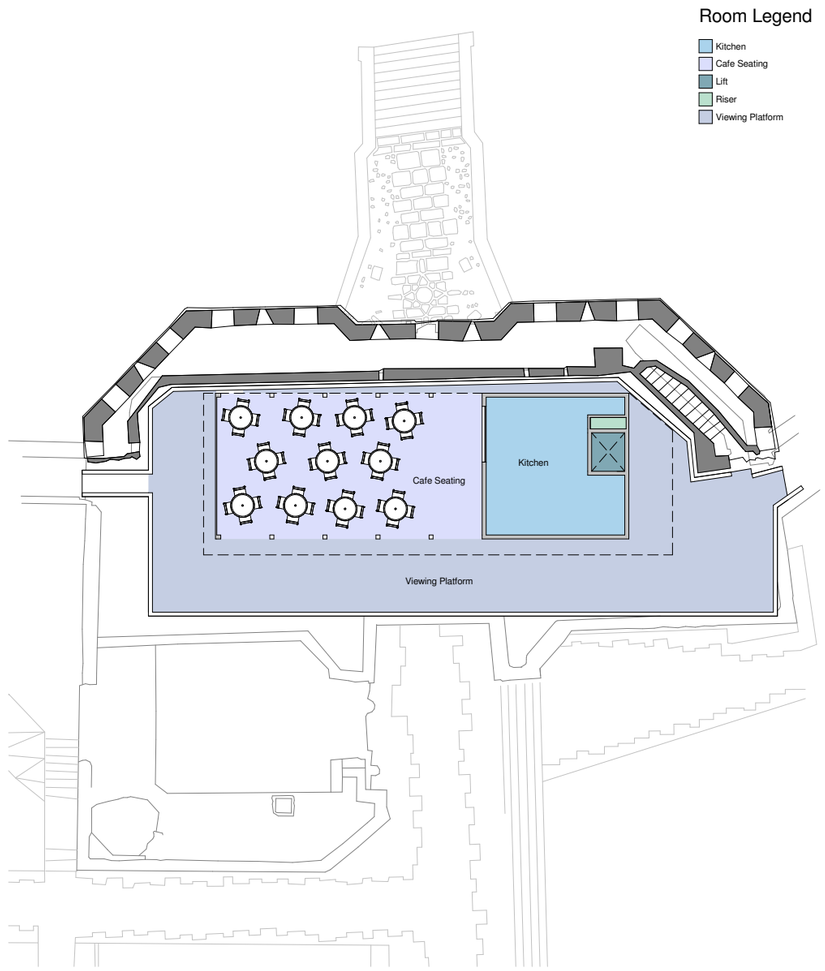
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		Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	206	

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1 Level 1 Option 2b
1 : 100



2 Level 2 Option 2b
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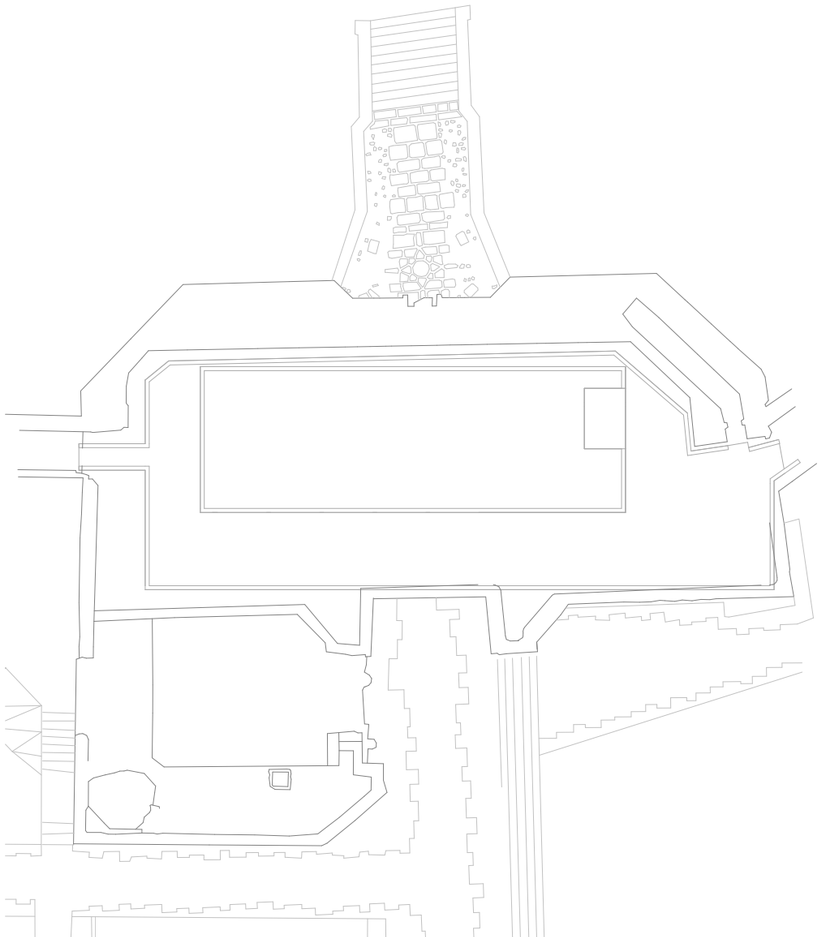
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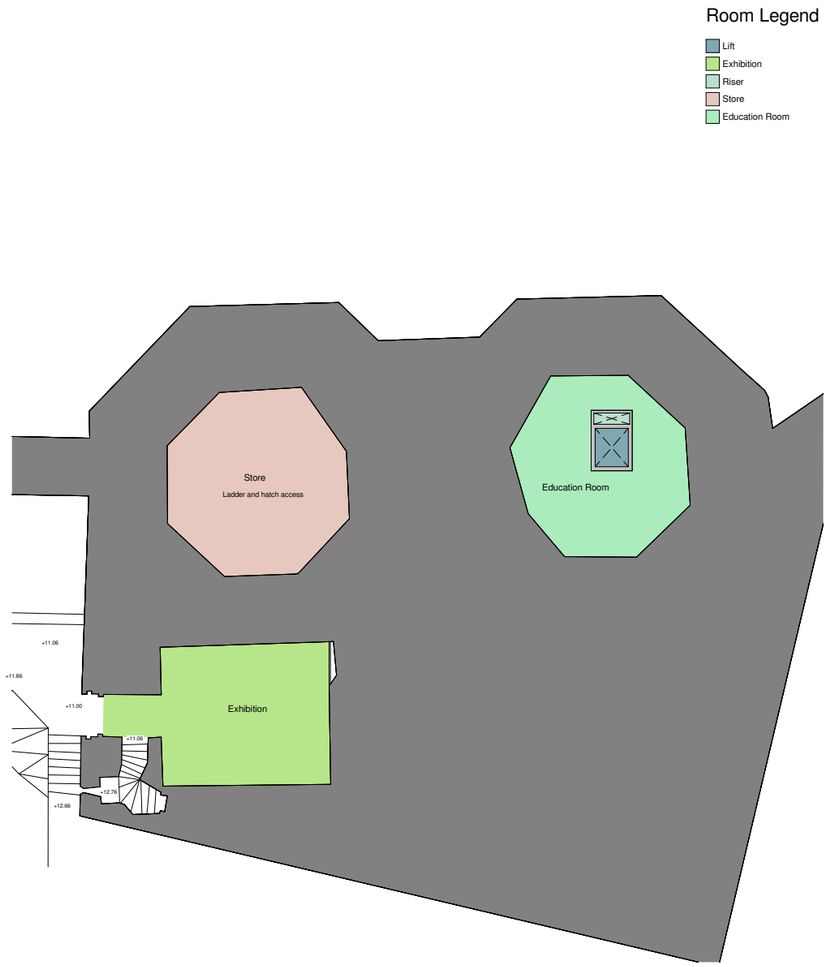
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2b
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Checker	KC
Scale	1 : 100
Orig Paper Size	A1
Status	DRAFT

Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**207**	

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1 **Level 3 Option 2b**
1 : 100



2 **Level B1 (Lower) Option 2b**
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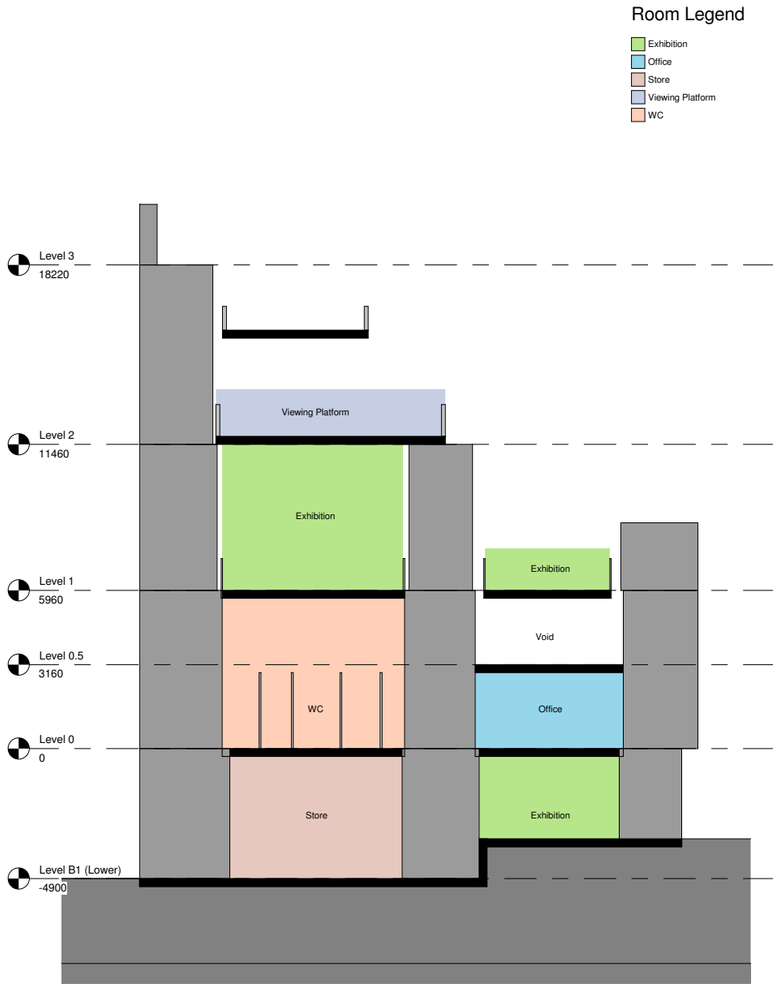
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2b

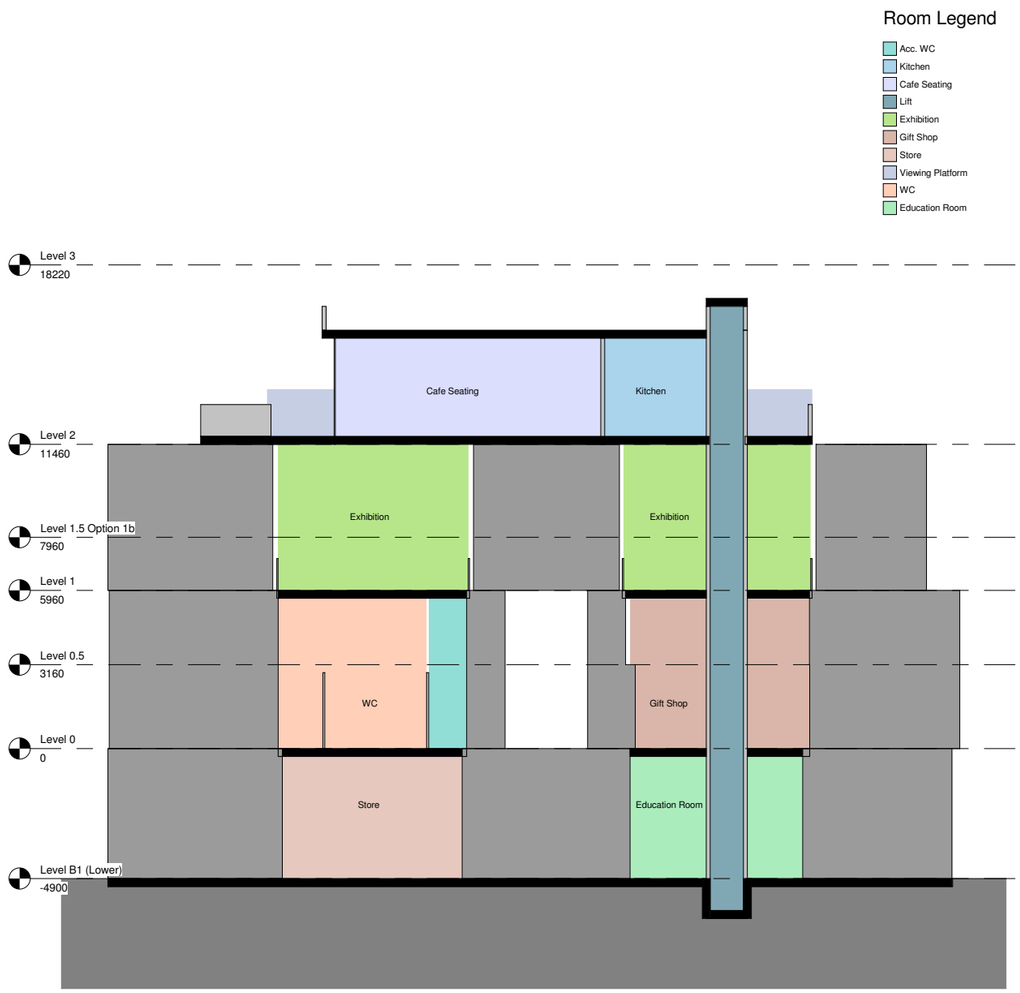
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Checker	KC	**Orig Paper Size**	A1
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Drawing ref	Job No	Drawing No	Revision
	8307	208	

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1 **Section 1 - Option 2b**
1 : 100



2 **Section 2 - Option 2b**
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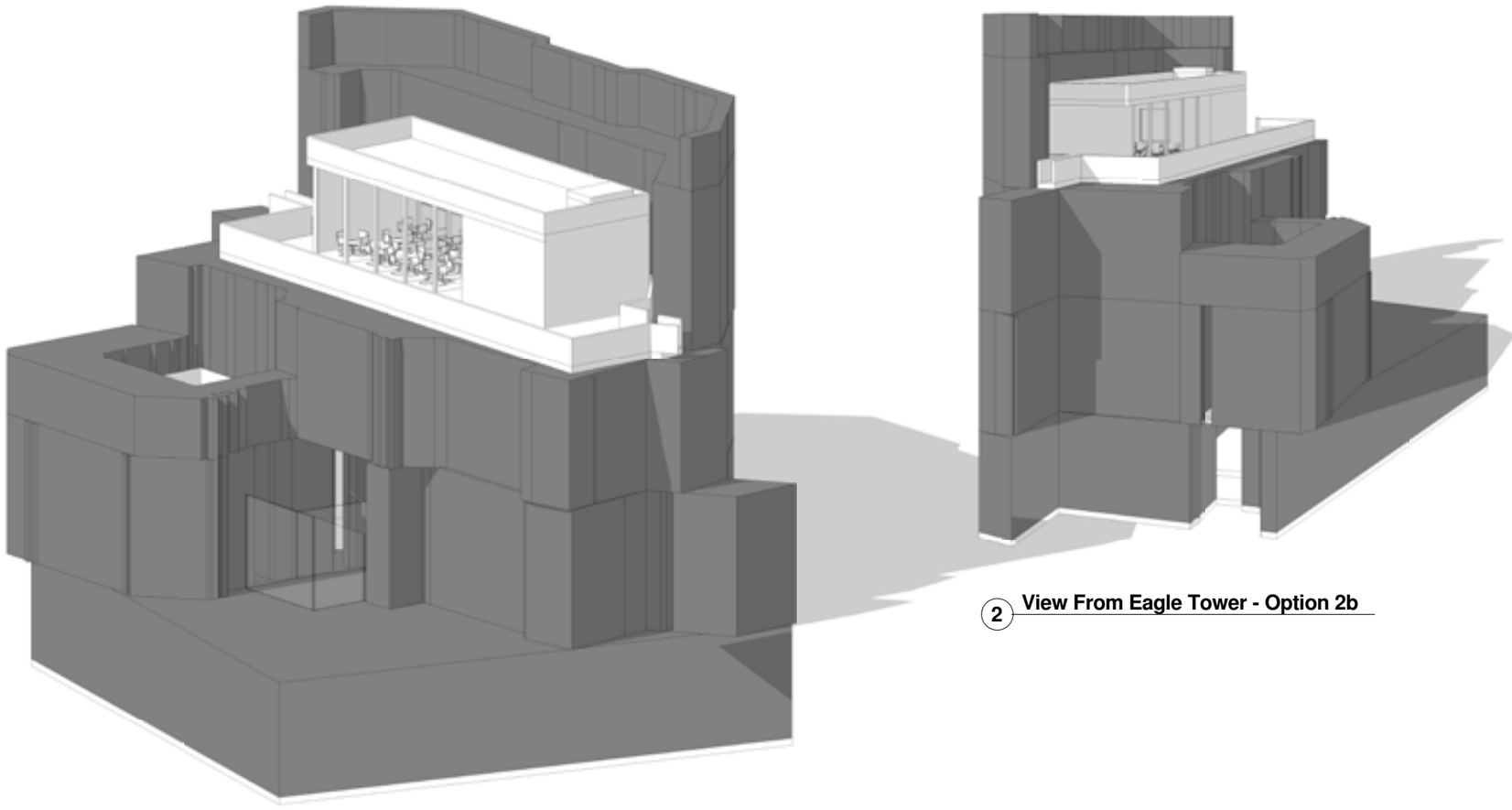
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Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 2b

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	8307	**209**	

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1 Option 2b

2 View From Eagle Tower - Option 2b

Option 2b - Total Areas	
Name	Area
Acc. WC	5 m²
Cafe Seating	55 m²
Education Room	33 m²
Exhibition	136 m²
Gift Shop	42 m²
Kitchen	24 m²
Office	43 m²
Store	39 m²
Viewing Platform	109 m²
Visitor Welcome	35 m²
WC	44 m²
Grand total	565 m²

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Location Caernarfon, Wales

Drawing ref Option 2b

Date
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Scale
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Status DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	210	

6.14 Option 3

6.14.1 Option 3 explores the opportunities if a lift were to be located within Tower 3.

6.14.2 One option exploring the possible spatial arrangements for Option 3 has been developed. Details of which can be found in the following Section.

6.14.3 Only one option has been explored for this lift position as it is understood from discussions with Cadw that the visual impact here is unlikely to be acceptable. This lift position does however open up access and therefore is it considered important to look at this option in detail.

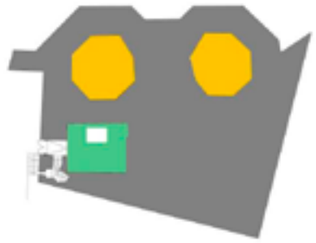
6.14.4 The following diagrams explore the accessibility issues to each part of Kings Tower if the lift was located in tower 3.

6.14.5 The traffic light colour system indicates the following

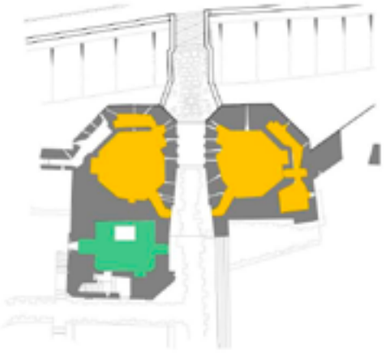
- Green – Full accessibility to all uses
- Amber – Access with modifications/Access for ambulant users only
- Red – Restricted access

6.14.6 The accessibility challenges of Kings Tower as existing can be found in Sections 4.9 & 6.2.

Basement level



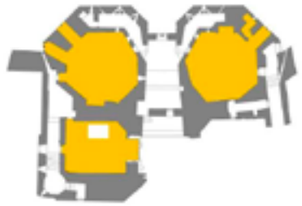
Ground Floor



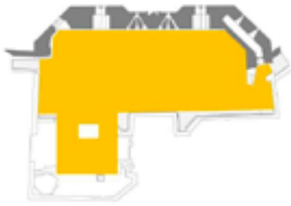
Mezzanine Level



First Floor



Second Floor



6.14.7 Option 3 – View from Eagle Tower



6.15 Option 3

6.15.1 Option 3 explores the lift located within Tower 3.

6.15.2 This option relocates the admin/staff spaces to the mezzanine level opening up the ground floor to visitors.

6.15.3 The education space is relocated to ground floor of Tower 1 and houses a stair to access a store within the basement. This location allows access directly from the main entrance for school groups, reducing congestion at the visitor entrance.

6.15.4 The stair from the education space also leads up to an exhibition space located at mezzanine level, to be used for education interpretation.

6.15.5 Similarly, the gift shop has been relocated to the ground floor of Tower 2 with a stair to access a store located within the basement, which could also act as additional shop floor space if required.

6.15.6 The stair from the gift shop also leads up to the office accommodation located at mezzanine level.

6.15.7 The office accommodation provides a similar area as the existing scheme, and therefore it is believed to be able to accommodate the briefs requirements.

6.15.8 Tower 3 houses the visitor welcome which could also act as additional / temporary exhibition space.

6.15.9 Level one is primarily used for exhibition space, with a new floor plate introduced within Tower 3, which is accessed via existing openings within the historic fabric.

6.15.10 Option 3 proposes a raise floor deck to the basement levels of Towers 1 and 2. By reducing the floor to floor this reduces the size of the stairs and floor space used at ground floor.

6.15.11 The basement of Tower 3 houses the visitor WC provisions and accessible WC, and is accessible via the new lift and the addition of a raised floor provides level access from basement level.

6.15.12 The proposed kitchen and café area is large enough for a small hot drinks/hot food counter with sufficient area for 44 covers internally with space for additional covers externally.

6.15.13 The position of the lift within this option opens within the kitchen/Café area directing the visitor pass the food/drinks offer before exiting to the viewing platform.

6.15.14 Below outlines the accommodation uses that can be found at each floor.

6.15.15 Basement:

- Storage
- Visitor WC
- Accessible WC

6.15.16 Ground Floor:

- Gift shop
- Exhibition space
- Visitor welcome

6.15.17 Mezzanine:

- Exhibition space
- Office/Admin facilities

6.15.18 First Floor:

- Exhibition space

6.15.19 Second Floor:

- Kitchen/Café
- Viewing deck

6.15.20 The viability of the option will need further investigation regarding the initial access through the opening at ground to Tower 3 due to a slight level differences at the ground floor threshold.

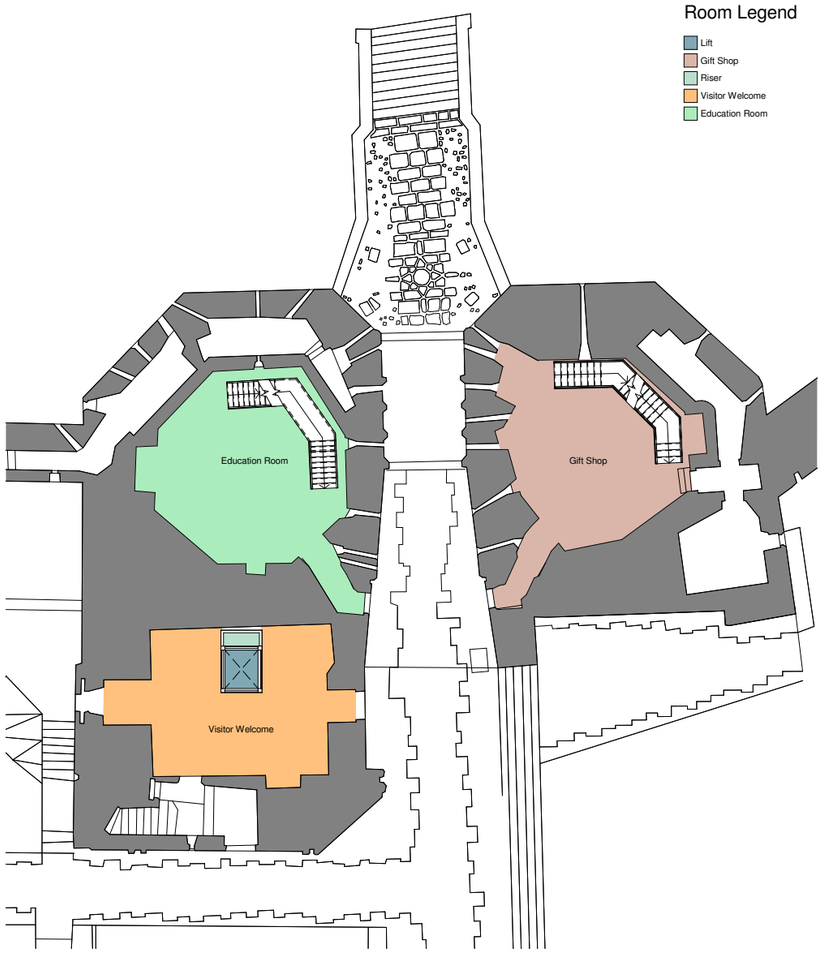
6.15.21 Brief Heritage Impact Overview

The development of these spaces will require intervention with the historic fabric, although the extent of this is not clear at the current phase of development. The new floor plate using historic openings has the potential to enhance the heritage significance of the space.

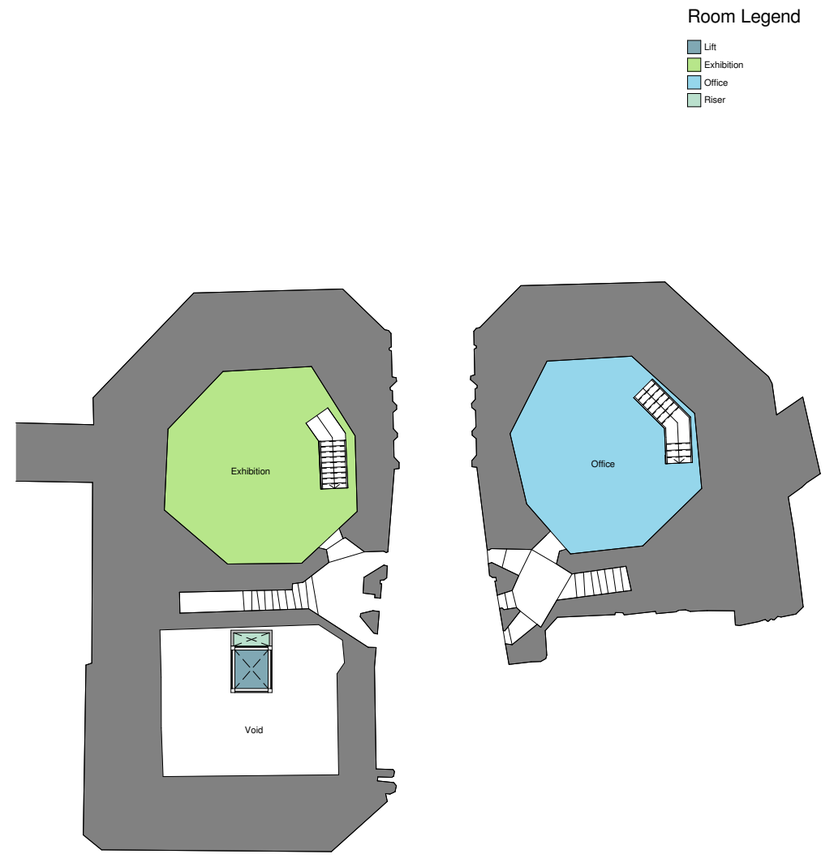
6.15.22 Areas:

Basement	
Visitor locker	5sqm
Accessible WC	5sqm
WC	20sqm
Store	76sqm
Ground Floor	
Visitor welcome	39sqm
Gift shop	46sqm
Education space	49sqm
Mezzanine	
Exhibition	44sqm
Office	41sqm
First Floor	
Exhibition	116sqm
Second Floor	
Kitchen	23sqm
Café Seating	43sqm
Viewing Platform	120sqm
Total	
	626sqm

Note:
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1 Level 0 Option 3
1 : 100



2 Level 0.5 Option 3
1 : 100

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Location	Caernarfon, Wales
Drawing ref	Option 3

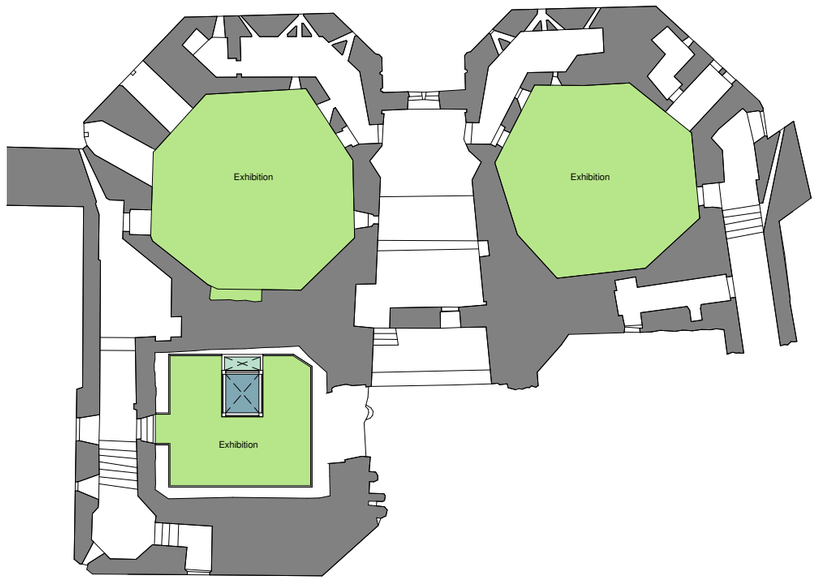
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		Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	301	

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Room Legend

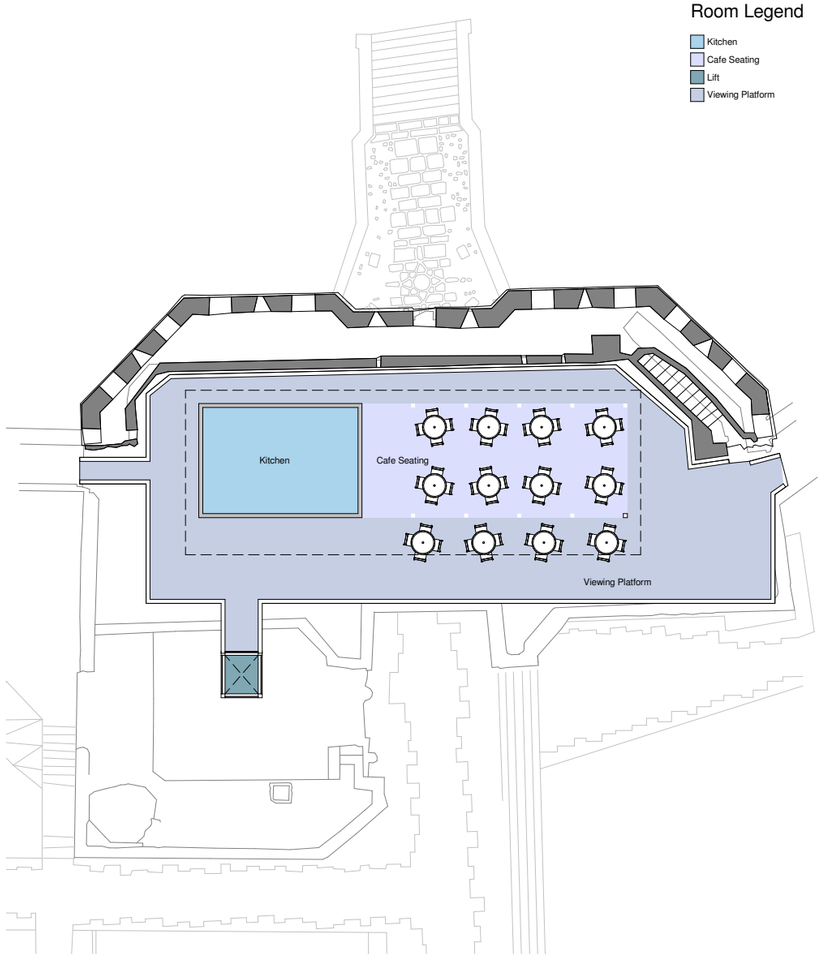
- Lift
- Exhibition
- Riser



1 Level 1 Option 3
1 : 100

Room Legend

- Kitchen
- Cafe Seating
- Lift
- Viewing Platform



2 Level 2 Option 3
1 : 100

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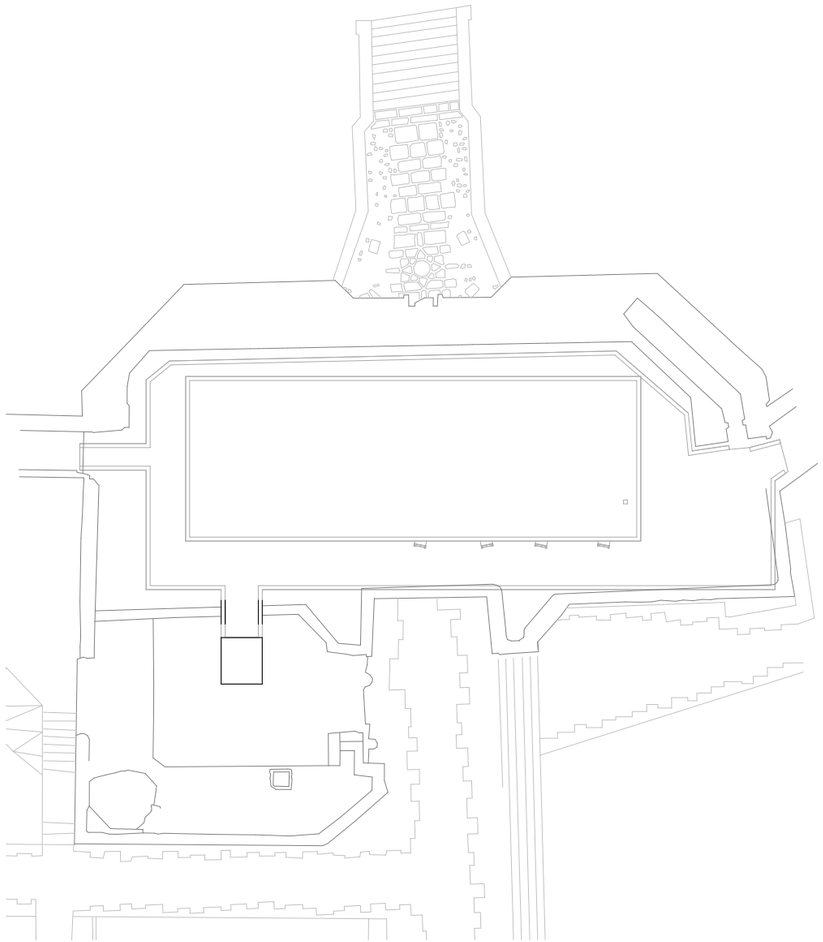
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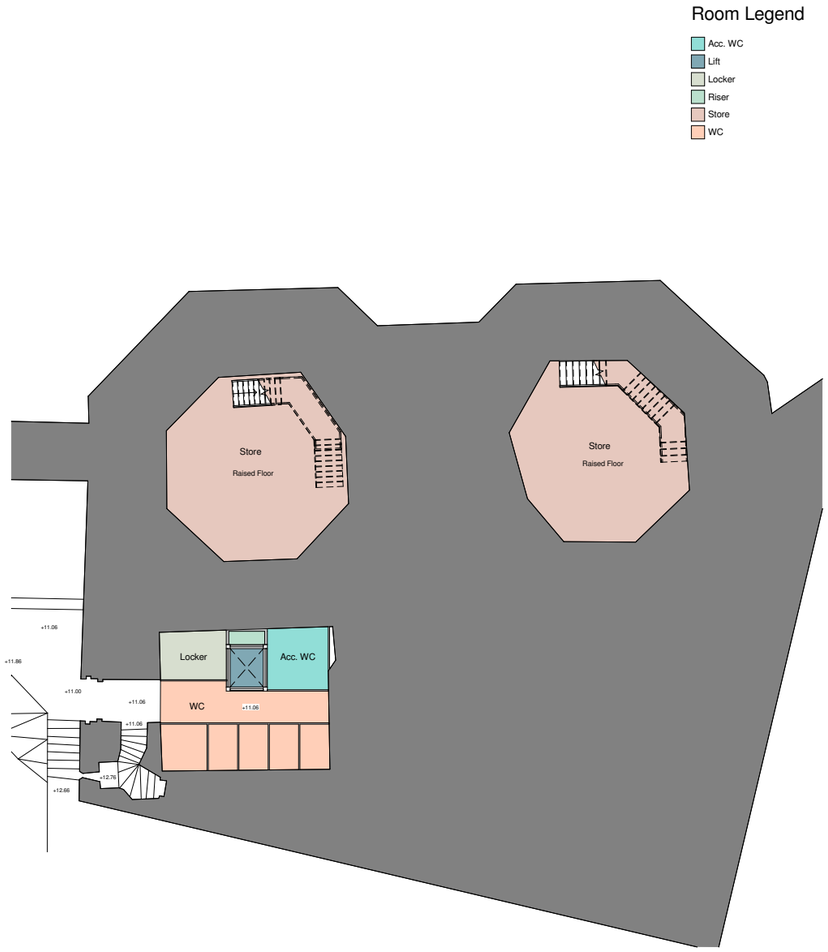
Project Title	Caernarfon Castle - King's Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 3

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		Status	DRAFT

Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**302**	



1 **Level 3 Option 3**
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2 **Level B1 Option 3**
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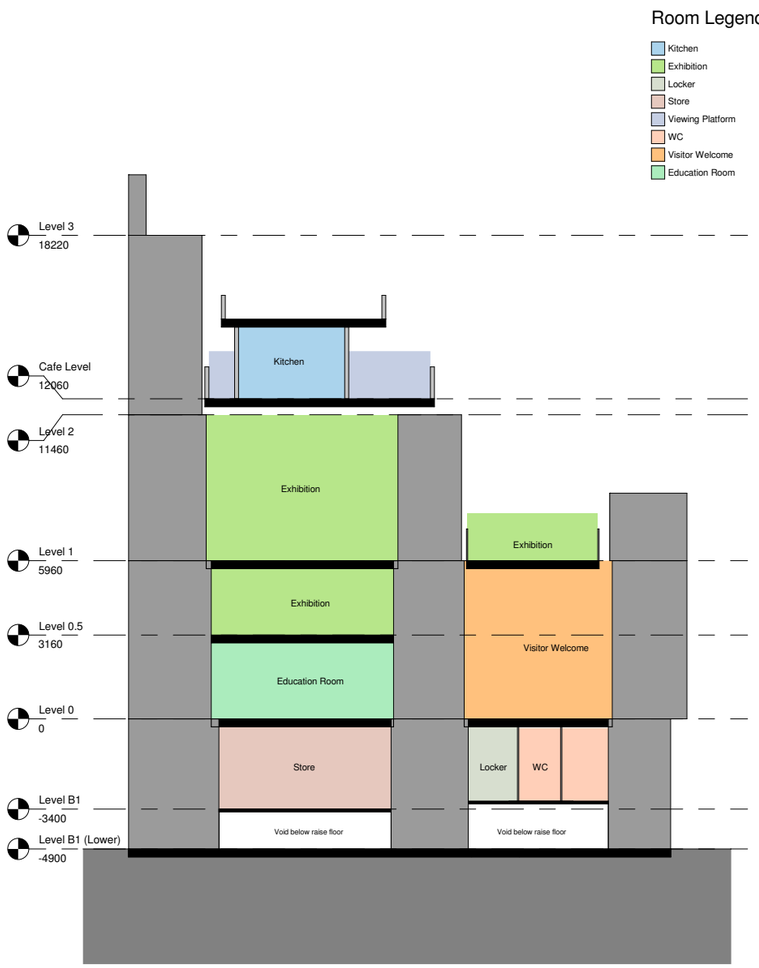
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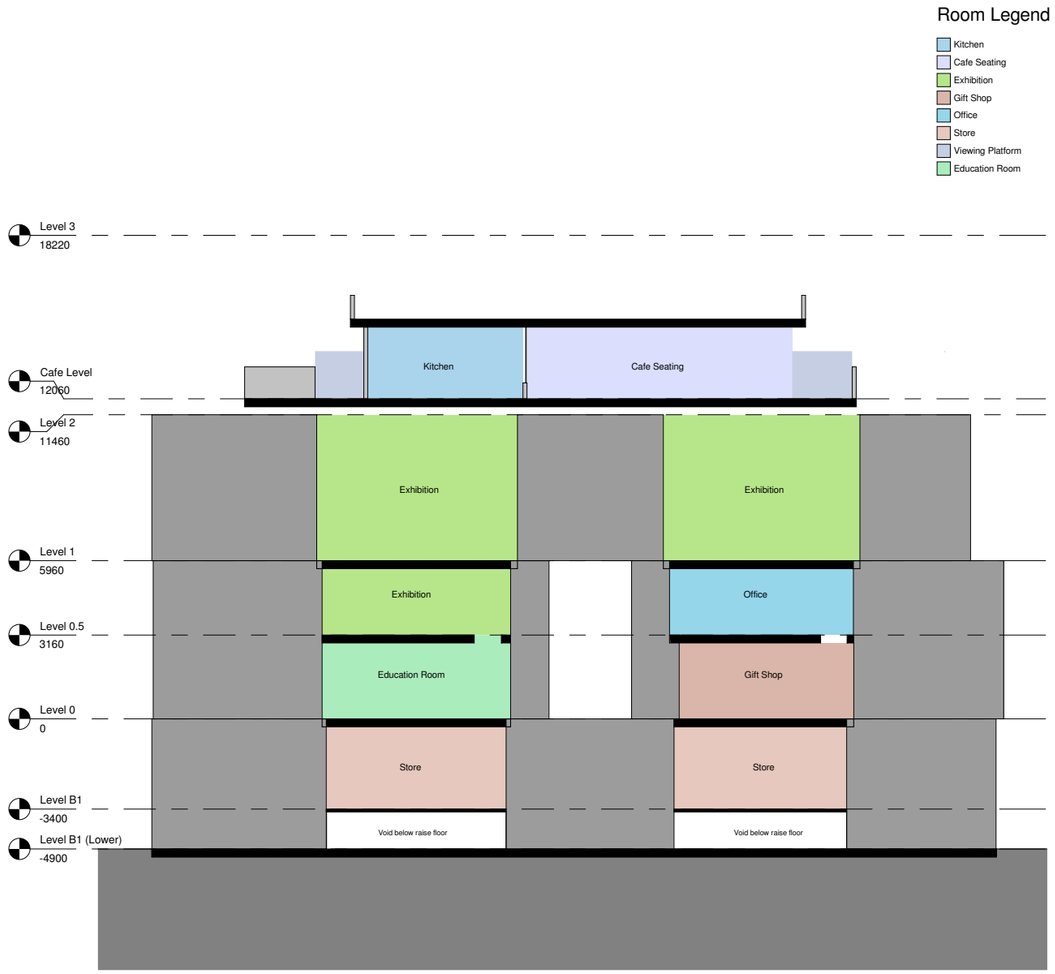
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 3
Date	
Checker	KC
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Orig Paper Size	A1
Status	DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	303	

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1 **Section 1 - Option 3**
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2 **Section 2 - Option 3**
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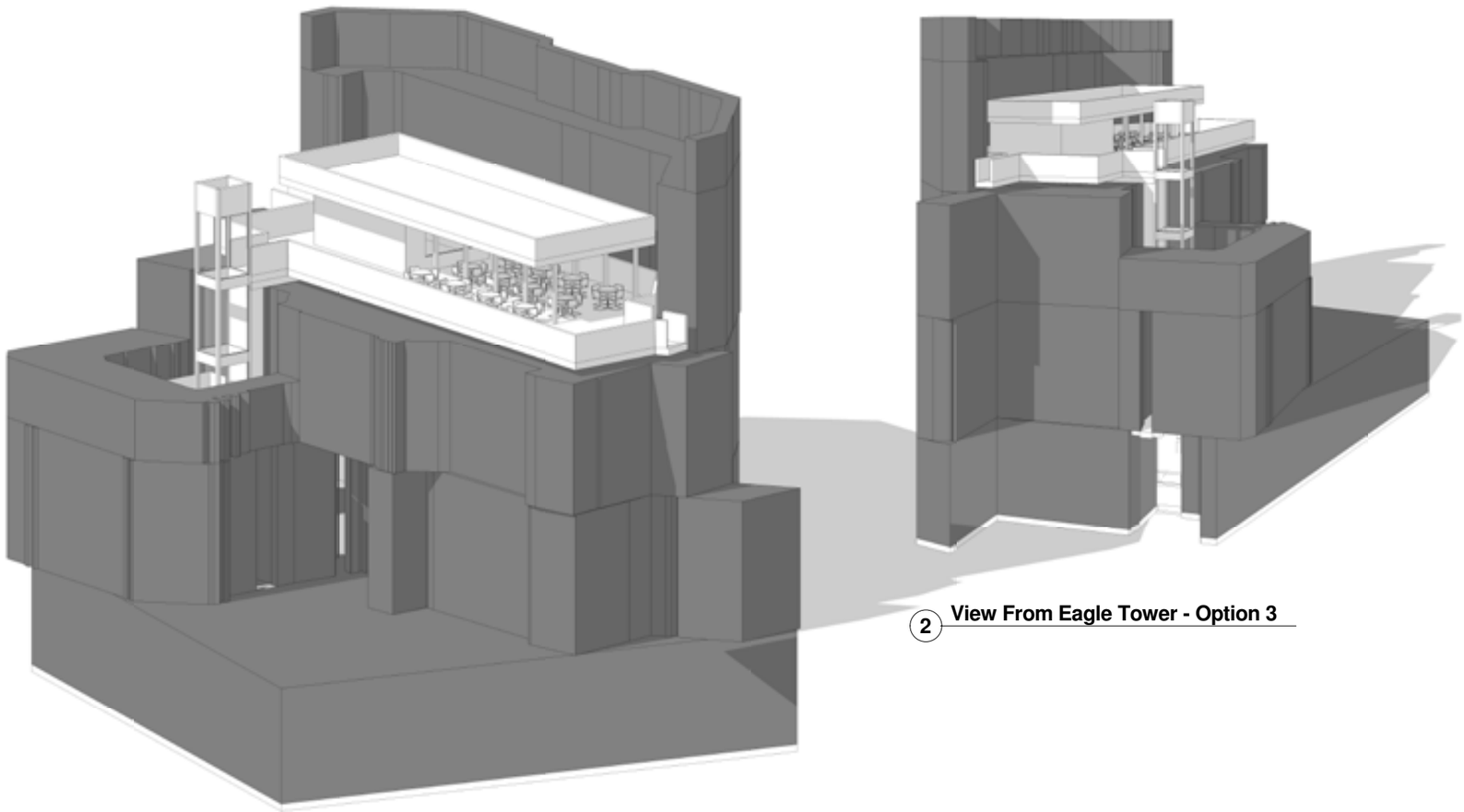
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Drawing ref	**Job No**	**Drawing No**	**Revision**
	8307	**304**	



2 View From Eagle Tower - Option 3

1 Option 3

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Option 3 - Total Areas	
Name	Area
Acc. WC	5 m²
Cafe Seating	43 m²
Education Room	49 m²
Exhibition	159 m²
Gift Shop	46 m²
Kitchen	23 m²
Locker	5 m²
Office	41 m²
Store	76 m²
Viewing Platform	120 m²
Visitor Welcome	39 m²
WC	20 m²
Grand total	626 m²

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Client CADW
Location Caernarfon, Wales

Drawing ref Option 3

Date
Checker KC
Scale
Orig Paper Size A1
Status DRAFT

Drawing ref	Job No	Drawing No	Revision
	8307	305	

6.16 Area Comparision

6.16.1 Overview of areas per option compaierd to existing areas

	Visitor Welcome	Gift Shop	Accessible WC	Visitor WC	Visitor Locker	Education Space	Exhibition	Office Accomodation	Kitchen	Sheltered Café Seating	Viewing Platform	Store	Circulation	Total
Existing		36 sqm				45 sqm		40 sqm			9 sqm	70 sqm		**200 sqm**
Option 1a	29 sqm	38 sqm	6 sqm	33 sqm	7 sqm	Dual space Area accounted for within the Exhibition area	61 sqm	34 sqm	14 sqm	55 sqm	149 sqm	108 sqm		**534 sqm**
Option 1b	29 sqm	38 sqm	6 sqm	33 sqm	9 sqm	35 sqm	100 sqm	74 sqm	19 sqm	49 sqm	122 sqm	73 sqm		**588 sqm**
Option 1c	37 sqm	28 sqm	6 sqm	34 sqm	3 sqm	33 sqm	114 sqm	35 sqm	20 sqm	60 sqm	95 sqm	36 sqm	30 sqm	**549 sqm**
Option 2a	42 sqm	49 sqm	5 sqm	29 sqm	8 sqm	37 sqm	65 sqm	44 sqm	13 sqm	54 sqm	123 sqm	72 sqm		**541 sqm**
Option 2b	35 sqm	42 sqm	5 sqm	44 sqm		33 sqm	136 sqm	43 sqm	24 sqm	55 sqm	109 sqm	39 sqm		**565 sqm**
Option 3	39 sqm	46 sqm	5 sqm	20 sqm	5 sqm	49 sqm	160 sqm	41 sqm	23 sqm	43 sqm	120 sqm	76 sqm		**626 sqm**

6.16.2 The table displaying the various options and associated areas has been summaried as follows

6.16.3 Option 1a provides

- An additional floor area of approximately 335 sqm
- Of this additional floor area 8% forms the visitor welcome
- 14% of the area forms the visitor facilities
- 15% of the area forms the exhibition space
- 61% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An increase of storage facilities by 54%

6.16.4 Option 1b provides

- An additional floor area of approximately 390 sqm
- Of this additional floor area 7% forms the visitor welcome
- 12% of the area forms the visitor facilities
- 25% of the area forms the exhibition space
- 49% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An increase of office facilities by 85%

6.16.5 Option 1c provides

- An additional floor area of approximately 350 sqm
- Of this additional floor area 10% forms the visitor welcome
- 12% of the area forms the visitor facilities
- 33% of the area forms the exhibition space
- 50% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An decrease of storage facilities by 50%

6.16.6 Option 2a provides

- An additional floor area of approximately 340 sqm
- Of this additional floor area 12% forms the visitor welcome
- 12% of the area forms the visitor facilities
- 20% of the area forms the exhibition space
- 55% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An increase of office facilities by 10%

6.16.7 Option 2b provides

- An additional floor area of approximately 365 sqm
- Of this additional floor area 9% forms the visitor welcome
- 13% of the area forms the visitor facilities
- 37% of the area forms the exhibition space
- 50% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An decrease of storage facilities by 45%
- An increase of office facilities by 10%

6.16.8 Option 3 provides

- An additional floor area of approximately 425 sqm
- Of this additional floor area 9% forms the visitor welcome
- 7% of the area forms the visitor facilities
- 37% of the area forms the exhibition space
- 44% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An increase of storage facilities by 8%
- An increase of office facilities by 85%

7 Development of Options

7.1 Introduction

7.1.1 This section sets out the next stage in options development, particularly referencing a Monument Development Team (MDT) meeting held on Tuesday 13th December 2016.

7.2 Outcomes of MDT Meeting

7.2.1 The analysis and emerging options as detailed throughout Sections 4, 5 & 6 of this report were reviewed in detail during the meeting.

7.2.2 It was agreed that the general disposition of Option 1, particularly in respect of the lift and retail locations was to be explored further.

7.2.3 The lift location in Option 2 was compromised, primarily due to the more constrained accessibility, and it was agreed not to explore this option further.

7.2.4 The lift location in Option 3, whilst it was acknowledged that it would improve access, was considered to have too great a visual impact to be taken forwards.

7.2.5 The MDT requested that the massing to the upper level of the King's Gate be explored further.

7.2.6 It was noted that the mass was primarily generated to accommodate a café offer of sufficient scale to be commercially viable, which is a key project objective. It was therefore agreed that exploring alternative locations and operational approaches to the Café must be a key focus of the next stage of design development.

7.2.7 It was also noted that the current visitor welcome sequence would be impacted by the design proposals and further exploration would be required, potentially necessitating adaptation / replacement of the recently implemented temporary visitor entrance 'porch.' This is to be explored further as the design develops.

7.3 Design Development

7.3.1 Design development, described through this Section of the report, therefore focuses on the massing to the upper level to the King's Gate, through an exploration of how the provision of the Café might vary.

7.3.2 Four options have been developed to explore the above. These have been called option 1a, 1b, 1c and 1d.

7.3.3 A further variable is also explored, which is how a new floor surface at the upper level of the King's Gate might relate to the existing building fabric around it. This has been explored separately, as this variable can be applied across the four options.

7.3.4 As key design elements are not yet fully resolved, the approach to visitor welcome has only been explored in outline and will require further design development.

7.4 Accessibility

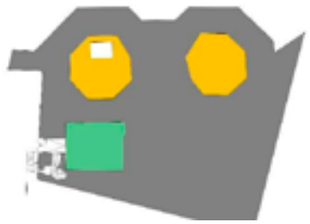
7.4.1 As design development is based on Option 1, as explored in Section 6.7, this places the lift within Tower 1. Accessibility is therefore as described in the diagrams and the text below.

7.4.2 The traffic light colour system indicates the following

- Green – Full accessibility to all users
- Amber – Access with modifications / Access for ambulant users only
- Red – Restricted access

7.4.3 Further details of the accessibility challenges of Kings Tower as existing can be found in Sections 4.9 & 6.2.

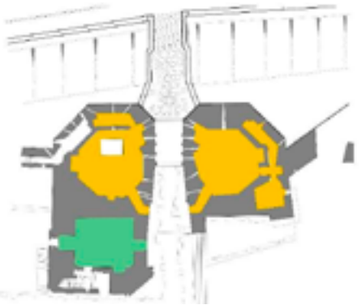
Basement level



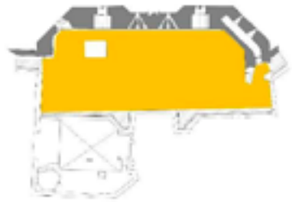
First Floor



Ground Floor



Second Floor



Mezzanine Level



7.5 Floor Plate to Upper Level of the King's Gate

7.5.1 This section of the report seeks to explore the relationship between different options for a floor plate formed at the upper level of the King's Gate.

7.5.2 It has become apparent that the setting of the height of the floorplate in relation to the existing historic fabric changes the relationship and suggests slightly different design solutions.

7.5.3 Three approaches have been explored:

- Floor plate at the level of existing upstanding walls.
- Floor plate slightly above most the upstanding walls, but with higher areas appearing through.
- Floor plate clearing all upstanding walls.

7.5.4 Consideration was given to having different floor levels, to allow the existing stone floor to continue to be used, which appears in Option 1a. This however creates significant accessibility challenges and therefore was dismissed.

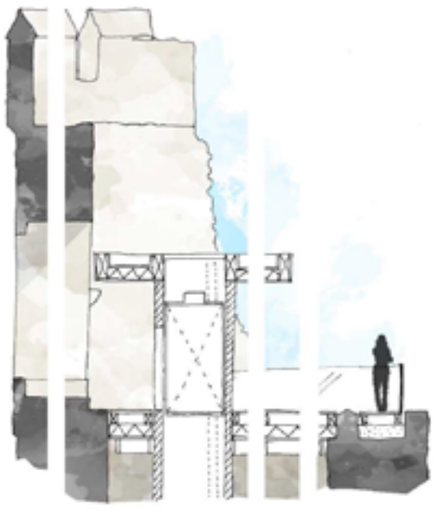


Figure 19: Floor plate at level of existing upstanding walls

7.5.5 Figure 19: Floor plate at level of existing upstanding wallsFigure 19 explores the floor plate being set at or slightly below the level of the existing upstanding walls to the upper level. This suggests a particular relationship with the surrounding walls, both in conceptually and in detail, which requires a lightweight approach to the balustrade, potentially frameless glass. This approach would also mean that links into the Tower voids from the perimeter of the King's Gate would require either fabric intervention or the introduction of steps / ramps, which would have access implications. The advantage of this approach is that the castle would remain legible through the new floor construction.

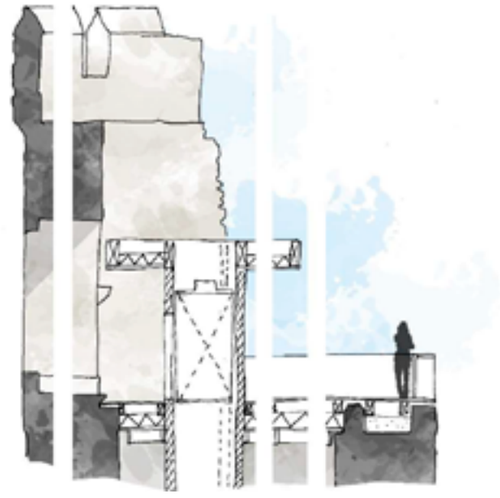


Figure 20: Floor plate above most upstanding walls

7.5.6 Figure 20 explores placing the floor plate above most of the upstanding walls, but with some higher areas, such as those above the existing roof to the education room, showing through. This option allows a variety of approaches to the balustrade, with the potential for a design in keeping with the original 'furniture' concept, thereby having depth and potentially having its outside line, broadly lining through with the castle wall. A visible gap would create the impression of the detail 'floating' above the castle wall.

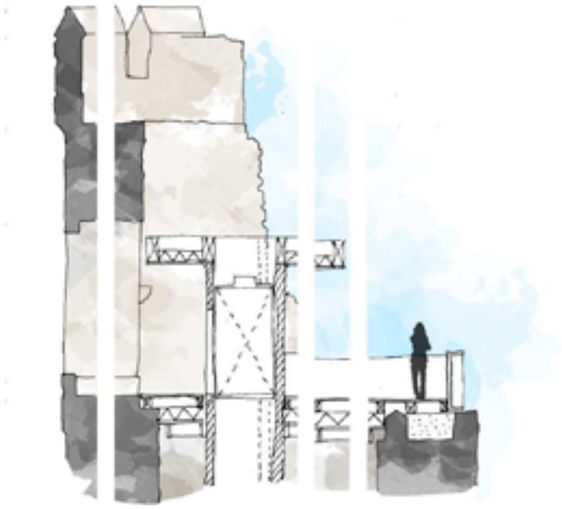


Figure 21: Floor plate clearing all upstanding walls

7.5.7 Figure 21 considers a floor plate which is set higher than the upstanding walls, floating above the whole of the upper level of the King's Gate. Balustrade options are similar to those in Figure 20, although illustrated is a balustrade set back from the castle wall, which promotes a more subservient relationship between the new and existing.

7.5.8 Both Figure 20 and Figure 21 would permit full unimpeded access across the upper level of the King's Gate, which is in keeping with the original concept and the project objectives.

7.6 Option 1a

7.6.1 Option 1a explores locating the café within Tower 1 at First Floor Level.

7.6.2 Many of the existing room functions are retained in the same location as existing within this option, however opportunities have been explored to increase the area of the shop and office accommodation.

7.6.3 New spaces introduced to the scheme include café, WC and external exhibition space.

7.6.4 The office accommodation is proposed to be retained in the current location, albeit rearranged to form an open plan office workspace, with stairs accessing additional office accommodation at a new mezzanine level.

7.6.5 The shop is retained in its current location, however a mezzanine level accessed within the shop has been introduced to provide additional floor area.

7.6.6 Option 1a proposes the introduction of a new floor plate at First Floor Level of Tower 3. This is currently identified as external exhibition but is a flexible space suitable for several external functions. The existing layout suggests historically there was access to a floor plate at this level and these accesses points would be retained.

7.6.7 This option also views the current education space in Tower 2 as a flexible space. This dual exhibition/education space allows the space to form part of the visitor experience when not occupied by groups.

7.6.8 This option explores the possibility of creating a new floor level/raised floor at Basement Level of Towers 1 and 2, reducing the current floor to ceiling from approximately 5m to 3m. This also creates the opportunity for the lift pit to be located within the void to reduce the need for deep excavation.

7.6.9 The proposed café area located within Tower 1, provides an area for a small hot drinks/cold food counter and sufficient area for 12 seated covers. The viewing platform at Level 2 is a flexible space which could provide an additional 10 12 outdoor seated covers, totalling 24.

7.6.10 Below is outlined the uses that can be found at each floor.

7.6.11 Basement:

- Visitor WC
- Storage

7.6.12 Ground Floor

- Visitor Orientation
- Gift shop
- Office/Admin facilities

7.6.13 Mezzanine

- Gift shop
- Office/Admin facilities

7.6.14 First Floor

- Café
- Education room
- External exhibition space

7.6.15 Second Floor

- Viewing deck

7.6.16 The viability of this option will need further investigation regarding the initial access through the opening at ground to Tower 1, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

7.6.17 The visual overleaf is developed from the point cloud data and as such is not of photographic quality, but permits views to be taken from multiple perspectives around the castle.

7.6.18 Areas

Basement	
WC	34sqm
Store	71 sqm
Ground Floor	
Visitor Oritentation	44sqm
Office	62sqm
Gift shop	40sqm
Mezzanine Level	
Office	36sqm
Gift Shop	19sqm
First Floor	
Education Room	39sqm
Servery	4sqm
Cafe	40sqm
External Exhibition	39sqm
Second Floor	
Viewing Platform	41sqm
Total	
	469sqm



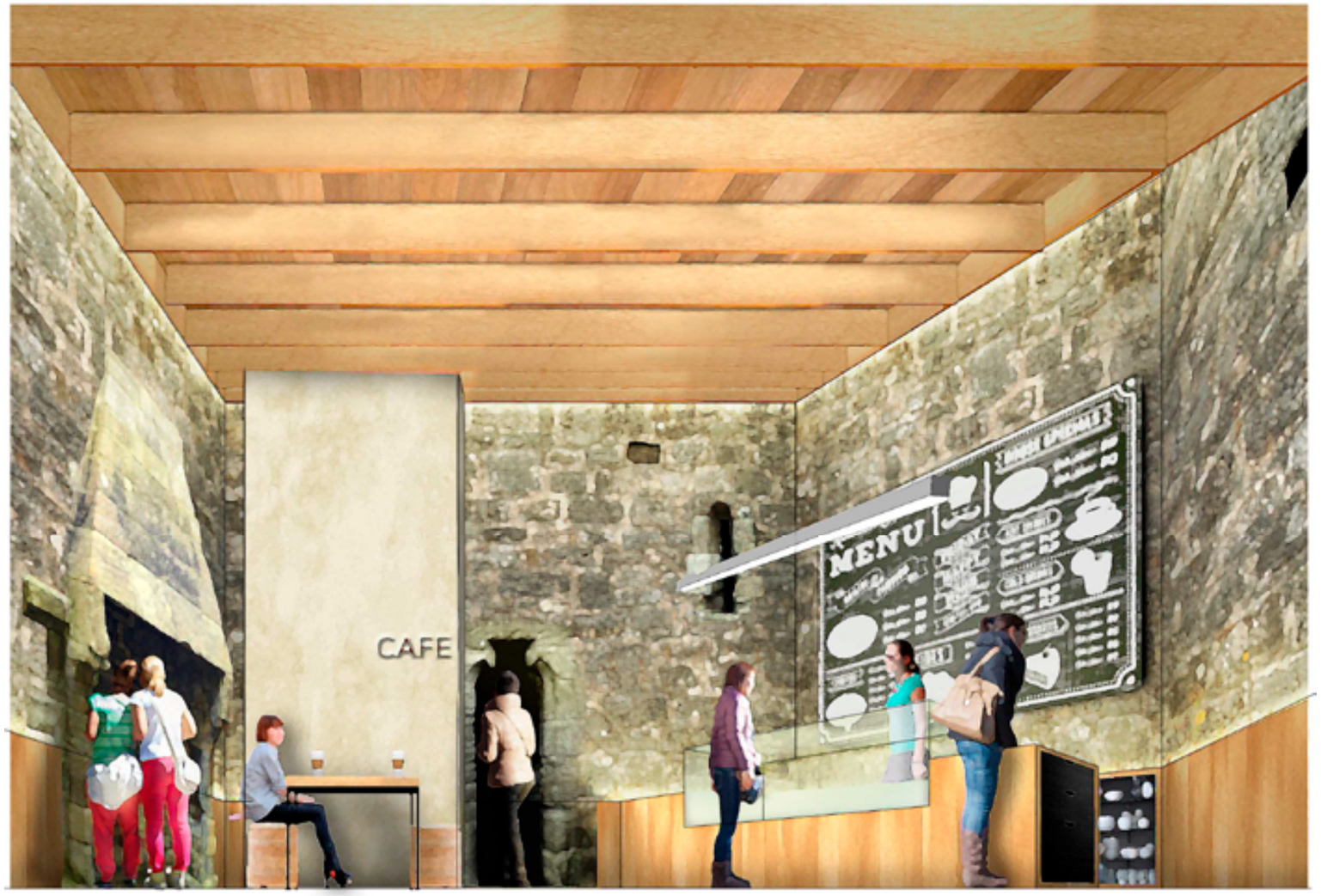
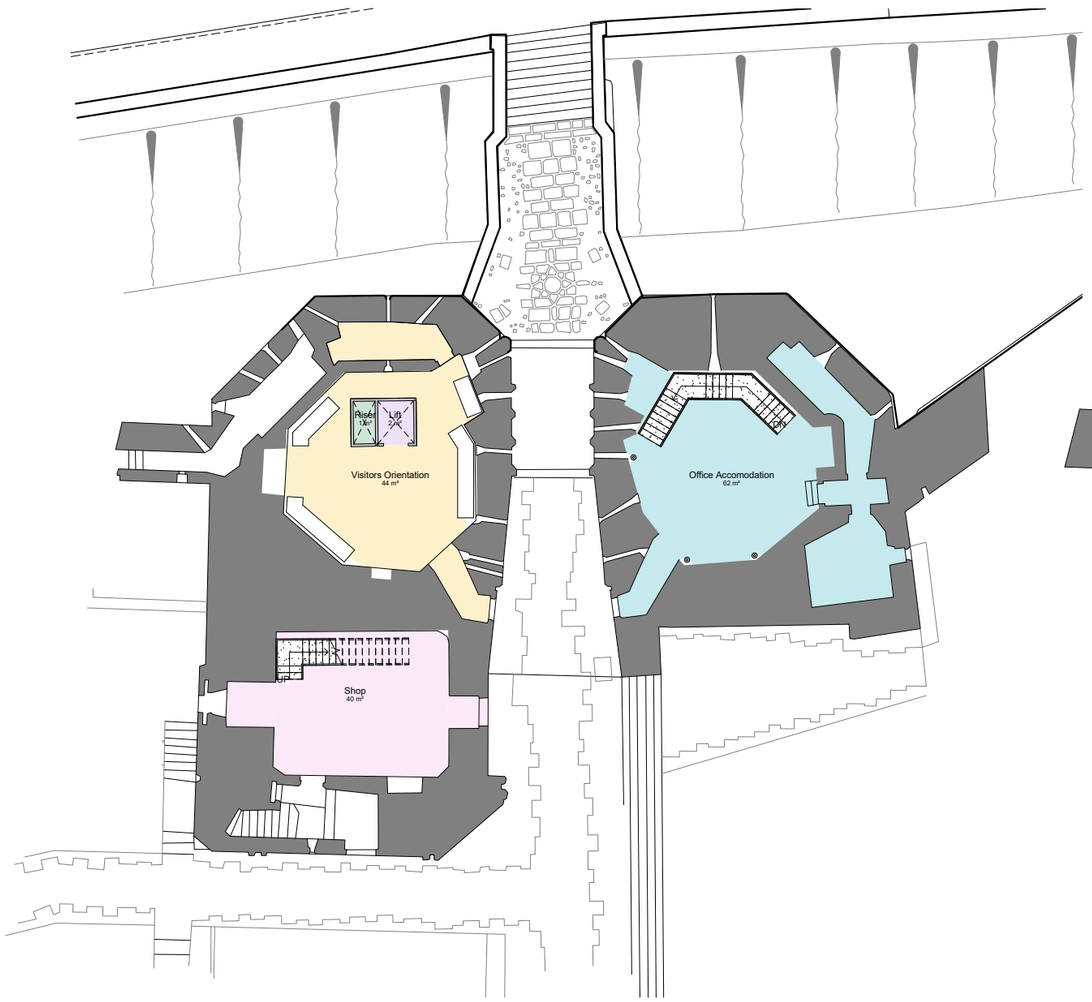


Figure 22- View of Tower 1 with Café function

Note:
Do note scale from this drawing.
Dimensions are to be checked on
site. If in doubt please ask

Room Legend

- Lift
- Riser
- Office Accomodation
- Shop
- Visitors Orientation

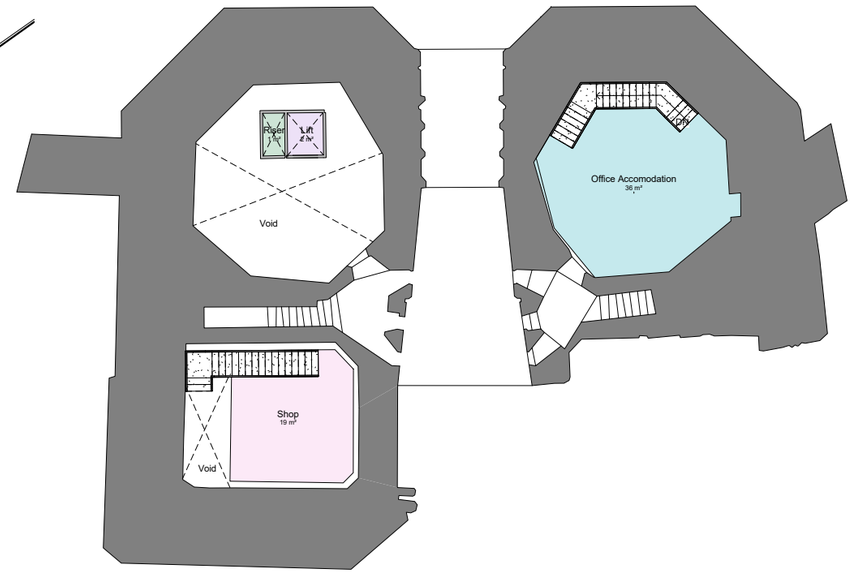


1 Level 0 - Option 1A

1 : 100

Room Legend

- Lift
- Riser
- Office Accomodation
- Shop



2 Level 0.5 - Option 1A

1 : 100

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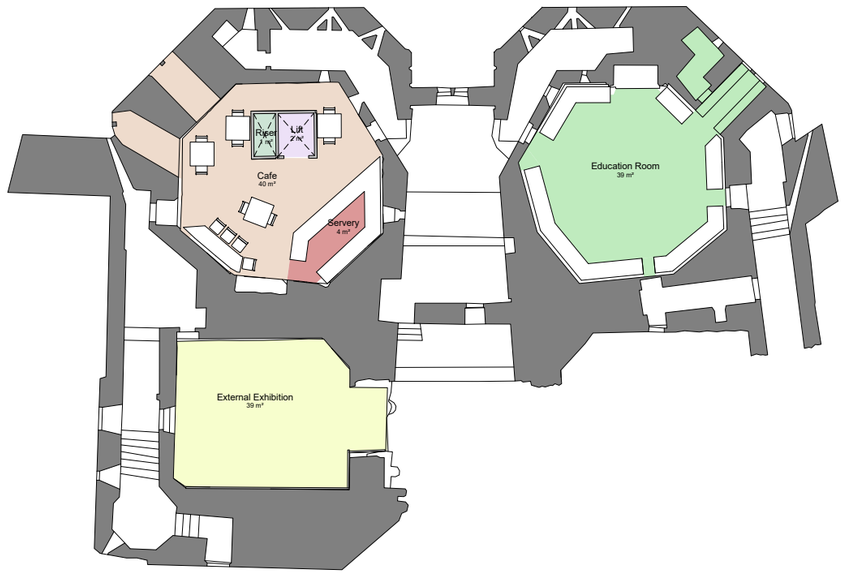
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Location	Caernarfon, Wales
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Checker	KC
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Orig Paper Size	A1
Status	

Drawing ref	Job No	Drawing No	Revision
	8307	101	B

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Room Legend

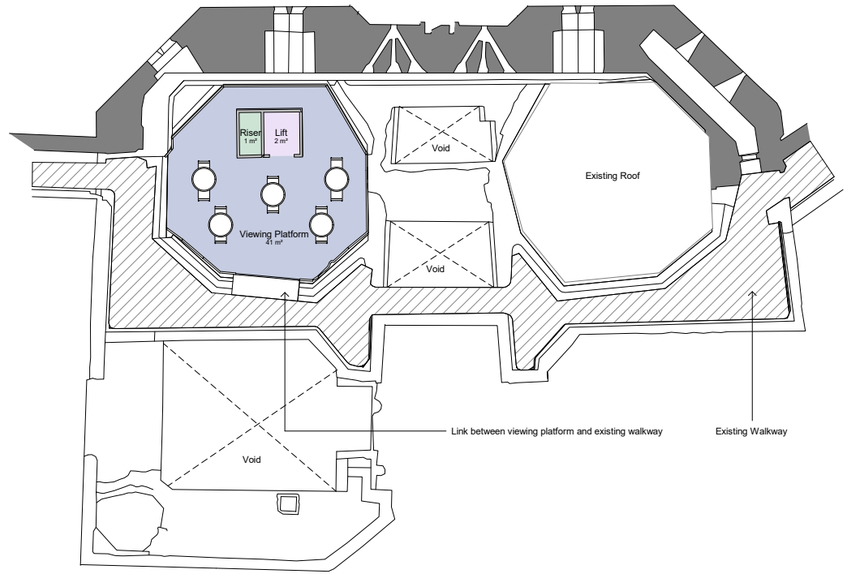
- Cafe
- Lift
- External Exhibition
- Riser
- Servery
- Education Room



1 **Level 1 - Option 1A**
1 : 100

Room Legend

- Lift
- Riser
- Viewing Platform



2 **Level 2 - Option 1A**
1 : 100

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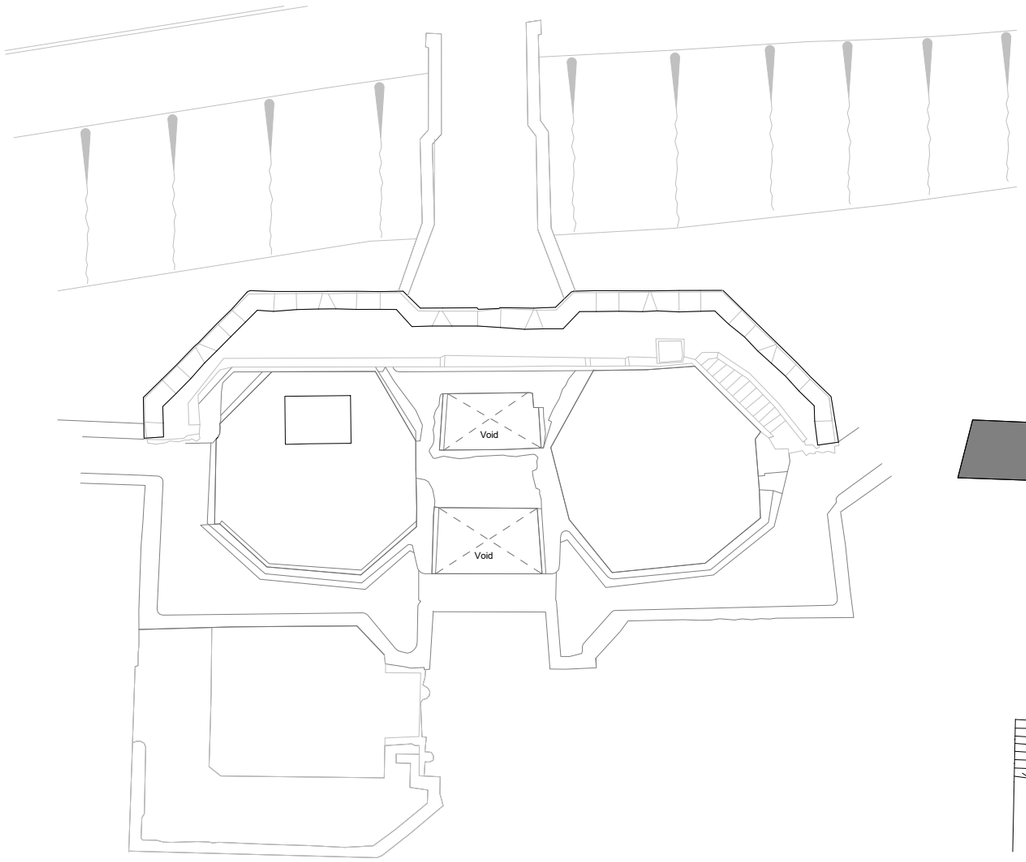
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Location	Caernarfon, Wales
Drawing ref	Option 1a

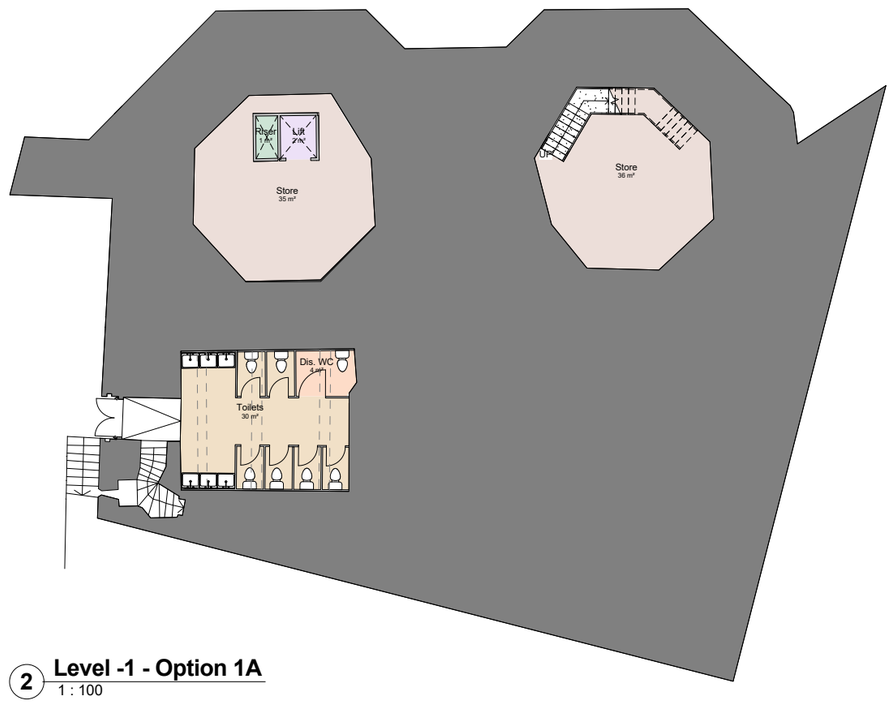
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	8307	102	B

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1 **Level Roof Option 1A**
1 : 100



2 **Level -1 - Option 1A**
1 : 100

Room Legend

- Dis. WC
- Lift
- Riser
- Store
- Toilets

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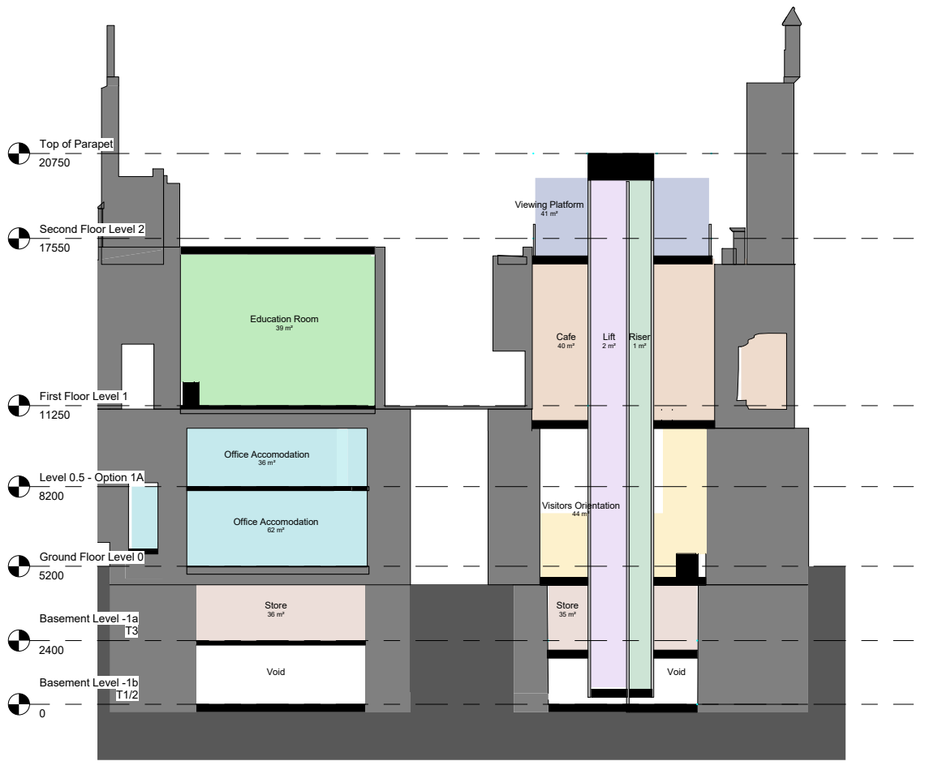
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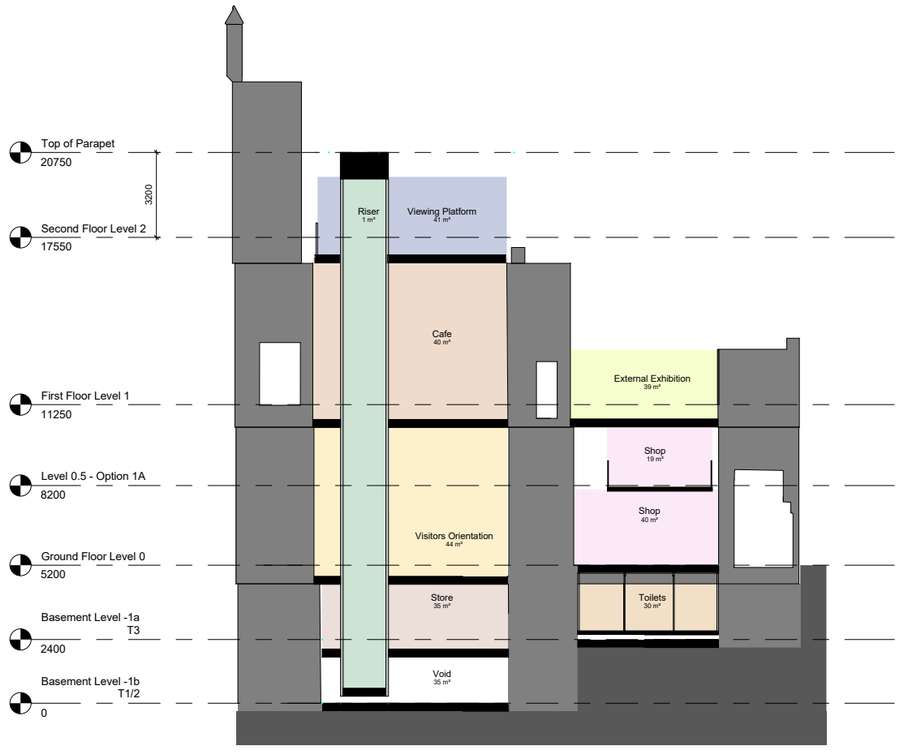
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	8307	**103**	**B**

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1 **Section 1 Option 1A**
1 : 100



2 **Section 2 Option 1A**
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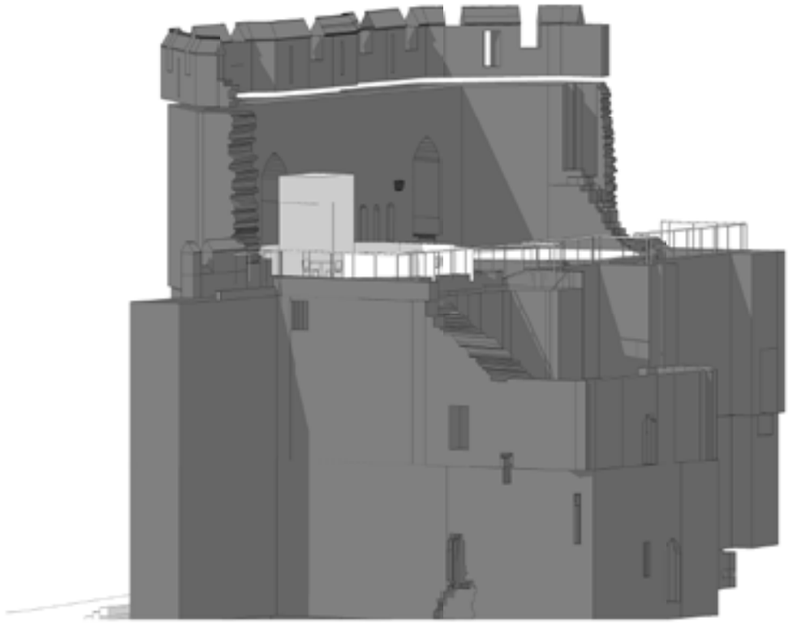
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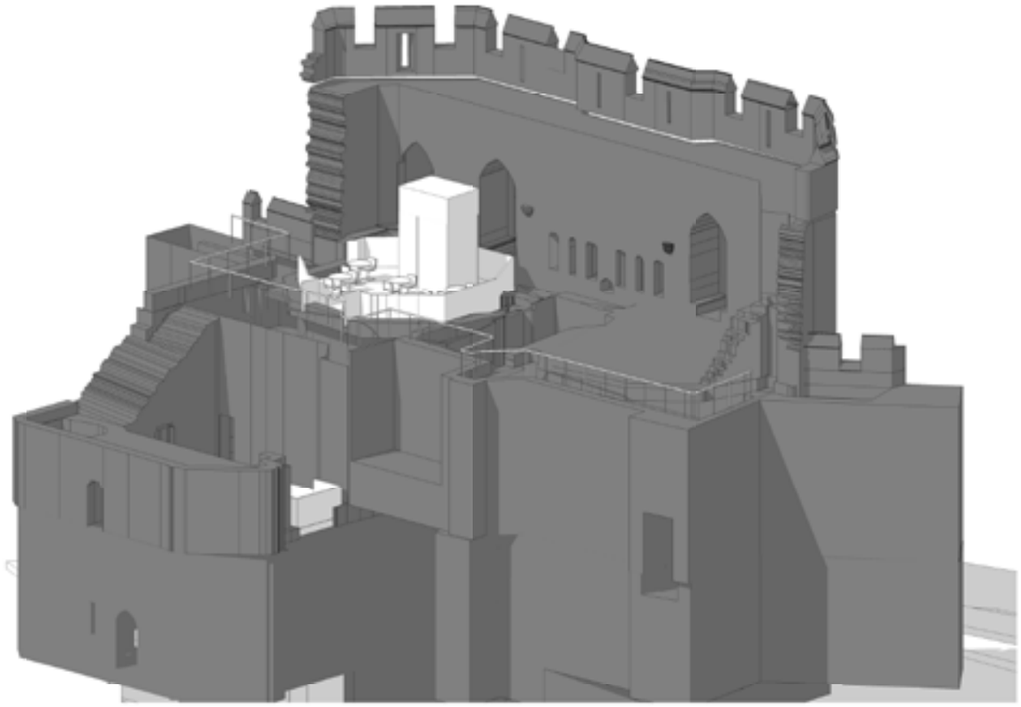
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1 View from eagle tower - Option 1A



2 View 2 Option 1A

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	8307	105	B

7.7 Option 1b

7.7.1 Many of the room functions in Option 1b are retained in the existing location, however opportunities have been explored to increase the area of the shop and office accommodation.

7.7.2 New spaces introduced to the scheme include café, WC and exhibition space.

7.7.3 The office accommodation is proposed to be retained in the current location, albeit rearranged to form an open plan office workspace, with stairs accessing additional office accommodation at a new mezzanine level.

7.7.4 The shop is retained in its current location, however a mezzanine level accessed within the shop has been introduced to provide additional floor area and small store.

7.7.5 Option 1b proposes the introduction of a new enclosed floor plate at first floor level of Tower 3. This is currently identified as a store, but can become a flexible space suitable for several different functions if required. The existing layout suggests historically there was access to a floor plate at this level and these accesses points would be retained.

7.7.6 This option also retains the education room in the current location, looking at minor interventions and layouts to improve the area and circulation within the space.

7.7.7 A new exhibition space is introduced in Tower 1 at first floor, providing new interpretation space, currently missing from The King's Gate.

7.7.8 This option explores the possibility of creating a new floor level/raised floor at the basement level of Towers 1 and 2, reducing the current floor to ceiling from approximately 5m to 3m. This also creates the opportunity for the lift pit to be located within the void to reduce the need for deep excavation.

7.7.9 A proposed servery capable of providing small hot drinks/cold food is located at the top of Tower 1 and second floor. This option has no sheltered seating area, but a viewing platform which can accommodate external furniture and provide area for 40 covers.

7.7.10 Below is outlined the uses that can be found at each floor.

7.7.11 Basement:

- Visitor WC
- Storage

7.7.12 Ground Floor

- Visitor Orientation
- Gift shop
- Office/Admin facilities

7.7.13 Mezzanine

- Gift shop
- Store
- Office/Admin facilities

7.7.14 First Floor

- Store
- Education room
- Exhibition space

7.7.15 Second Floor

- Servery
- Viewing deck

7.7.16 The viability of this option will need further investigation regarding the initial access through the opening at ground to Tower 1, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

7.7.17 Areas

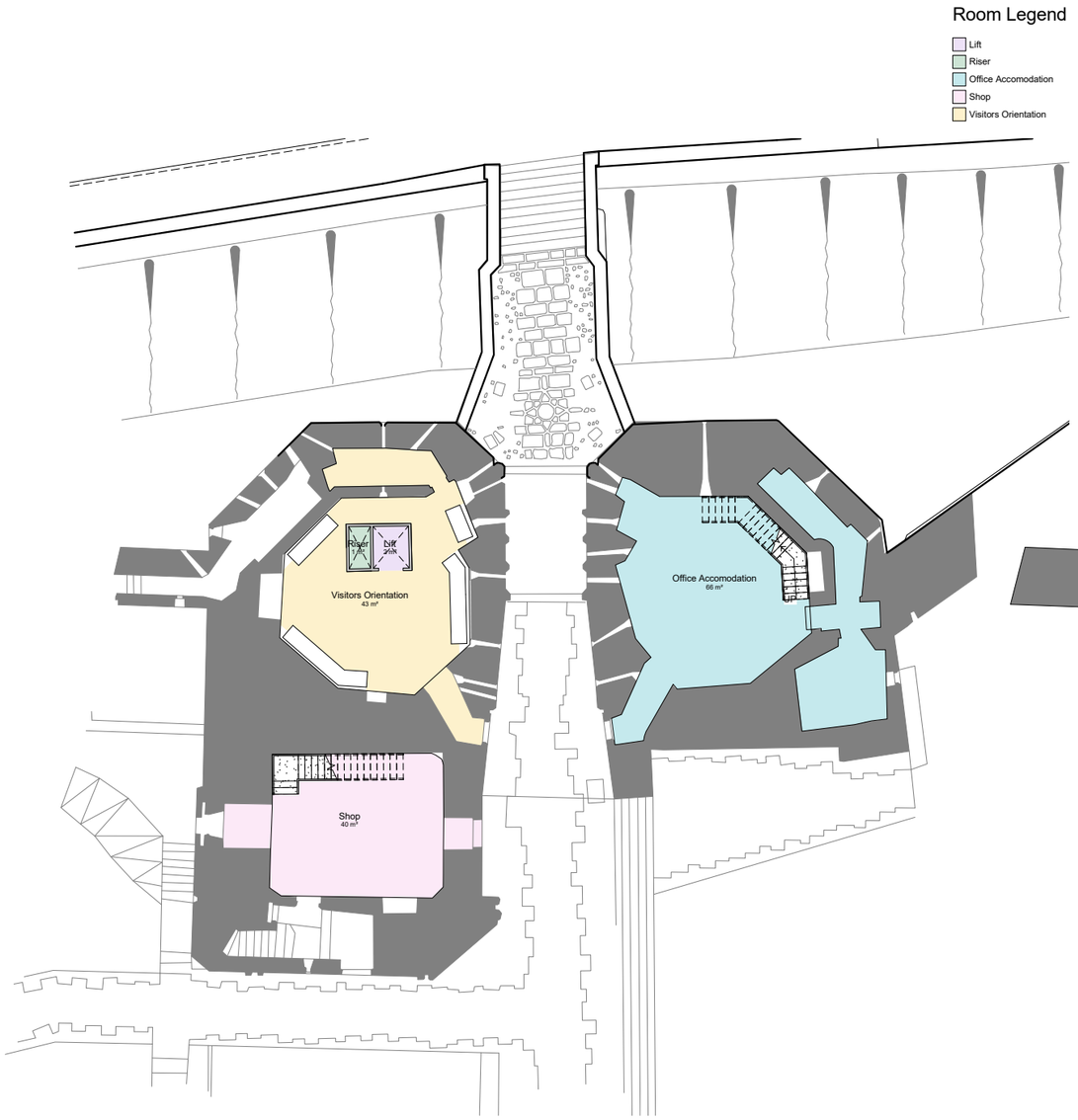
Basement	
WC	34sqm
Store	71 sqm
Ground Floor	
Visitor Oritentation	43sqm
Office	66sqm
Gift shop	40sqm
Mezzanine Level	
Office	36sqm
Gift Shop	16sqm
Store	8sqm
First Floor	
Education Room	39sqm
Store	38sqm
Exhibition	46sqm
Second Floor	
Kitchen/Servery	6sqm
Viewing Platform	175sqm
Total	
	618sqm



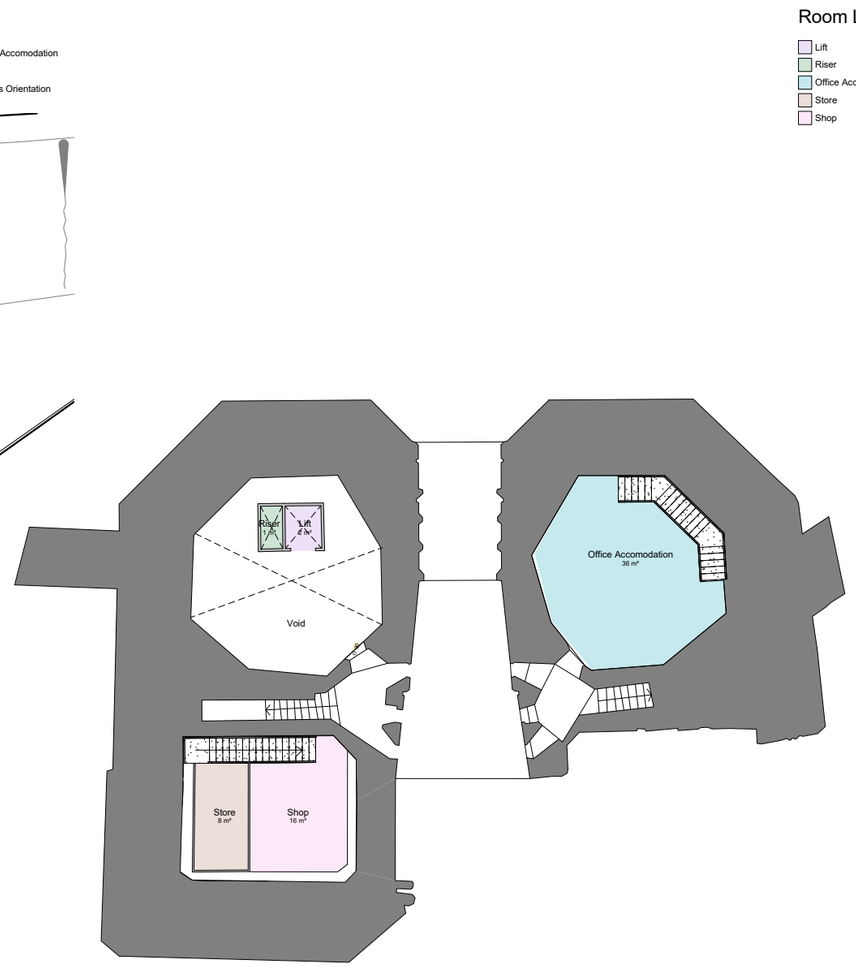


Figure 23 - Visual of Tower 1 exhibition offer

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1 **Level 0 - Option 1B**
1 : 100



2 **Level 0.5 - Option 1B**
1 : 100

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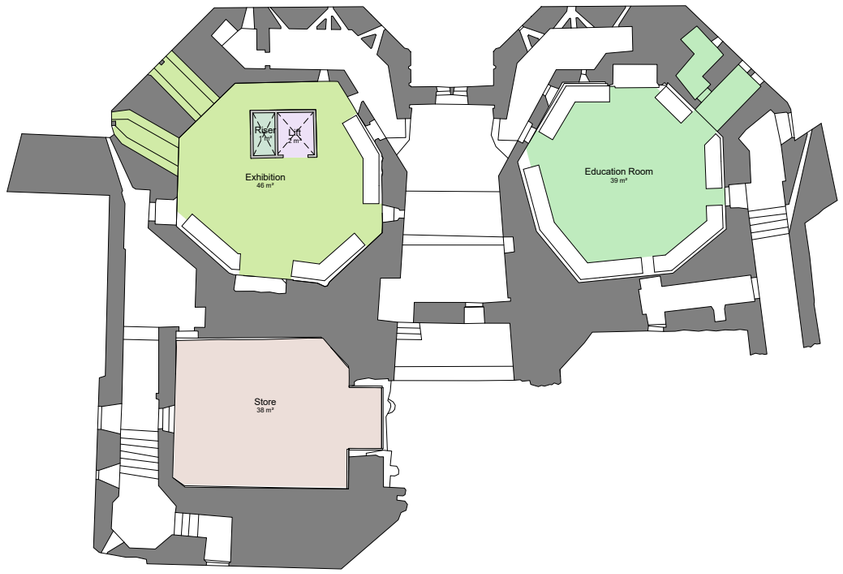
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Room Legend

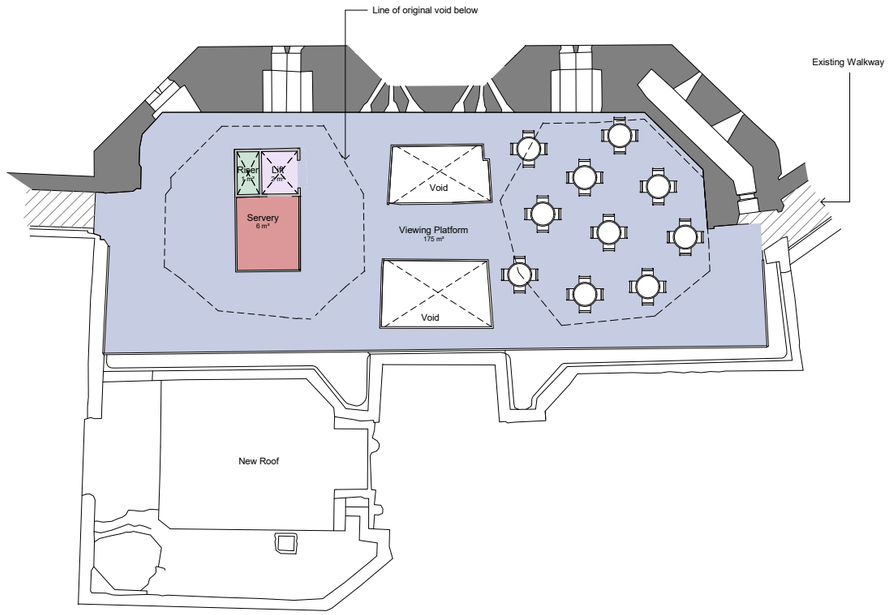
- Lift
- Exhibition
- Riser
- Store
- Education Room



1 Level 1 - Option 1B
1 : 100

Room Legend

- Lift
- Riser
- Servery
- Viewing Platform



2 Level 2 - Option 1B
1 : 100

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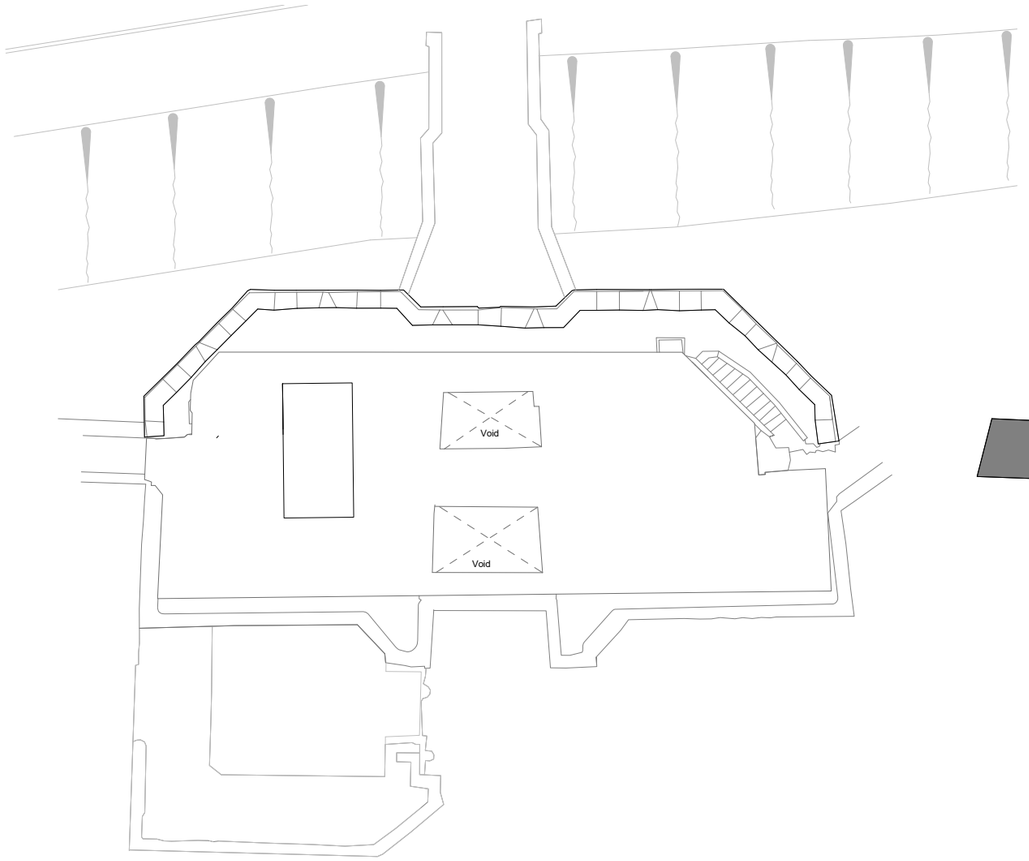
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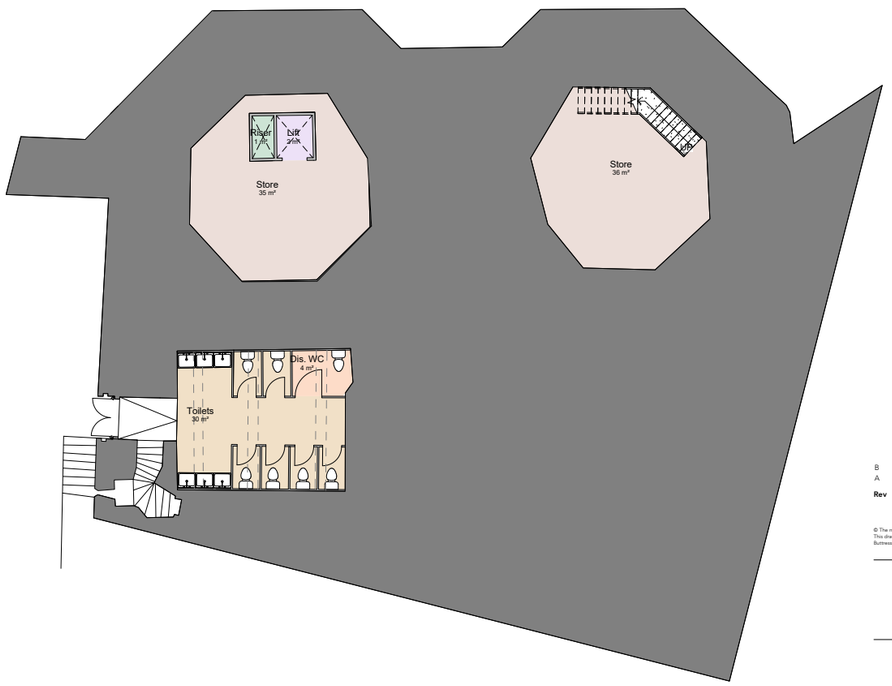
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1 **Level Roof Option 1B**
1 : 100



2 **Level -1 - Option 1B**
1 : 100

Room Legend

- Dis. WC
- Lift
- Riser
- Store
- Toilets

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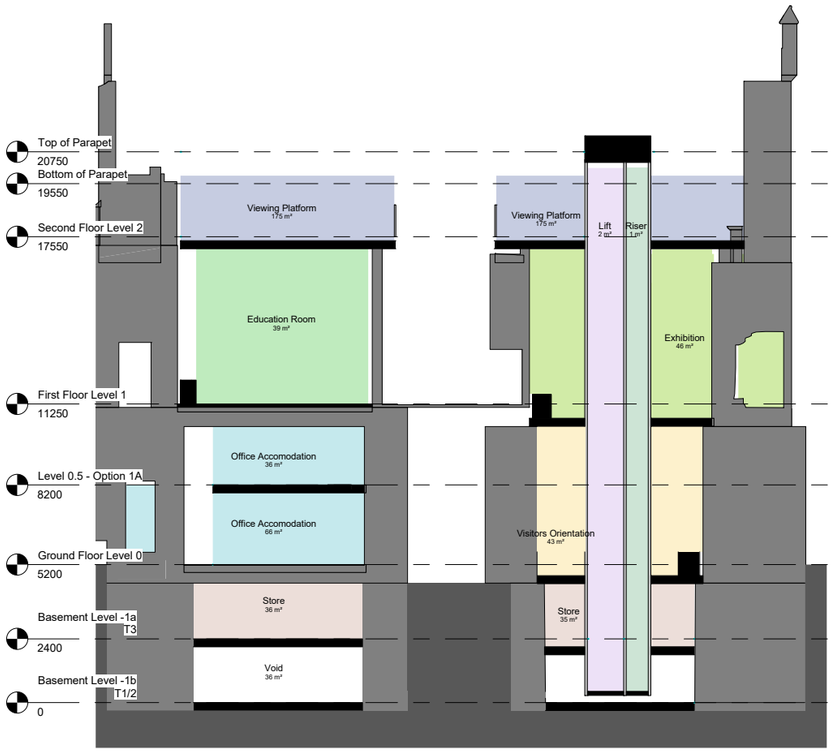
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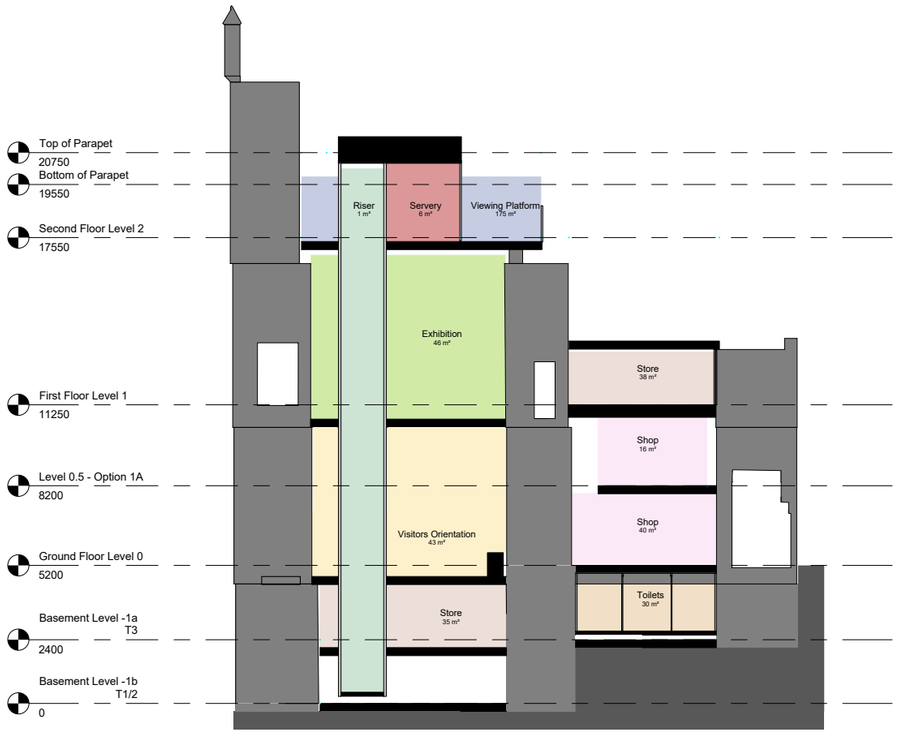
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1 **Section 1 Option 1B**
1 : 100



2 **Section 2 Option 1B**
1 : 100

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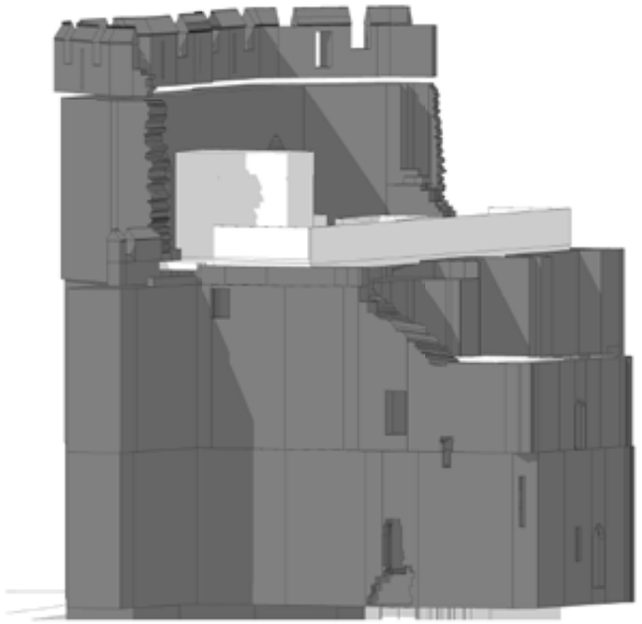
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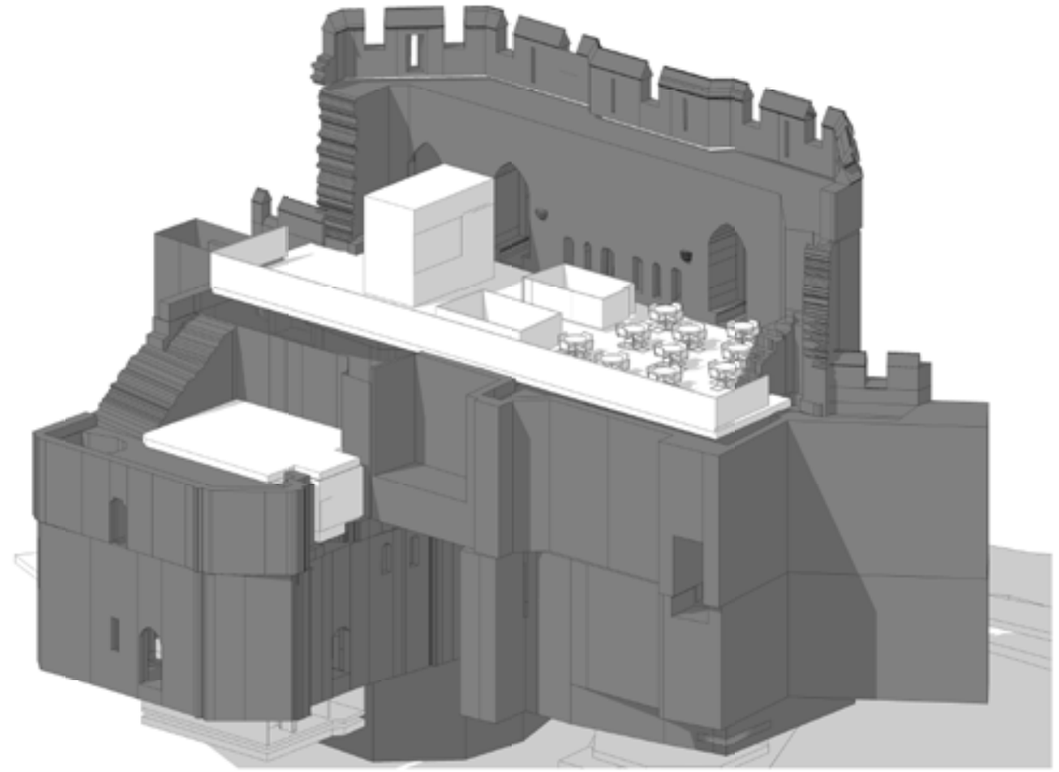
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Project Title	Caernarfon Castle - Kings Gate
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Location	Caernarfon, Wales
Drawing ref	Option 1b
Date	
Checker	Checker
Scale	1 : 100
Orig Paper Size	A1
Status	

Drawing ref	Job No	Drawing No	Revision
	8307	109	B



2 View from eagle tower Option 1B



1 View 2 Option 1B

Note:
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Location	Caernarfon, Wales
Drawing ref	Option 1b
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Checker	Checker
Scale	
Orig Paper Size	A1
Status	

Drawing ref	Job No	Drawing No	Revision
	8307	110	B



7.8 Option 1c

7.8.1 Option 1c retains many of the room functions within the existing locations, while introducing a covered café offer at second floor.

7.8.2 New spaces introduced to the scheme include café, WC and exhibition space.

7.8.3 The office accommodation is proposed to be retained in the current location, albeit rearranged to form an open plan office workspace, with stairs accessing the mezzanine store level above.

7.8.4 Option 1c proposes the introduction of a new enclosed exhibition space within Tower 3. The existing layout suggests historically there was access to a floor plate at this level and these accesses points would be retained.

7.8.5 This new enclose exhibition space within Tower 3 can act as a multi purpose space, offering an additional education/ group facility if required.

7.8.6 This option retains the education space as a room used primarily for education, with opportunities to become a hired space.

7.8.7 This option explores the possibility of creating a new floor level/raised floor at basement level of Towers 1 and 2, reducing the current floor to ceiling from approximately 5m to 3m. This also creates the opportunity for the lift pit to be located within the void to reduce the need for deep excavation.

7.8.8 The proposed kitchen and café area is large enough for a hot drinks/cold food servery with sufficient area for 48 covers under shelter.

7.8.9 Within this option the café is not a weather tight space but is left open to the elements.

7.8.10 Below is outlined the uses that can be found at each floor.

7.8.11 Basement:

- Visitor WC
- Storage

7.8.12 Ground Floor

- Visitor orientation
- Gift shop
- Office/Admin facilities

7.8.13 Mezzanine

- Exhibition
- Office/Admin facilities
- Gift shop

7.8.14 First Floor

- Education room
- Exhibition space

7.8.15 Second Floor

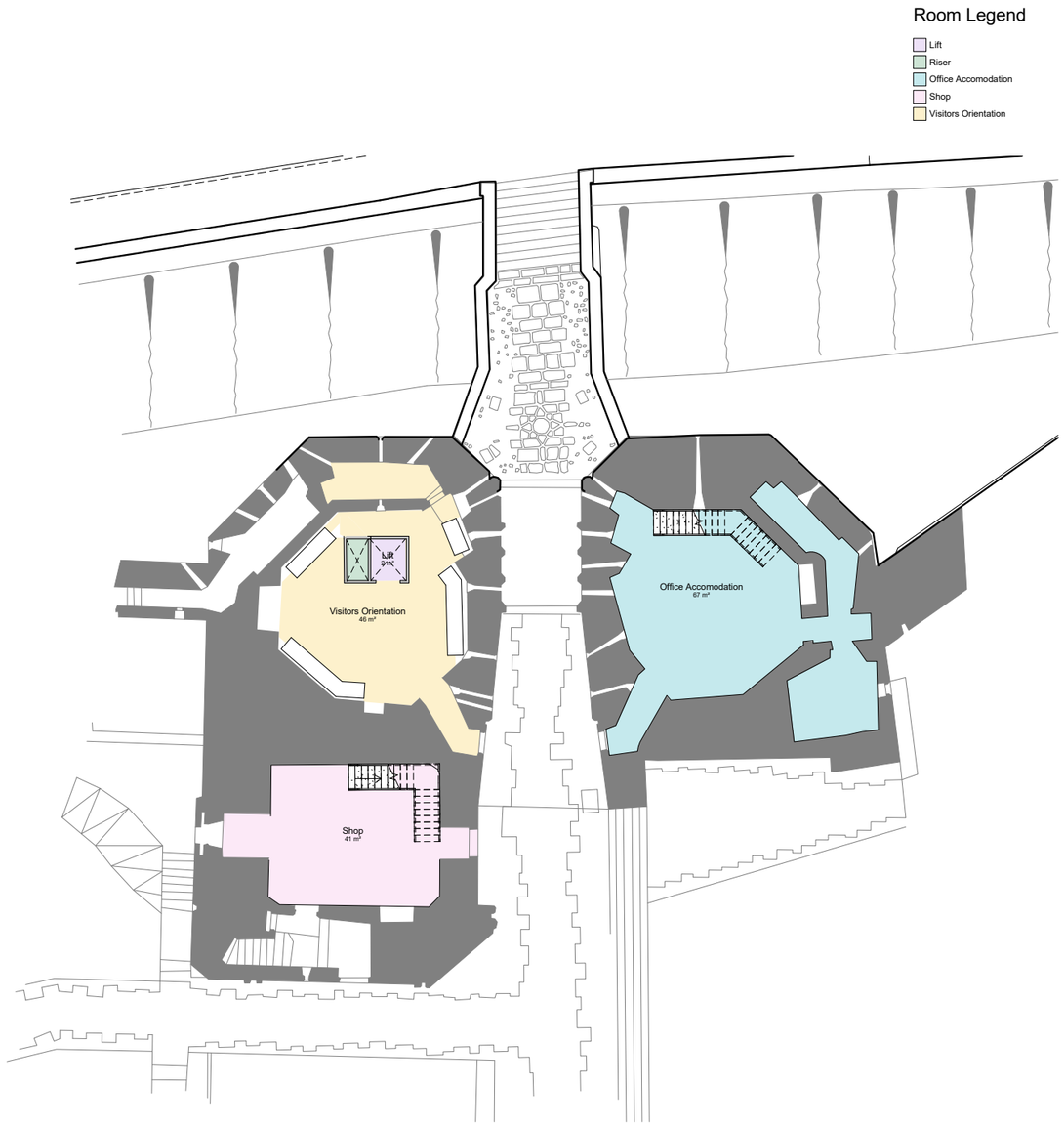
- Servery
- Covered seating area
- Viewing platform

7.8.16 The viability of this option will need further investigation regarding the initial access through the opening at ground to Tower 1, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

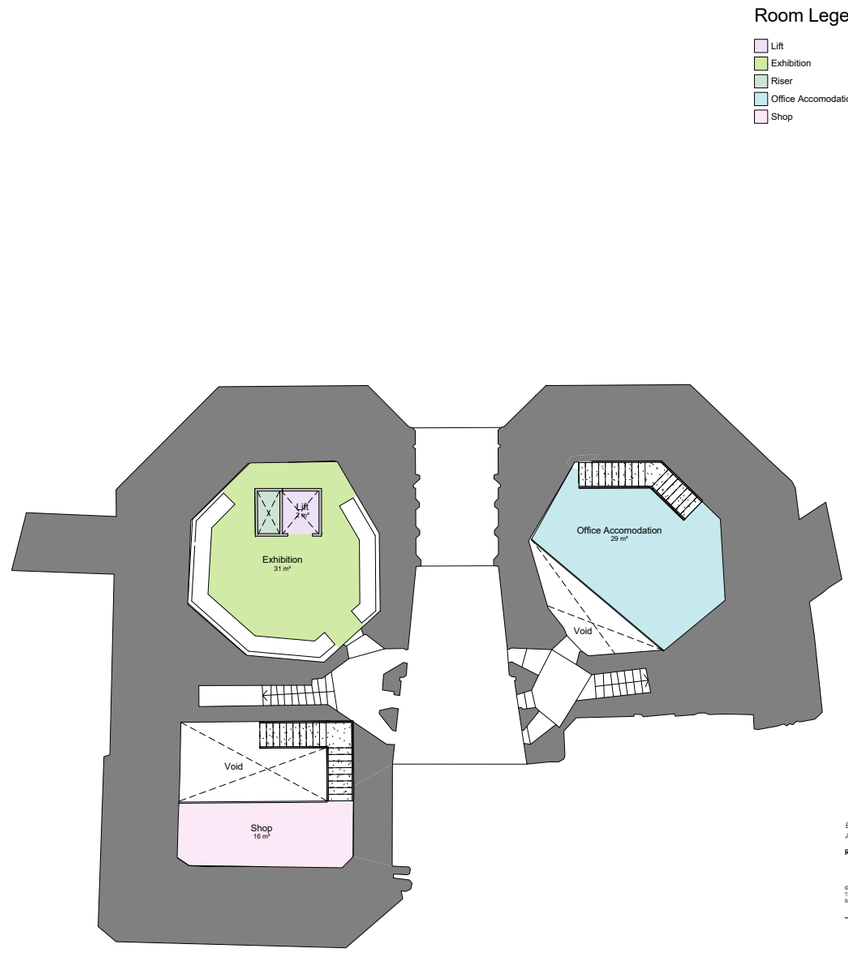
7.8.17 Areas

Basement	
WC	34sqm
Store	71 sqm
Ground Floor	
Visitor Orientation	46sqm
Office	67sqm
Gift shop	40sqm
Mezzanine Level	
Office	29sqm
Exhibition	31sqm
Gift Shop	16sqm
First Floor	
Education Room	39sqm
Exhibition	82sqm
Second Floor	
Kitchen/Servery	14sqm
Covered Café Seating	95sqm
Viewing Platform	74sqm
Total	
	638sqm

Note:
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1 **Level 0 - Option 1C**
1 : 100



2 **Level 0.5 - Option 1C**
1 : 100

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Project Title	Caernarfon Castle - Kings Gate
Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b

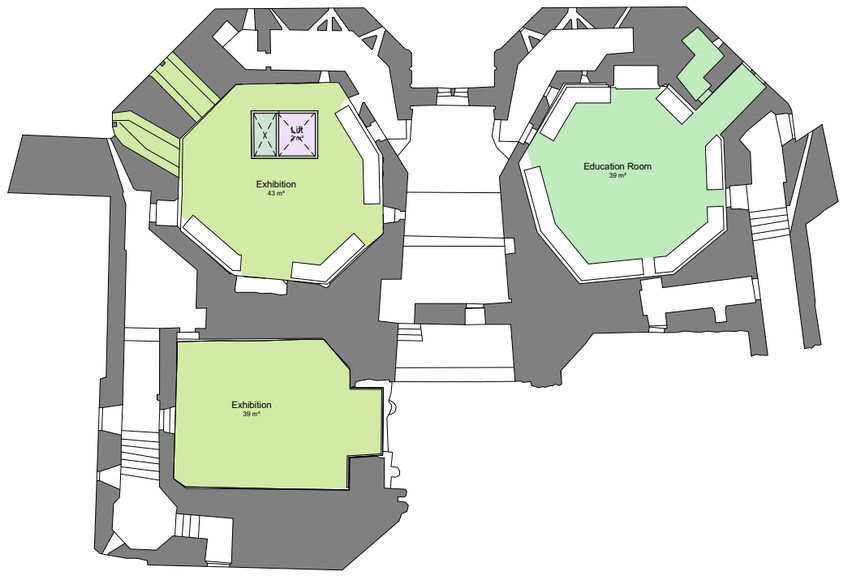
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	8307	**111**	**B**

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Room Legend

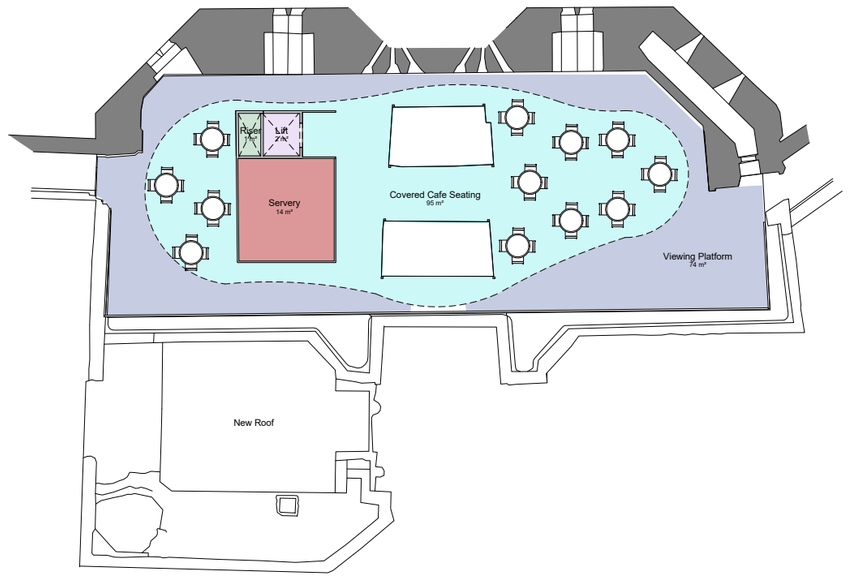
- Lift
- Exhibition
- Riser
- Education Room



1 Level 1 - Option 1C
1 : 100

Room Legend

- Covered Cafe Seating
- Lift
- Riser
- Servery
- Viewing Platform
- Void



2 Level 2 - Option 1C
1 : 100

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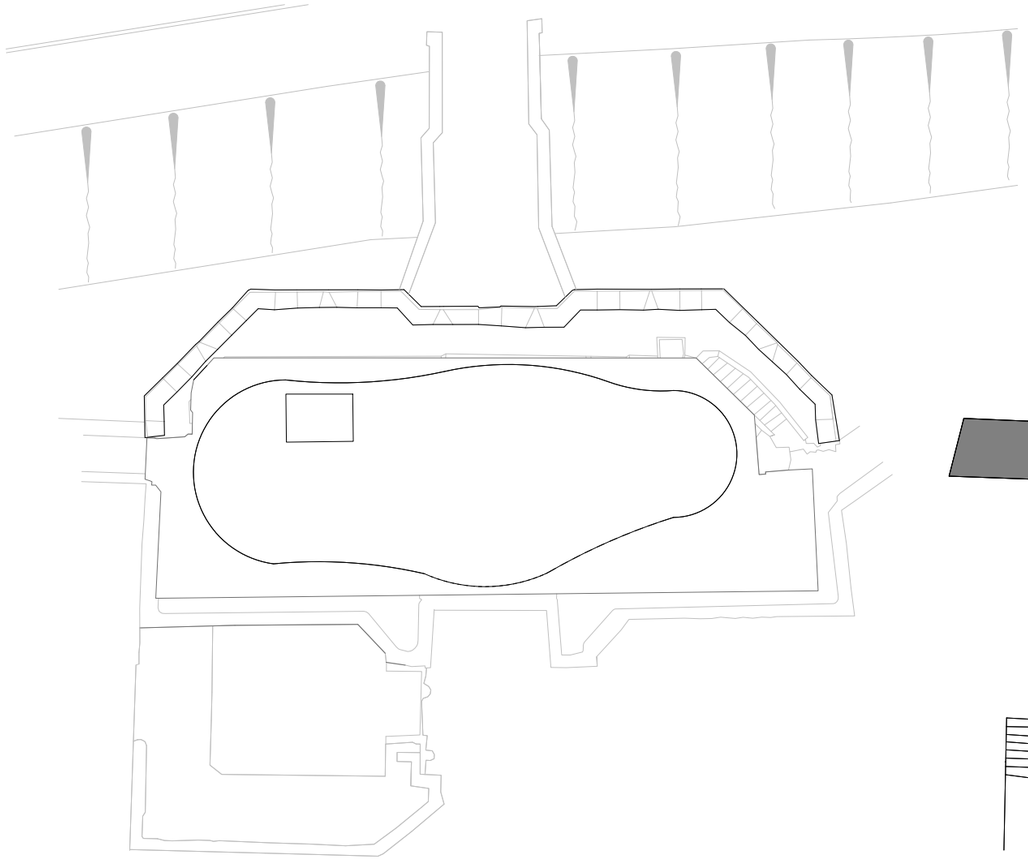
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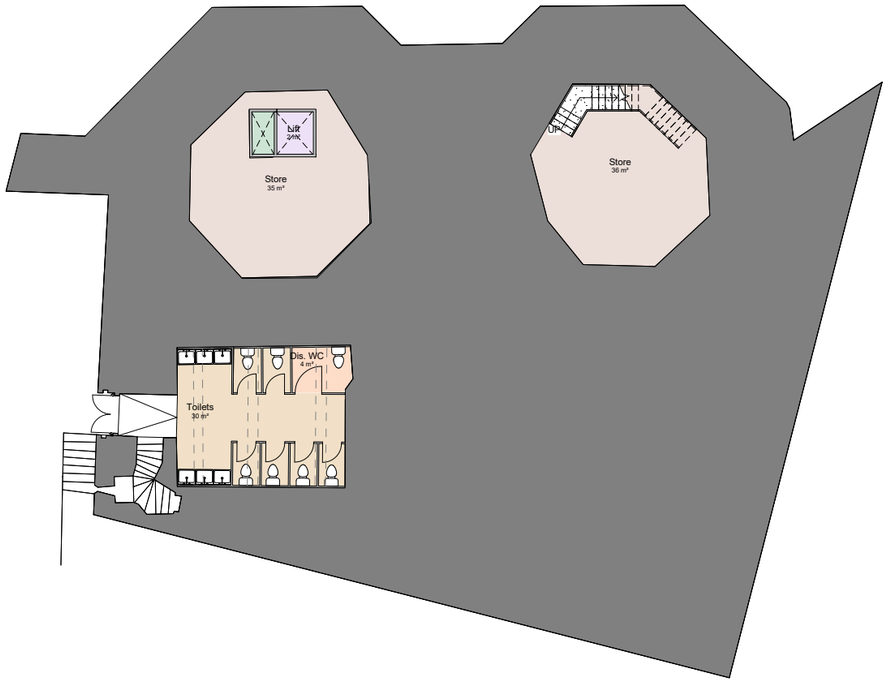
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b

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		Status	

Drawing ref	Job No	Drawing No	Revision
	8307	112	B



2 **Level Roof Option 1C**
1 : 100



1 **Level -1 - Option 1C**
1 : 100

Room Legend

- Dis. WC
- Lift
- Riser
- Store
- Toilets

Note:
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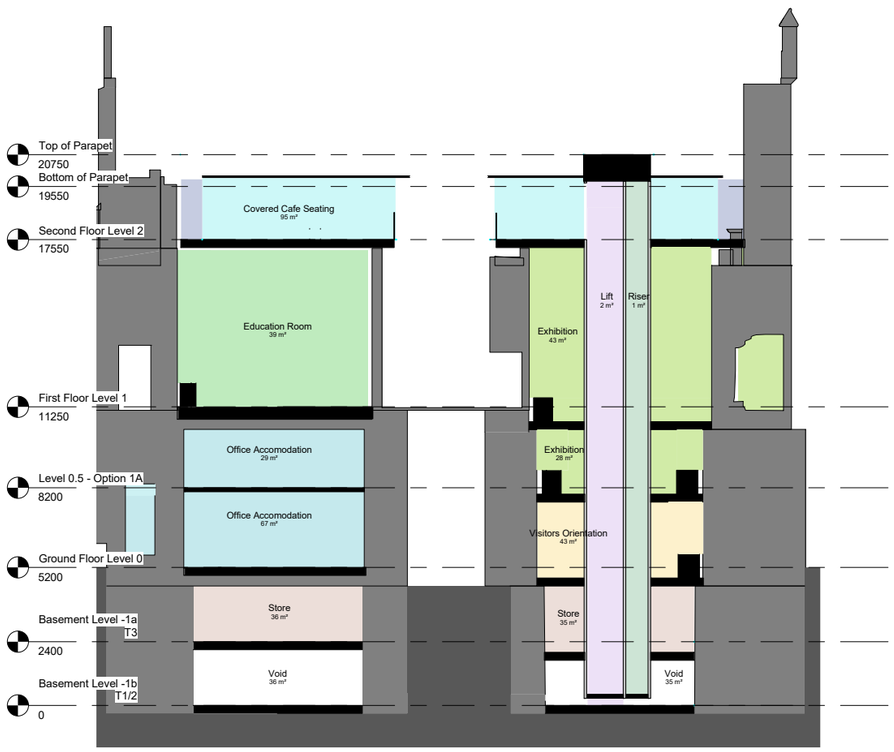
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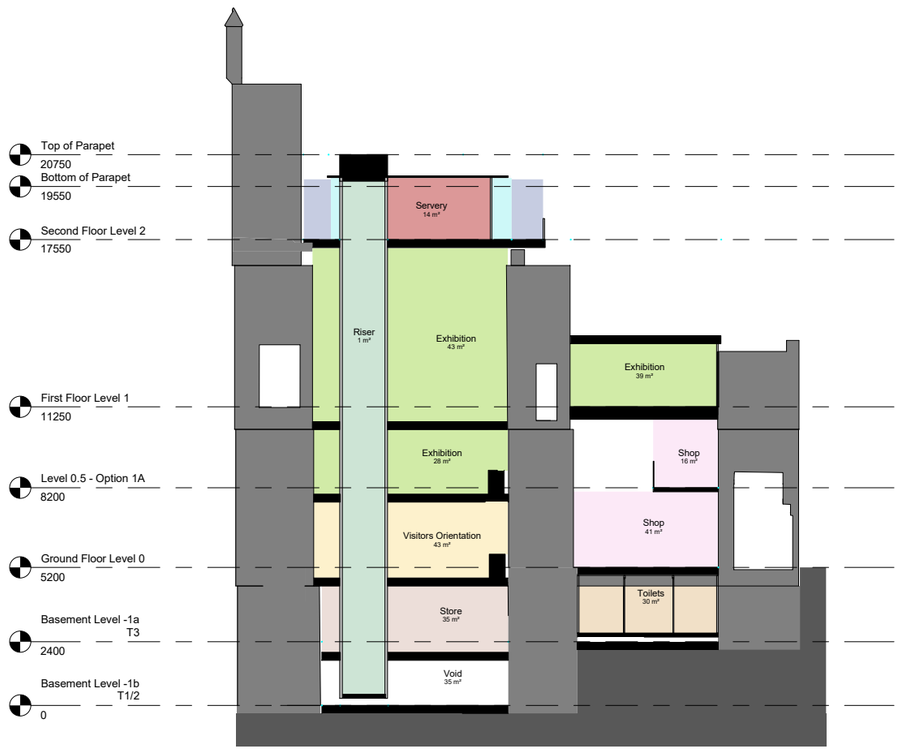
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b
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Status	

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	8307	113	B

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1 **Section 1 Option 1C**
1 : 100



2 **Section 2 Option 1C**
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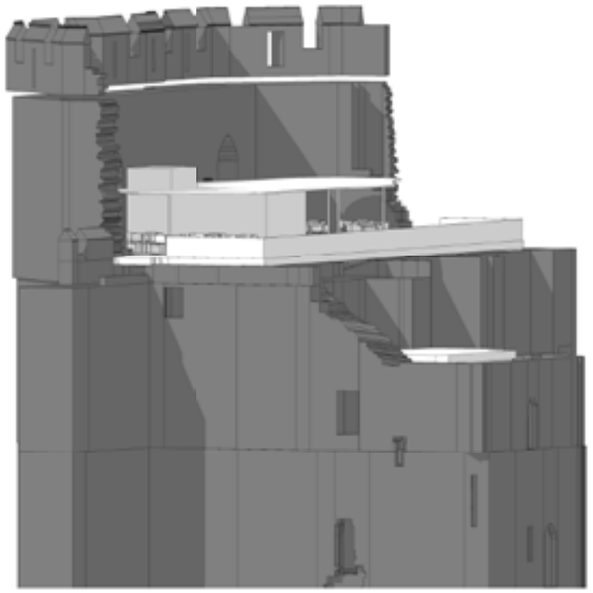
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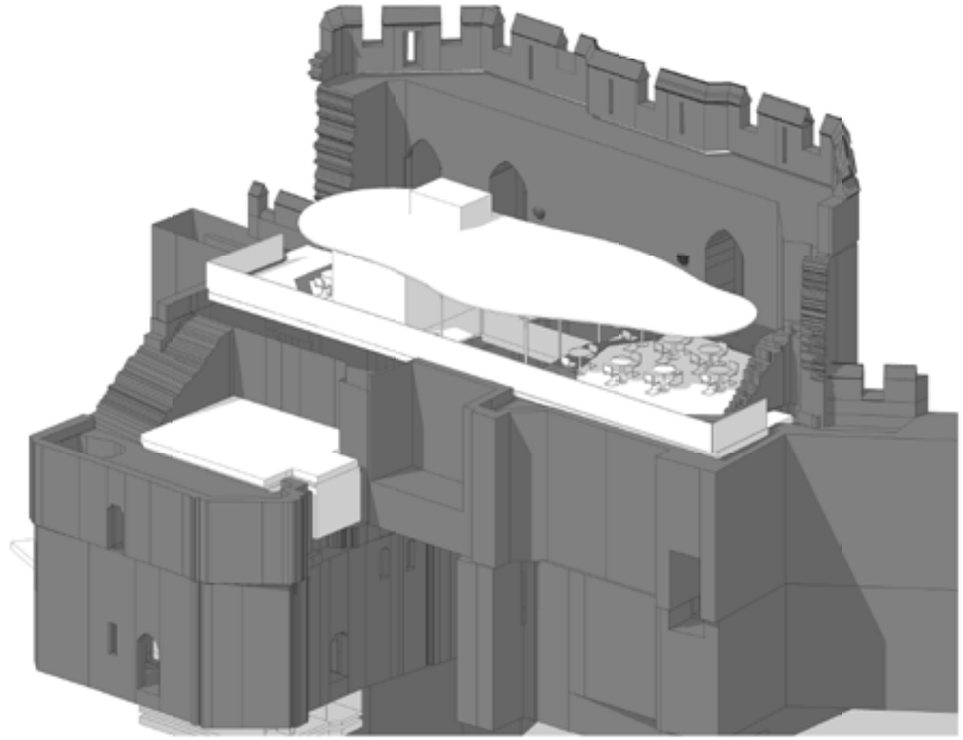
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	Option 1b

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Drawing ref	Job No	Drawing No	Revision
	8307	114	B



2 View from eagle tower Option 1C



1 View 2 Option 1C

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Drawing ref	Job No	Drawing No	Revision
	8307	**115**	**B**

7.9 Option 1d

7.9.1 Option 1d retains many of the room functions within the existing locations, while introducing a café at second floor.

7.9.2 New spaces introduced to the scheme include café, WC and exhibition space.

7.9.3 The office accommodation is proposed to be retained in the current location, albeit rearranged to form an open plan office workspace, with stairs accessing the mezzanine store level above.

7.9.4 Option 1d proposes the introduction of a new external viewing platform within Tower 3. The existing layout suggests historically there was access to a floor plate at this level and these accesses points would be retained.

7.9.5 This viewing platform can also act as an external exhibition space.

7.9.6 This option also transforms the current education space into a dual exhibition/education space allowing the space to form part of the visitor experience when not occupied by school groups.

7.9.7 This option explores the possibility of creating a new floor level/raised floor at basement level of Towers 1 and 2, reducing the current floor to ceiling from approximately 5m to 3m. This also creates the opportunity for the lift pit to be located within the void to reduce the need for deep excavation.

7.9.8 The proposed kitchen and café area is large enough for a small hot drinks/hot food counter with sufficient area for 52 covers under shelter.

7.9.9 The café proposal within this option provides the most protection against the elements.

7.9.10 Below is outlined the uses that can be found at each floor.

7.9.11 Basement:

- Visitor WC
- Storage

7.9.12 Ground Floor

- Visitor welcome
- Gift shop
- Office/Admin facilities

7.9.13 Mezzanine

- Education Room
- Gift shop
- Office/Admin facilities

7.9.14 First Floor

- External exhibition space/Viewing deck
- Exhibition space
- Education room

7.9.15 Second Floor

- Kitchen/servery
- Internal seating
- Viewing deck

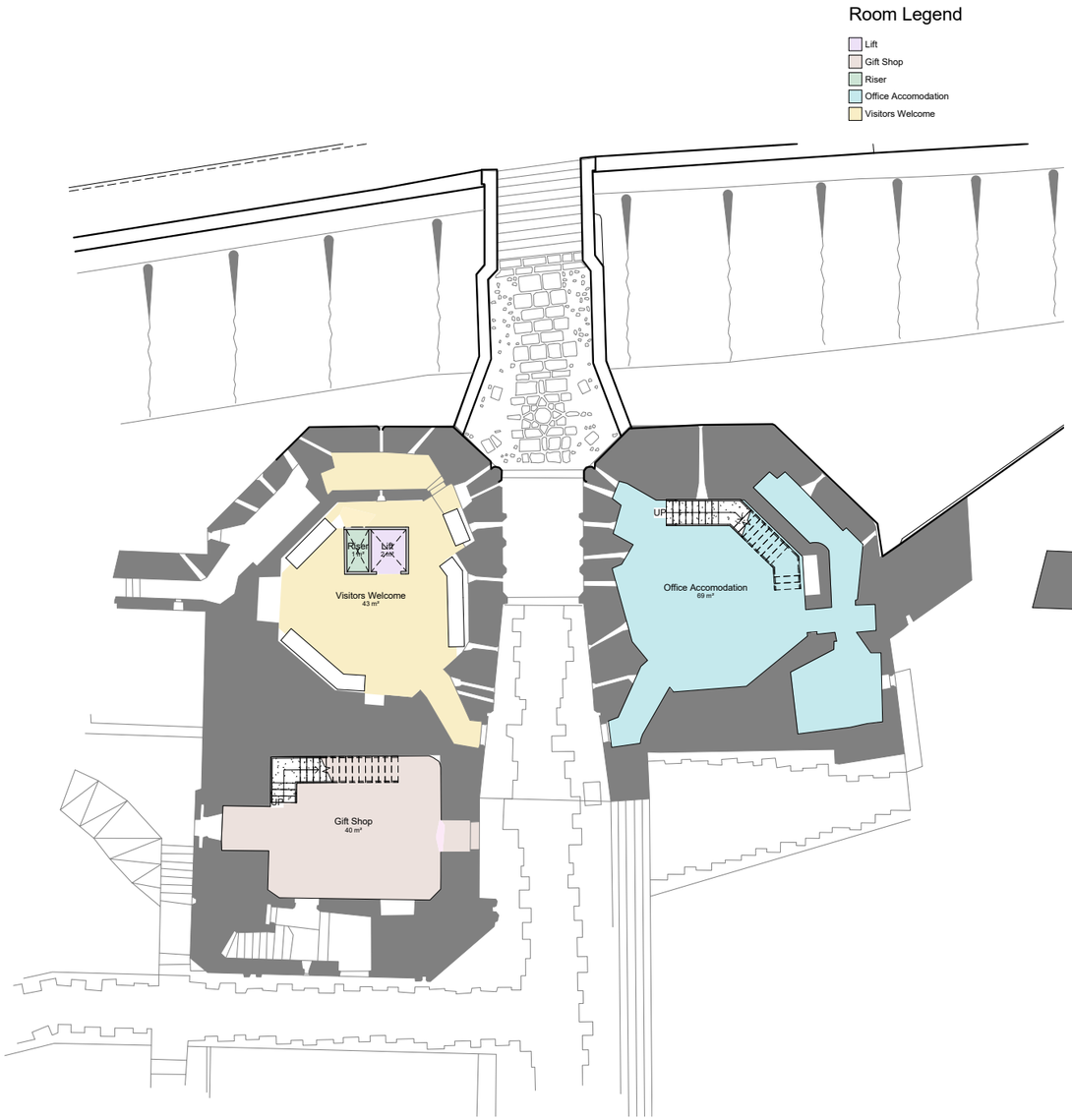
7.9.16 The viability of this option will need further investigation regarding the initial access through the opening at ground to tower one, as the threshold levels in this area are higher than the access level. Further details of the existing site access issues can be found in Sections 4.9 & 6.2.

7.9.17 Areas

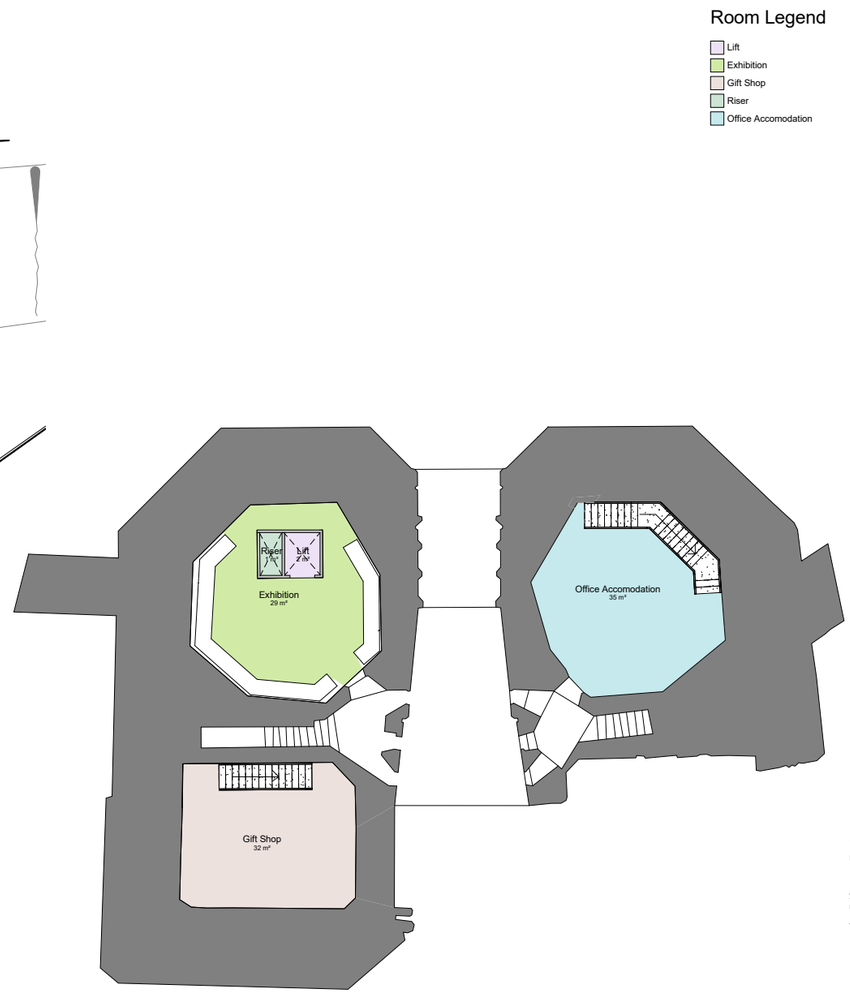
Basement	
WC	34sqm
Store	71 sqm
Ground Floor	
Visitor Oritentation	43sqm
Office	69sqm
Gift shop	40sqm
Mezzanine Level	
Office	35sqm
Exhibition	29sqm
Gift shop	32sqm
First Floor	
Education Room	39sqm
Exhibition	45sqm
External Exhibition	27sqm
Second Floor	
Kitchen/Servery	22sqm
Covered Café Seating	60sqm
Viewing Platform	119sqm
Total	
	665sqm



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1 Level 0 - Option 1D
1 : 100



2 Level 0.5 - Option 1D
1 : 100

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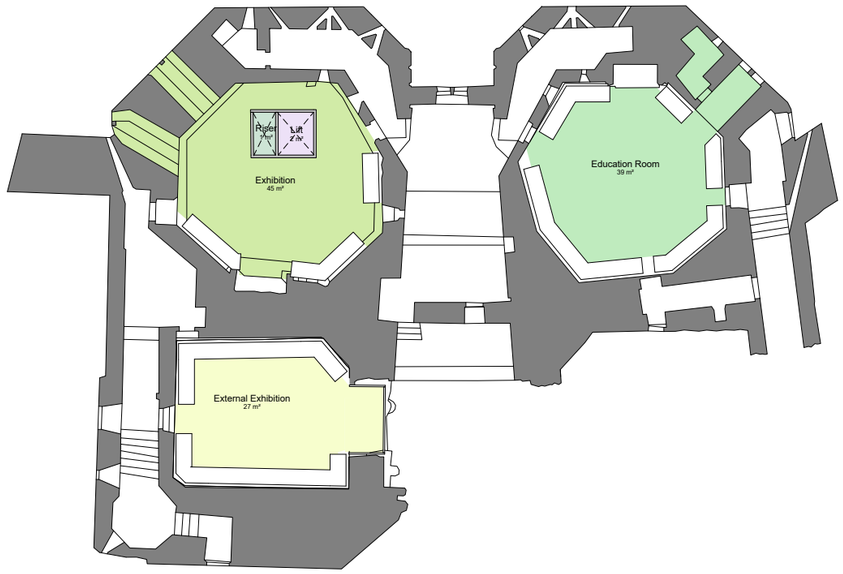
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Client	CADW
Location	Caernarfon, Wales
Drawing ref	
Date	
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Orig Paper Size	A1
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Room Legend

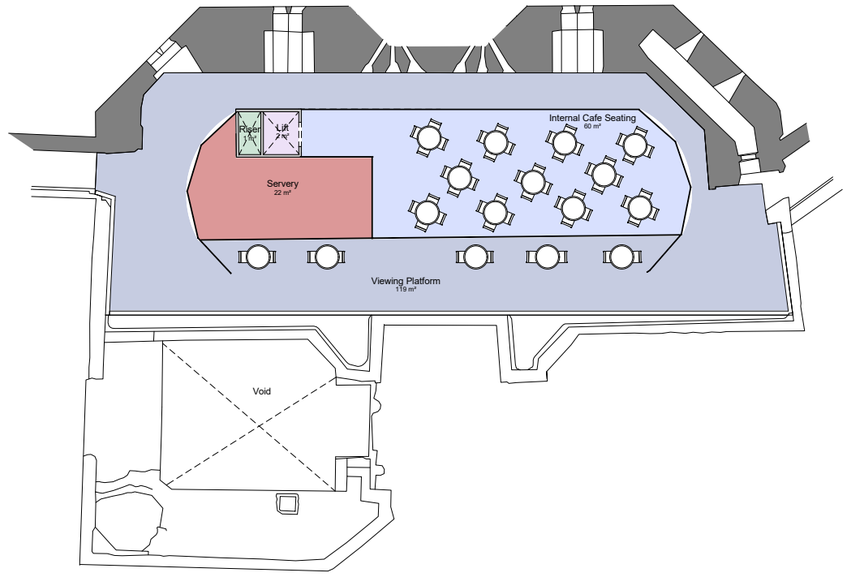
- Lift
- External Exhibition
- Exhibition
- Riser
- Education Room



1 Level 1 - Option 1D
1 : 100

Room Legend

- Lift
- Internal Cafe Seating
- Riser
- Servery
- Viewing Platform



2 Level 2 - Option 1D
1 : 100

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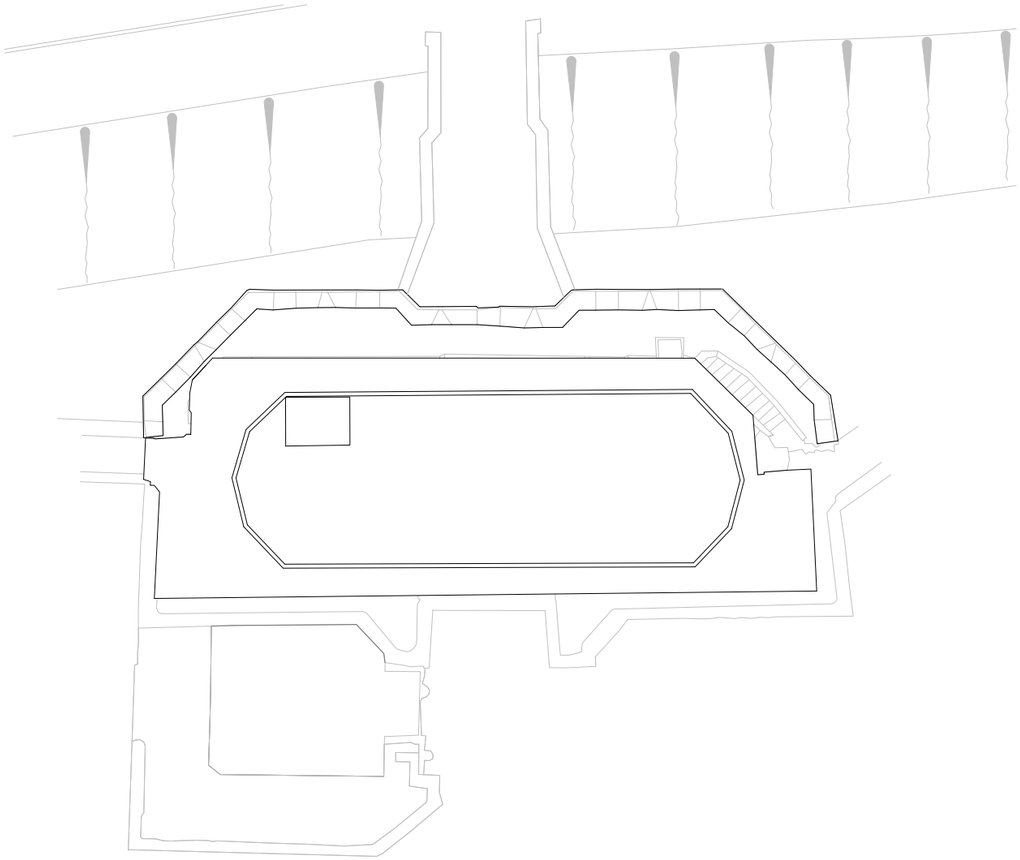
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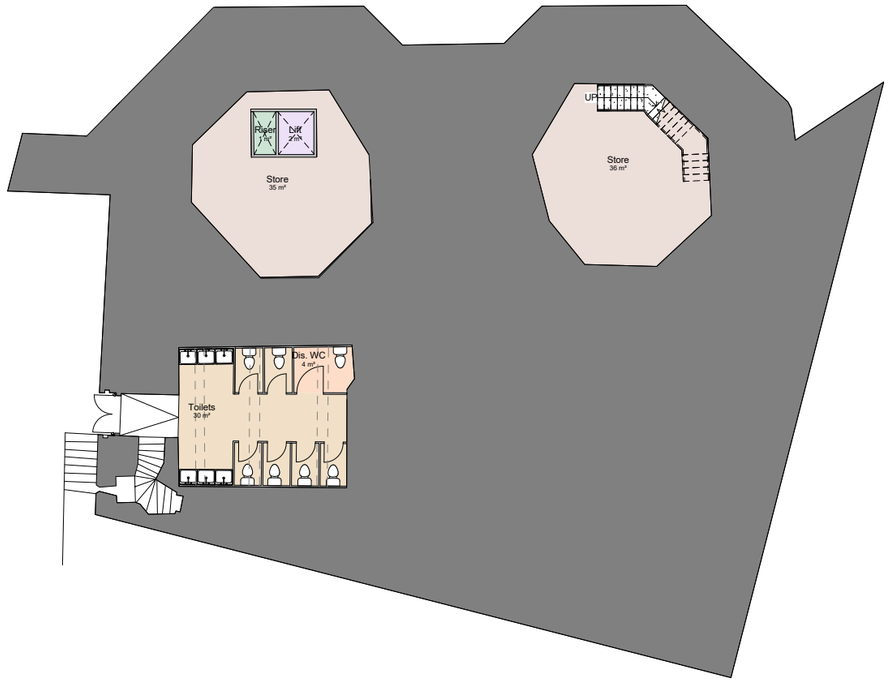
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Location	Caernarfon, Wales
Drawing ref	

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Drawing ref	Job No	Drawing No	Revision
	8307	**117**	**A**



2 Level Roof Option 1D
1 : 100



1 Level -1 - Option 1D
1 : 100

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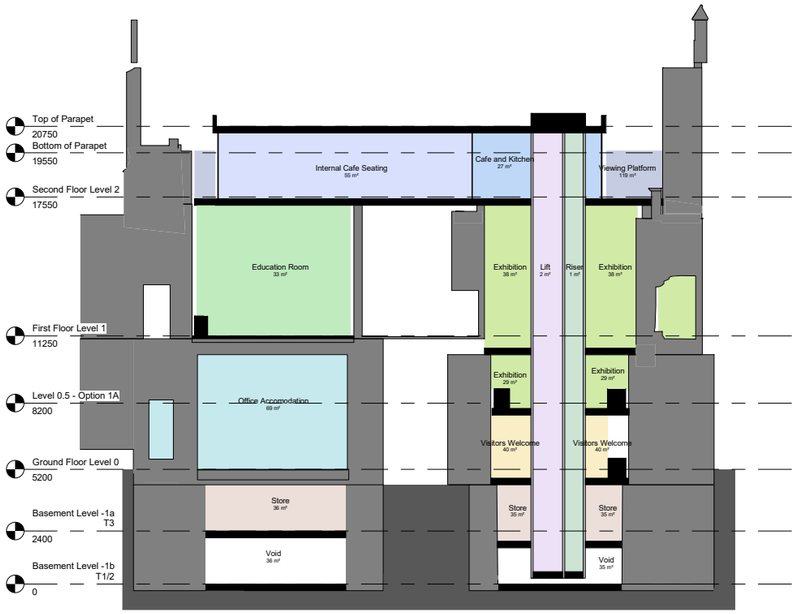
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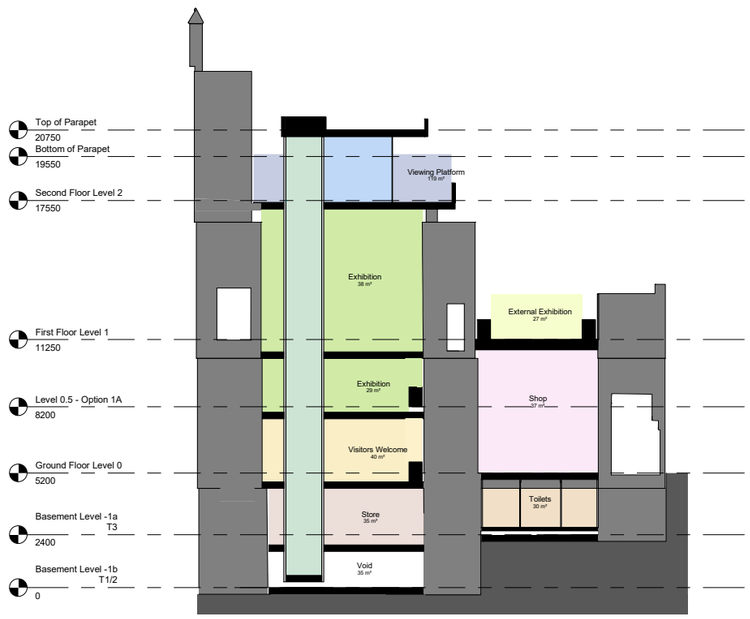
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Project Title	Caernarfon Castle - Kings Gate
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Drawing ref	Option 1b
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Status	

Drawing ref	Job No	Drawing No	Revision
	8307	118	A



1 **Section 1 Option 1D**
1 : 100



2 **Section 2 Option 1D**
1 : 100

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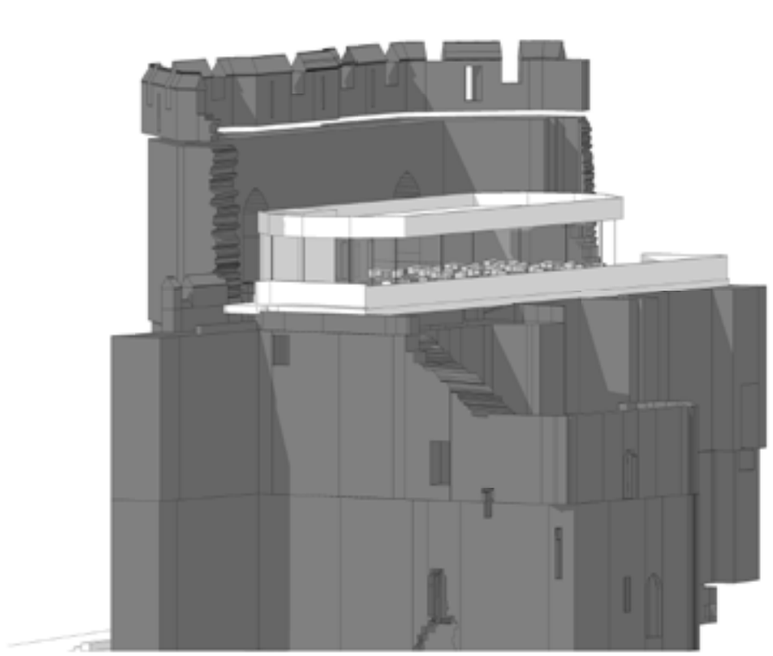
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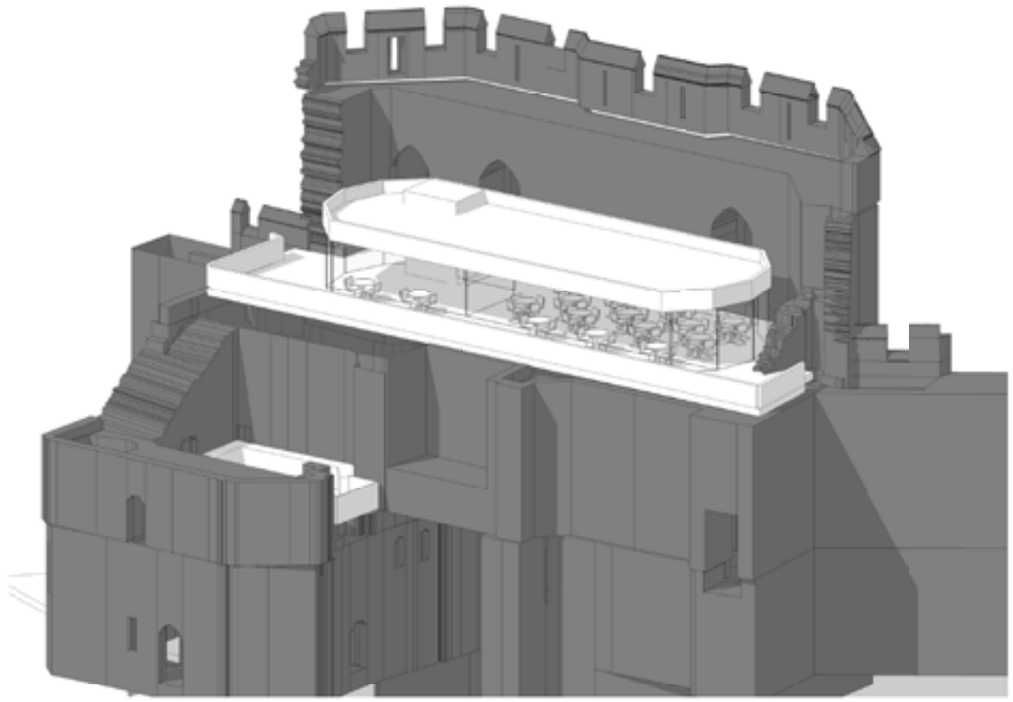
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Drawing ref	
Date	
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Scale	1 : 100
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Drawing ref	Job No	Drawing No	Revision
	8307	119	A



1 View from eagle tower Option 1D



2 View 2 Option 1D

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Location	Caernarfon, Wales
Drawing ref	

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		Status	

Drawing ref	Job No	Drawing No	Revision
	8307	120	

7.10 Area Comparision

7.10.1 Overview of areas per option compaierd to existing areas

	Visitor Orientation	Gift Shop	Visitor WC	Education Space	Exhibition	External Exhibition	Office Accomodation	Kitchen / Servery	Café Seating	Viewing Platform	Store	Total
Existing		36 sqm		45 sqm			60 sqm			9 sqm	70 sqm	**200 sqm**
Option 1a	44 sqm	60 sqm	34 sqm	39 sqm (Flexible space)		39 sqm (Flexible space)	98 sqm	4 sqm	40 sqm	41 sqm	71 sqm	**470 sqm**
Option 1b	43 sqm	56 sqm	34 sqm	39 sqm (Flexible space)	45 sqm		101 sqm	6 sqm	No formalised seating	175 sqm	117 sqm	**618 sqm**
Option 1c	46 sqm	56 sqm	34 sqm	39 sqm	113 sqm		96 sqm	14 sqm	95 sqm	74 sqm	71 sqm	**638 sqm**
Option 1d	43 sqm	72 sqm	34 sqm	39 sqm (Flexible space)	74 sqm	27 sqm (Flexible space)	104 sqm	22 sqm	60 sqm	119 sqm	71 sqm	**665 sqm**

7.10.2 The table displaying the various options and associated areas has been summaried as follows

7.10.3 Option 1a provides

- An additional floor area of approximately 270 sqm
- Of this additional floor area 16% forms the visitor orientation
- 59% of the area forms the visitor facilities
- 14% of the area forms the exhibition space
- 31% of the area forms the proposed second floor which houses a café/kitchen and viewing platform
- An additional 40 sqm of office accommodation
- Storage facilities remain the same

7.10.4 Option 1b provides

- An additional floor area of approximately 420 sqm
- Of this additional floor area 10% forms the visitor orientation
- 60% of the area forms the visitor facilities
- 11% of the area forms the exhibition space
- 43% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An additional 40 sqm of office accommodation
- An additional 47 sqm of storage facility

7.10.5 Option 1c provides

- An additional floor area of approximately 440 sqm
- Of this additional floor area 10% forms the visitor orientation
- 59% of the area forms the visitor facilities
- 26% of the area forms the exhibition space
- 42% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An additional 40 sqm of office accommodation
- Storage facilities remain the same

7.10.6 Option 1d provides

- An additional floor area of approximately 465 sqm
- Of this additional floor area 9% forms the visitor orientation
- 55% of the area forms the visitor facilities
- 22% of the area forms the exhibition space
- 43% of the area forms the proposed second floor which houses a café/kitchen and viewing platform.
- An additional 40 sqm of office accommodation
- Storage facilities remain the same

7.11 Summary of Options

7.11.1 A review of the options against the Project Objectives highlights that Option 1a fails to achieve the objectives around the Café provision, which calls for *'the provision of a light snack and refreshments including imaginative solutions to accommodate 36-44 seated covers.'*

7.11.2 Option 1a provides approximately 12 indoor seated covers at Level 1, with potential for a further 12 entirely outdoor seated covers to the upper level of the Tower, accessible only by lift or an extremely convoluted and challenging route through the Castle.

7.11.3 24 covers, split across two levels, would not generate sufficient critical mass of 'offer' for it to be viable commercially.

7.11.4 Looking at Level 1, to keep the mass of development at the upper level of the Tower to a minimum, only the lift and potentially a service riser is taken to the upper level, which necessitate the café servery being on the level below. This provision takes up the majority of the space at Level 1 and limits the number of seated covers which can be accommodated.

7.11.5 It is also the case that for the café offer to be accessible, it must be closely associated with the lift, which means that the space also becomes a major thoroughfare, both for lift users and for visitors using the historic staircase accessed near the retail. The space runs the risk of becoming unusable, even on relatively quiet days, as visitors queing for the servery, using the lift and exploring the King's Gate must all pass through the space. This makes this option highly impractical.

7.11.6 If the café were located elsewhere and disassociated from the lift, it would become inaccessible to people with restricted mobility, which is questionable in Equality Act terms and would not meet with the Project Objectives around accessibility improvements.

7.11.7 The above suggests that the visitor experience would be seriously compromised by a café as located in Option 1a. In addition, the lack of views out could be a further compromise to the visitor experience of a café in this location.

7.11.8 From a conservation perspective, the volume of people and the functionality is likely to exacerbate concerns around changes to the environment of Tower 1. Whilst ventilation can be provided, this will necessitate some visual intrusion to appropriately ventilate the space to mitigate concerns about environmental change, so either way there would be a considerable impact.

7.11.9 Visually, the option will have an impact. There is less scope for the design of this option to have sufficient interest and quality for this visual impact to be mitigated.

7.11.10 Option 1a is considered to not meet with the objectives of the project and it is recommended that it be dismissed.

7.11.11 Each of Options 1b, 1c and 1d meet with the Project Objectives to varying degrees. They can all accommodate the number of covers required in a manner which adds to the visitor experience and provides dedicated, flexible space.

7.11.12 Option 1b, having limited weather protection, will mean that the Café offer has limited functionality in poorer weather.

7.11.13 Option 1c, with a lightweight roof, will provide some weather protection and make the café offer usable throughout most the year.

7.11.14 Option 1d meets with the brief most fully, in that it provides a usable space throughout the year, with the enclosing screens able movable.

7.12 Feedback on the Options

7.12.1 The above options were issued to Cadw for initial review ahead of a design team meeting on Friday 3rd February 2017.

7.12.2 Cadw further reviewed the options following the meeting and offered some initial feedback.

7.12.3 This feedback requested further narrative on the options (now provided within this report) and to prepare sketch visuals which begin to explore massing and materiality more fully.

7.12.4 This is explored in Section 8.

8 Further Design Development

8.1 Introduction

8.1.1 This section of the report details design development emerging from initial exploration of the massing at the upper level of the King's Gate.

8.2 Design Development

8.2.1 Based on the exploration in Section 7, Option 1a is not developed any further, as it does not meet with the Project Objectives.

8.2.2 Design development has focused on exploring the visual impact of Options 1c & 1d, as the options which would arguably have the greatest visual impact.

8.2.3 Further exploration of form, scale and mass has also been included within this design development.

8.2.4 This has necessitated some consideration of the material palette.

8.3 Materiality

8.3.1 The original design concept considers the architectural elements being pieces of furniture, inserted into the volume of the King's Gate and legible as contemporary additions.

8.3.2 This is perhaps best explained as the quality being comparable to high quality, bespoke, outdoor furniture.

8.3.3 Materials used elsewhere for contemporary interventions across the site tend to be manufactured materials, such as steel and glass, or natural materials, particularly stone and wood. Steel and glass has been used for the recent temporary visitor reception, the entrance bridge and the viewing platform at the Queens Gate. Natural stone has been used to form walls and paths. Wood has primarily been used for the floor construction within the Towers, where they are in functional use.

8.3.4 The use of steel and glass in historic contexts is common. It is considered to offer the ability to intervene in a 'light' manner, allowing the historic fabric to remain visible whilst being overtly contemporary in nature. In practice, it is an over-used and simplistic solution, with the impact of reflections often disregarded in assessing visual intrusion and used as a default position, rather than exploring alternative, more contextual, interventions.

8.3.5 Given the context, glass is likely to form a part of the material palette, although given that the upper level is visible from a wide range of locations within the Castle, over-use could result in visual impact being increased through reflection and glare. It is considered that the use of opaque and non-reflective materials, carefully selected and articulated, will offer the least visual impact overall, with sparing use of glass where it offers benefits in terms of balancing shelter and view.

8.3.6 The context suggests that the use of natural materials is appropriate, with the use of wood lending itself to realising the 'furniture' concept.

8.3.7 Wood can either maintain or change its appearance when exposed to the weather and depending on the exact material selection.

8.3.8 Wood such as cedar and oak both weather to a silver hue over time, which would permit the intervention to blend with the surrounding stone over a period of years. Such weathering is uneven, so more sheltered wood will weather more slowly, or not at all if very well sheltered, such where used for a soffit.

8.3.9 However, wood can be finished such that it maintains its original appearance, which, whilst it would remain more overt, means that it may be better protected from the elements in such an exposed location and is deliberately kept from blending in so that it continues to read as an intervention. This approach would also enhance legibility of the interventions, ensuring that the 'furniture' installed in the levels below continue to share an architectural language with the interventions at the upper level, rather than weathering diluting that relationship.

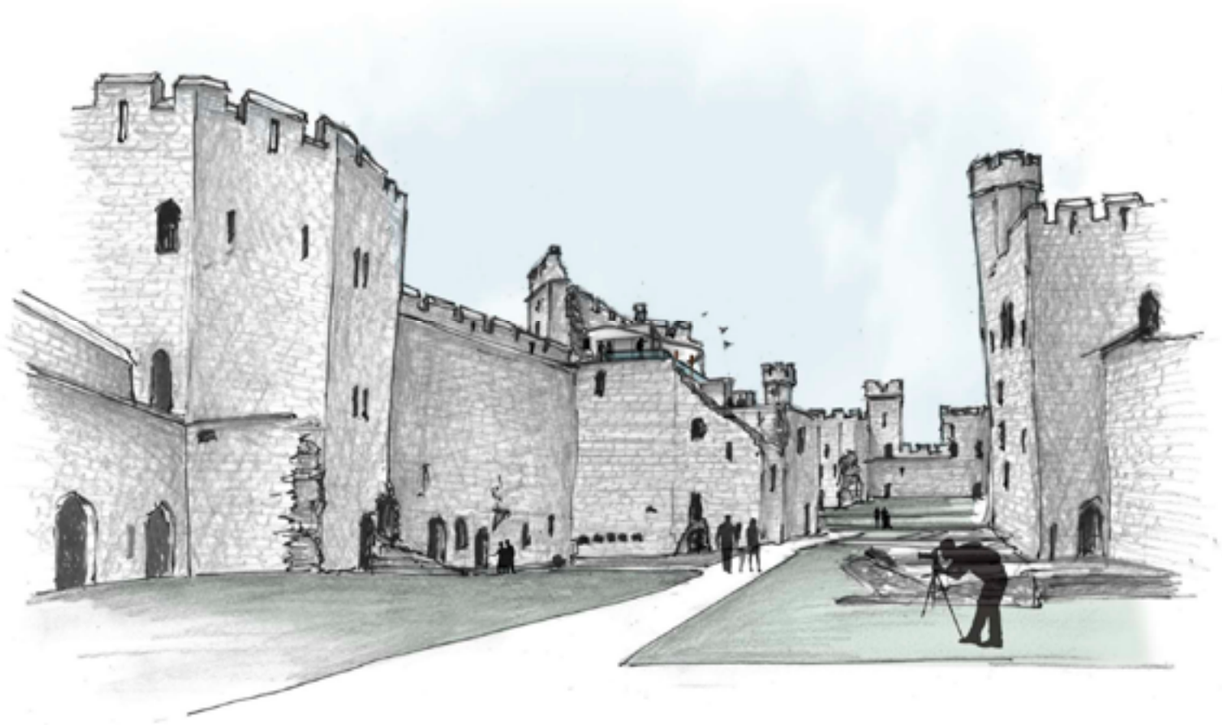
8.3.10 There may be a role for stone to articulate architecturally heavier elements, like the lift, which should read as something distinct from the 'furniture' based approach used elsewhere, to ensure it is legible both in orientation and architectural senses.

8.3.11 It is envisaged that the material palette will be kept simple, with as few materials as possible used. Consideration will be needed to areas such as roofs and whether the use of lead, or man made materials such as single ply membranes might be appropriate.

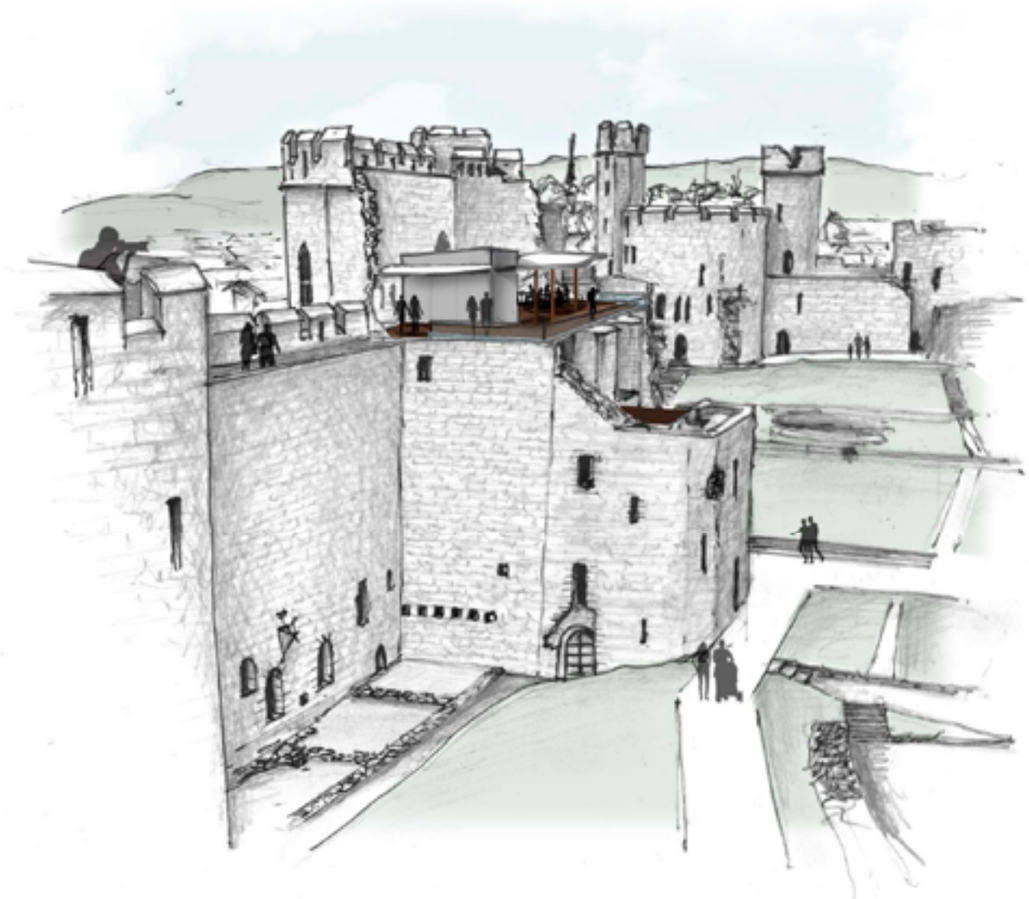
8.3.12 The use of materials also offers the potential to articulate the contemporary nature of the interventions, ensuring that it does not become misinterpreted as an attempt to conjecturally complete incomplete elements of the Castle, as well as making elements of the interventions, and their relationship with the Castle, fully legible, such as a change in the disposition of the floor at the upper level to make legible the voids underneath.

8.3.13 This thinking is loosely articulated in the visuals developed at this stage, exploring tone and disposition rather than materiality in detail.

8.4 Option 1c





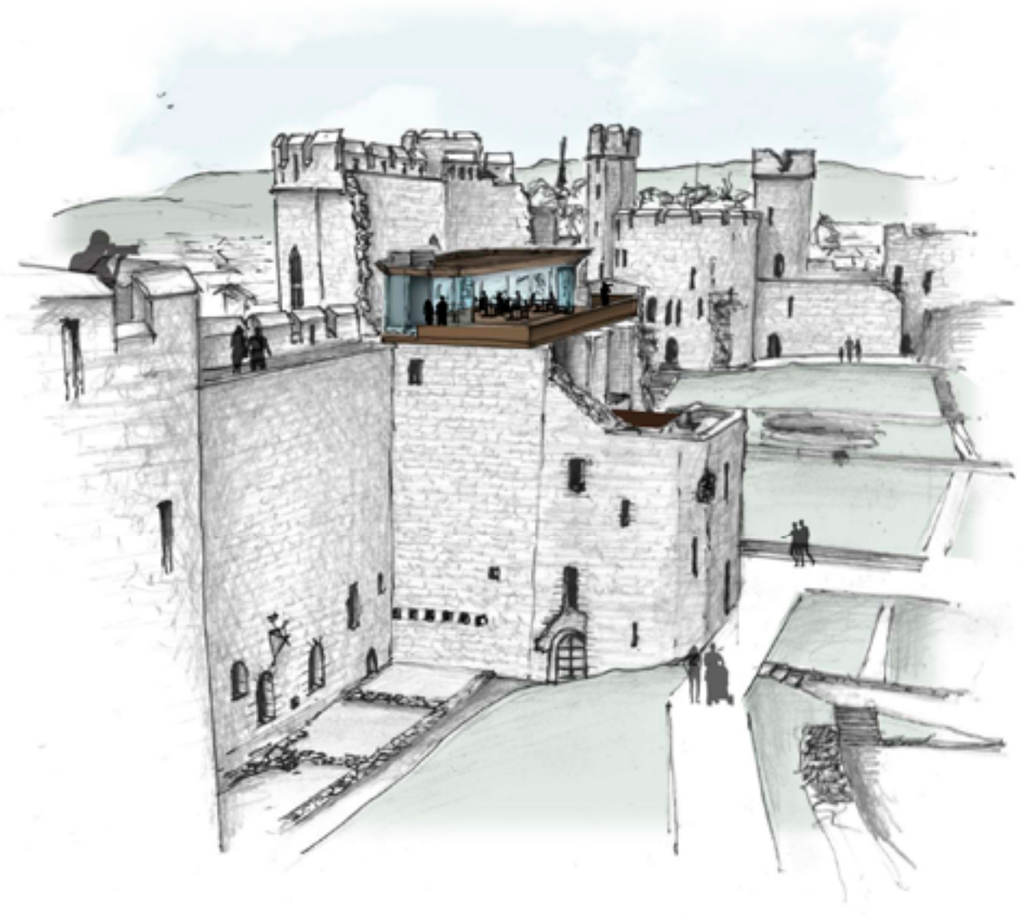


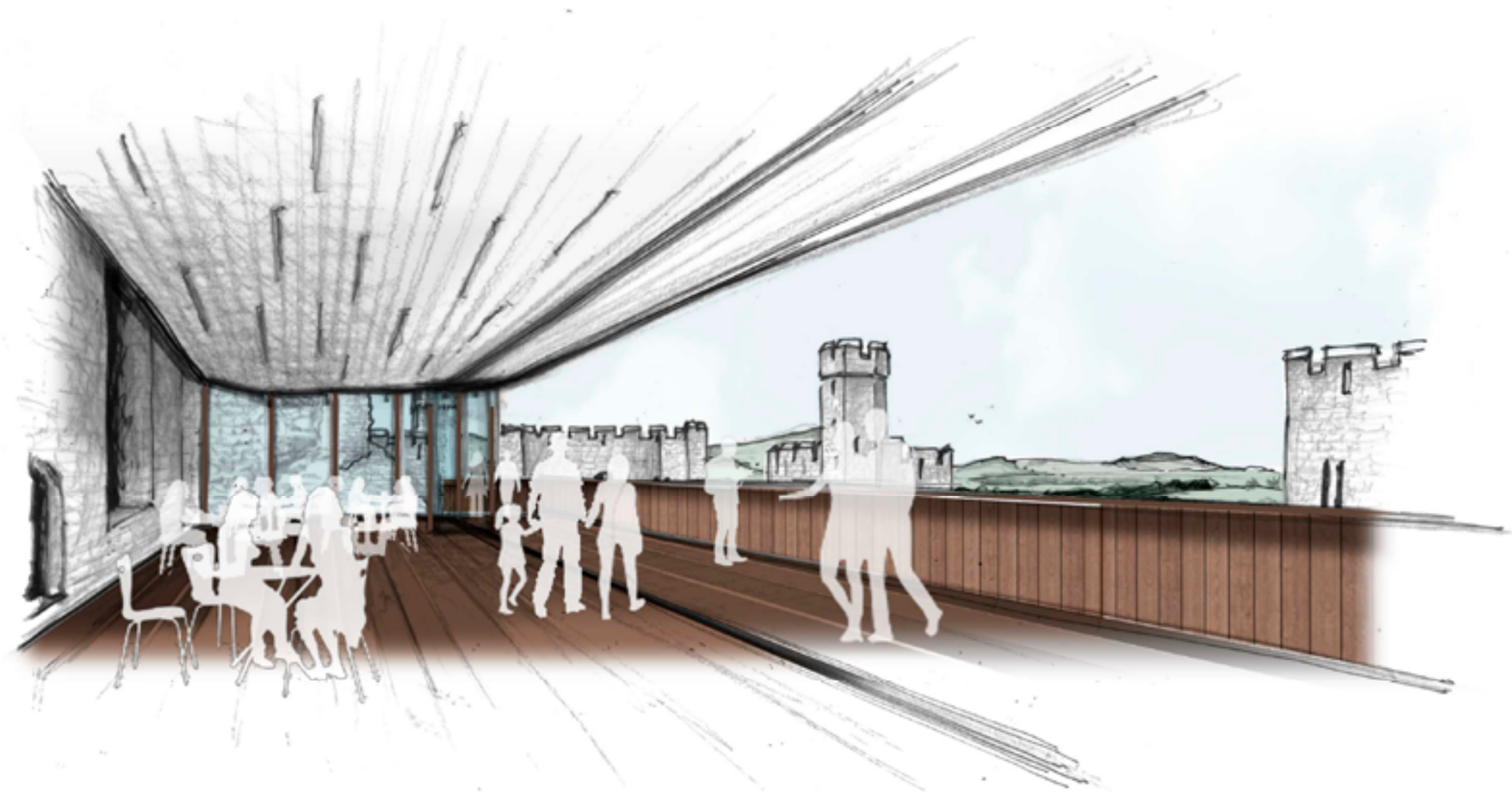


8.5 Option 1d









9 Conclusions & Recommendations

9.1 Conclusions

9.1.1 This report is intended to provide a summary of design development to date, identify possible approaches and opportunities to fulfilling the brief and to provide a basis for discussion on how the options put forward can be narrowed down to permit more focused study.

9.1.2 The report also illustrates that whilst there are challenges, it is feasible to meet the project objectives.

9.2 Recommendations

9.2.1 In order to inform the next stage of design development, direction from the MDT is required on the following:

- That Option 1a can be dismissed.
- That the general material palette is considered an appropriate direction, subject to further design development.
- Any preference between Options 1b, 1c and 1d.

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16.5 Buttress. Gap Analysis. 2018.



8307 | Caernarfon Castle - King's Gate

Gap Analysis

January 2018

Buttress

8307 | Caernarfon Castle - King's Gate
Gap Analysis

Prepared for:

Cadw
Llandudno Junction Office
Block A1
Sarn Mynach
Llandudno Junction
CONWY
LL31 9RZ

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Buttress

41 Bengal St.
Manchester
M4 6AF

T 0161 236 3303
F 0161 236 3303
E contact@buttress.net
W www.buttress.net

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1 Executive Summary

1.1 Introduction

1.1.1 This report has been prepared following discussion in the Monument Development Team meeting of 22nd November 2017.

1.1.2 The discussion concluded that there may be project options that remain untested. To ensure that statutory bodies can have confidence that the preferred approach results from rigorous testing of all available possible options, Buttress were tasked with reviewing the work that lead to their brief for the project.

1.2 Approach

1.2.1 A desktop review of available information has been undertaken on relevant policy and guidance and how the options correlate to this, to establish if there are any current gaps in consideration.

1.3 Findings of the Gap Analysis

1.3.1 The analysis has found that there is a gap in consideration around dispersed options for delivering the project objectives. There has been some consideration, although it has not been comprehensive and therefore allows room for doubt on the rigour applied to optioneering on such a significant site.

1.4 Recommended Actions

1.4.1 It is recommended that checks be undertaken to ensure that Buttress are in possession of all relevant information.

1.4.2 If, once Buttress have reviewed any additional information available, gaps still exist, it is recommended that further work be undertaken to assess options in order to fill those gaps and be able to evidence that all available options have been assessed in appropriate detai.

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2 Introduction

2.1 Introduction

2.1.1 This report has been prepared following discussion in the Monument Development Team meeting of 22nd November 2017.

2.1.2 The discussion concluded that there may be project options that remain untested. To ensure that statutory bodies can have confidence that the preferred approach results from rigorous testing of all available possible options, Buttress were tasked with reviewing the work that lead to the Cadw brief for the project.

2.2 Limitations of the Report

2.2.1 The report is based on available information only. If any options have been considered and information not provided to Buttress, these options have not been referenced within this report.

2.3 Authorship

2.3.1 The Report has been prepared by Stephen Anderson BA(Hons) BArch PGDip (Arch. Cons.) RIBA, Associate Director, Kimberley Corrall BA(Hons) BArch, Architect and Jenna Johnston MA(Hons) MSc, Heritage Consultant, all with Buttress Architects Ltd.

2.4 Project Brief

2.4.1 The project brief articulates a series of key objectives which are a manifestation of audience research and feasibility work undertaken over many years. These are repeated here to express the objectives which will provide the public benefit expressed elsewhere in this paper.

2.4.2 Primary Objectives are as follows:

1. Options for the provision of a light snack and refreshments including imaginative solutions to accommodate 36-44 seated covers.
2. Improvement to current Visitor WC provision, extending to the inclusion of DDA compliant facilities.
3. Increased and improved Retail space within the Kings Gate Tower area. The existing Cadw shop-fittings will be used. Separate storage area will be needed.
4. Vertical access to the battlements.
5. Options for providing an enhanced visitor experience by identifying areas and/or opportunities for imaginative, interactive and immersive experiences e.g. within dungeon spaces and dressed rooms through technology e.g virtual reality. WiFi connectivity will be required throughout the development. Multiple and adaptable lighting and power sockets will be required.
6. Improvement and/or relocation of Staff Facilities - consisting of Office (to cater for 3 workstations, cash safe, EPOS Back Office system, space for filing and storage), Mess Room (to accommodate 4-5 people, sink and counter for tea/ coffee/wash-up facilities, microwave, fridge, 5no. lockable coat lockers) and separate WC facilities.

2.4.3 Secondary Objectives were also identified, as follows:

- Improved multi-purpose and accessible education facilities for visiting schools or interest groups. Adequate storage facilities will be needed within this space. Inclusion of a sink with hot/cold water supplies would be ideal. WiFi connectivity within this space and an interactive whiteboard is a pre-requisite.
- Provide innovative temporary weather resilience solutions e.g the provision of service stations' (water and electric supply points) by which gazebos or other lightweight structures can be placed for seasonal use.

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3 Approach

3.1 Requirement

3.1.1 Buttress have reviewed ICOMOS guidance, Planning Policy Wales (Edition 9, 2016) and relevant Technical Advice Notes to establish the requirements for provision of a robust evidence base in the context of the project.

3.1.2 Planning Policy Wales Paragraph 6.4.5 states: 'Development plans must reflect that World Heritage Sites have been inscribed by UNESCO because of their Outstanding Universal Value. These sites can also contribute to a national and local sense of community and to sustainable economic development and regeneration.'

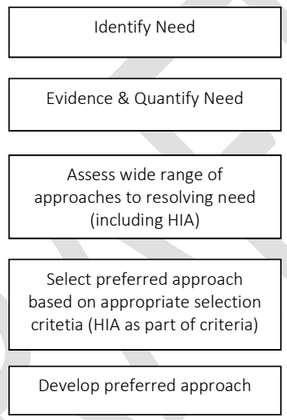
3.1.3 Planning Policy Wales Technical Advice Note 24: The Historic Environment states that when considering an application for scheduled monument consent, there is a presumption against proposals which would involve significant alteration or cause damage, or which would have a significant impact on the setting of remains. Therefore, SMC applicants are expected to demonstrate that no practicable alternative route or location, avoiding the monument, exists and that the need to undertake works outweighs the presumption in favour of the protection of the scheduled monument.

3.1.4 The Welsh Government's six principles for sustainable management of the historic environment in Wales are also used as a guide when considering applications for scheduled monument consent. These are:

- Historic assets will be managed to sustain their values.
- Understanding the significance of historic assets is vital.
- The historic environment is a shared resource.
- Everyone will be able to participate in sustaining the historic environment.
- Decisions about change must be reasonable, transparent and consistent.
- Documenting and learning from decisions is essential.

3.1.5 In summary, these documents are highlighting that Welsh Government policy is that World Heritage Sites can contribute to sustainable economic development, but that it must first be robustly evidenced that no practicable alternative exists, that the need to undertake the works outweighs the presumption in favour of the protection of the World Heritage Site / scheduled monument and then that in impacts can be adequately mitigated.

3.1.6 There is an underlying logic in the various guidance that suggests the following process should take place:



3.2 Desktop Study

3.2.1 To establish whether all practicable alternatives have been adequately tested to arrive at the approach being explored, Buttress have undertaken a desktop review of available information on options tested.

3.3 Information Reviewed

3.3.1 As part of the gap analysis, the following information has been made available and has been reviewed:

- Minutes of the MDT Meeting held at Caernarfon Castle/Porth Mawr WG offices, Penrallt, Caernarfon at 10am on 12th May 2016
- Donald Insall Associates Report – 'Long Term Solutions to improve Visitor Facilities, Caernafon Castle, Phase 2' issued 'Draft3 22nd September 2015.' (Note filename is Draft5 of the same date)
- Appendices to the above report, which includes diagrams from Carolyn Lloyd Brown Associates Interpretation Plan for Caernarfon Castle and Town Walls, dated July 2013
- Draft Business Plan for the Caernarfon Waterfront Tourism Attractor Destination proposal for Caernarfon Castle

4 Need

4.1 Project Need

4.1.1 The need for the project is a key issue in terms of proving a case for taking the project forwards in a strategic sense.

4.1.2 Welsh Government Planning Policy and Technical Advice Notes mention 'need,' or more specifically the idea of the planning system being used to meet 'society's needs.'

4.1.3 The level of 'need,' perhaps better defined in this case as the 'public benefit,' is a key determinant in the level of intervention which is justifiable in planning terms – public benefit vs. harm.

4.1.4 Need is less well defined in ICOMOS guidance, although a recent policy document released by UNESCO, 'Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention (as adopted by the General Assembly of States Parties to the World Heritage Convention at its 20th session (UNESCO, 2015))' is helpful in understanding the balancing between preservation of Outstanding Universal Value and the contribution World Heritage Sites can make to sustainable development within their locality. It also sets out that World Heritage's role in guaranteeing sustainable development 'needs to be strengthened' and 'their full potential to contribute to sustainable development needs to be harnessed.'

4.1.5 It is possible for the project objectives to be met in a number of ways and establishing the approach which meets best balances achieving delivering public benefit through the project objectives with minimal heritage impact will be the optimal and most justifiable approach.

4.2 What is the Need for this Development?

4.2.1 The need, or public benefit, which will emerge from the proposed redevelopment of the King's Gate at Caernarfon Castle is multi-facted and can be expressed under the following headings:

4.2.2 <u>Regeneration / Tourism led Economic Development:</u>

- Caernarfon Castle is a key heritage asset and tourism attractor destination within North Wales, attracting circa 200,000 visitors per annum. It has been estimated that a further 15,000 visitors could be added through the proposed improvements. Caernarfon Castle has been assessed as currently providing a directly attributable £2.2m per annum to the local economy which equates to 147 FTE's. The project has been targeted to directly provide an additional 7.5 FTE's.
- Visitor research indicates that lack of modern visitor facilities (enhanced WC's, enhanced retail offer, refreshment offer) is a key
- Indirect impacts include:
  - Increased investment: the development of multiple key strategic sites in the town in addition to their environs will create a high-quality and attractive environment where people want to visit, and businesses want to invest, increasing local entrepreneurship and confidence. There will be additional positive, indirect effects, leading to additional investment in the economy by new and existing businesses as they respond to increased market demand.
  - Tackling Poverty: Increased economic opportunities resulting from direct and indirect intervention will provide jobs, skills development and training opportunities in a Communities First area. The programme will complement the current VVP Tackling Poverty initiative in working alongside the Communities First cluster and other ESF employment projects to identify and implement opportunities to work with projects to provide opportunities and experiences that will enhance employment prospects.
  - Welsh Language: Regarded as the Welsh-speaking capital of Wales (and the world!), the developments will have the indirect benefit of bolstering the economic and social viability of Caernarfon. The increased availability of employment and opportunity because of the developments and increased investment appetite will contribute towards reducing youth out-migrating and ensuring the long-term future of the community.

4.2.3 <u>Access:</u>

- Access around Caernarfon Castle is poor, a product of its Outstanding Universal Value on the one hand, but a barrier to many visitors given the nature of the changes in level, tight spiral staircases etc. These challenges preclude a wide range of visitors from experiencing the breadth of the offer and areas which hold significant Outstanding Universal Value. A key driver for the project is to provide improved access, focusing on offering access to as wide a range of people and access needs as possible to the battlements for the first time.

4.2.4 <u>Need expressed by visitors:</u>

- Visitor research undertaken as part of the project has highlighted the following needs:
  - Need to raise awareness of the World Heritage Site (most visitors are not aware).
  - Need to articulate Outstanding Universal Values embodied by the WHS to visitors (the majority are not aware of what is so special about Caernarfon Castle, beyond a very superficial understanding).
  - Misunderstanding of visitors in respect of its incomplete nature / need to better explain this aspect.
  - Need for the facilities expressed in the project objectives (recent audience research reinforces visitor

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expectations for café, retail, enhanced interpretation etc.).

4.2.5 Regional Impact:

- The programme of investment in Caernarfon will have far-reaching consequences and impacts upon the regional economy. North West Wales, including the Snowdonia Mountains and Coast, is already a growing brand that has a key role to play in the cultural, heritage and environmental tourism offer of Wales. The development of Caernarfon as a destination will have direct positive impacts on associated tourism developments regionally such as the Cruise Industry in Holyhead and indirectly on associated cultural and heritage attractions. Its development will raise the profile of Wales as a cultural and heritage destination.

4.2.6 Policy Alignment:

- The project is in line with Welsh Government and Gwynedd Council policy as noted throughout the Draft Business Plan for the Caernarfon Waterfront Tourism Attractor Destination proposal for Caernarfon Castle.

4.2.7 Funding:

- The project has been assessed and awarded funding by the European Regional Development Fund.

4.3 Quantifying Public Benefit

4.3.1 Public benefit is challenging to quantify, particularly when being compared against heritage impact.

4.3.2 The benefits of the project are described as 'regional,' this is the best current measure available and offers some sense of the scale of public benefit possible if the project objectives are delivered.

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5 Findings of the Gap Analysis

5.1 Introduction

5.1.1 The findings are presented in a tabular format, indicating the areas of Caernarfon Castle considered within the pieces of work provided for the analysis.

5.1.2 In addition, a 'High Level Options Analysis' has been added where limited consideration is needed to establish whether the option should be explored further or not.

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	Do Nothing	Eagle Tower	Well Tower	Kings Gate	Granary Tower	North East Tower
DIA Report	Not considered	Not considered	Pop up Facilities / Education Room noted in DIA Report	Considered	Considered	Considered
CLB Report	Not considered	Considered from Interpretive perspective only	CLB report suggests lift and considers interpretive approach	Considered	Considered from Interpretive perspective	Considered from Interpretive perspective
MDT Minutes	Considered	Not considered	Not considered	Considered	Not considered	Not considered
Draft Business Plan	Considered	Not considered	Not considered	Considered	Not Considered	Not Considered
Buttress Report	Not considered	Not considered	Not considered	Considered	Not Considered	Not Considered
Comments		Considered only in terms of interpretation, although spaces are in use.	Has been considered, albeit with contradiction between DIA and CLB approaches.	The Kings Gate has been considered in detail, with alternative approaches explored.	Considered as part of dispersed option, primarily for staff accommodation in conjunction with the North East Tower.	Considered as part of dispersed option, primarily for staff accommodation in conjunction with the Granary Tower.
High Level Options Analysis	A 'Do Nothing' approach cannot deliver against the project objectives and has therefore been correctly dismissed.	The Eagle Tower is already in use and has access challenges. Not ideally placed as part of a visitor welcome.	The Well Tower has potential as part of a dispersed option – limited space and severe access challenges precludes this being an answer in its own right.	Further consideration necessary only in the context of the current project. It is understood that this option was selected as preferred as it minimised the level of visible new construction over other options.	The Granary Tower has potential as part of a dispersed option – limited space and severe access challenges precludes this being an answer in its own right.	The North East Tower has potential as part of a dispersed option – limited space and severe access challenges precludes this being an answer in its own right.

	Queens Gate	Cistern Tower	Other Locations	Black Tower	Chamberlain Tower	Queen's Tower
DIA Report	Not considered	Not considered	Not considered	Not considered	Not considered	Not considered
CLB Report	Considered from Interpretive perspective	Considered from Interpretive perspective	Considered	Considered from Interpretive perspective	Considered from Interpretive perspective	Considered from Interpretive perspective
MDT Minutes	Not considered	Not considered	Not considered	Not considered	Not considered	Not considered
Draft Business Plan	Not Considered	Not Considered	Not Considered	Not considered	Not considered	Not considered
Buttress Report	Not Considered	Not Considered	Not Considered	Not considered	Not considered	Not considered
Comments			The CLB report considers potential construction in the area between the King's Gate and Chamberlain Tower, effectively 'completing' the separatiojn between the upper and lower wards. No other locations are otherwise considered.		Currently houses the Royal Welch Fusiliers Museum.	Currently houses the Royal Welch Fusiliers Museum.
High Level Options Analysis	The Queens Gate is located at one end of the Castle and away from all potential access points. It is not well suited to delivering the project objectives and can be dismissed as a potential option.	The Cistern Tower is a very small and difficult to access part of the Castle, located away from any potential access points. It is not well suited to delivering the project objectives and can be dismissed as a potential option.	Beyond the locations considered within this table, there are no likely alternative positions which would be viable in consent terms. Development of any physical structure in the location suggested in the CLB report would contradict OUV's.	The Black Tower is a very small and difficult to access part of the Castle, located away from any potential access points. It is not well suited to delivering the project objectives and can be dismissed as a potential option.	The Chamberlain Tower is difficult to access and already fully utilised. It is difficult to envisage this as a viable option whilst it is in use.	The Queen's Tower is difficult to access and already fully utilised. It is difficult to envisage this as a viable option whilst it is in use.

	Site of Great Hall	Site of the kitchens	Current WC location	Between Eagle Tower and Queens Tower	Dispersed option	Off Site Option
DIA Report	Considered	Not considered	Not considered	Not considered	Considered	Not considered
CLB Report	Considered	Not considered	Not considered	Not considered	Not considered	Not considered
MDT Minutes	Considered	Not considered	Not considered	Not considered	Considered	Considered
Draft Business Plan	Not considered	Not considered	Not considered	Not considered	Not considered	Not considered
Buttress Report	Not considered	Not considered	Not considered	Not considered	Not considered	Not considered
Comments	This option has been considered in some detail and was not selected as preferred by the MDT. It is understood that this was due to the challenge of managing the scale / level of intervention focused in to a new development in such a prominent location.			There is an area between the Queen's Tower and Eagle Tower which could be developed. It has limited space, but is close to infrastructure.	Dispersed options were considered in outline, with a view formed and articulated by the MDT that there needed to be a critical mass of investment / development / facilities to meet with project objectives. This consideration was however limited by the information provided in the DIA and CLB reports, which did not cover some of the alternative locations as part of a dispersed option.	It is understood that Pendeitch, a building opposite the entrance, was considered and dismissed due to it being unlikely that appropriate tenure could be secured, safety issues with crossing the road and challenges for ticketing / welcome.
High Level Options Analysis	This option has been considered and dismissed for sound reasons which are well documented. There may however be merit in considering whether this location may be appropriate as part of a dispersed option.	There is insufficient space in this location to deliver against all project objectives, although it may be appropriate as part of a dispersed option.	There is insufficient space in this location to deliver against all project objectives, although it may be appropriate as part of a dispersed option. As it has already been developed, there is infrastructure present which would ease challenges around drainage and services disruption.	There is insufficient space in this location to deliver against all project objectives, although it may be appropriate as part of a dispersed option, being close to other infrastructure.	Whilst understanding the rationale behind the MDT decision, it is our view that a dispersed option has not been fully tested and requires further consideration.	An off-site option could deliver against some project objectives, but not all. Physical links with the Castle are a key constraint, so elements like WC provision, interpretation, education, ticketing etc. would all present constraints which would be difficult to overcome from an off-site location – it does not appear possible to link any off-site location with the Castle in a way which would reconcile issues like the pay barrier and heritage impact. This option has been dismissed for appropriate reasons.

6 Recommended Actions

6.1 Introduction

6.1.1 This section of the report details the actions considered necessary to evidence that a full range of options have been considered for delivery against project objectives, and to deliver the public benefits identified.

6.2 Gaps Identified

6.2.1 Based on the information provided, it appears that there are gaps in the options considered. These are as follows:

- Dispersed Option: A range of potential locations and approaches have not been fully considered as part of a dispersed approach. There is some potential for delivery against project objectives in these locations, including:
  - Granary Tower
  - North-East Tower
  - Site of the Great Hall
  - Site of the Kitchens
  - Current WC Location
  - Site between the Eagle Tower and Queen's Tower

6.3 Recommended Actions

6.3.1 Action 1: Cadw to confirm that no information exists which might demonstrate consideration of the above.

6.3.2 Action 2: If there is no information available, it is our view that work will need to be commissioned to consider the above in sufficient detail (at least to the level of detail within the DIA report) to appropriately evidence that all possible options have been considered.

DRAFT

16.6 Buttress. Staircase Options Heritage Analysis. 2019.



Version history

Project name: Caernarfon Castle - King's Gate
Project number: 8307
Client: Cadw

Rev:	Date:	Status	Name	Description
1	November 2019	DRAFT	Jenna Johnston I Senior Heritage Consultant	Issue for review

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Buttress

Buttress Architects Ltd.
41 Bengal St.
Manchester
M4 6AF

T: 0161 236 3303
W: www.buttress.net

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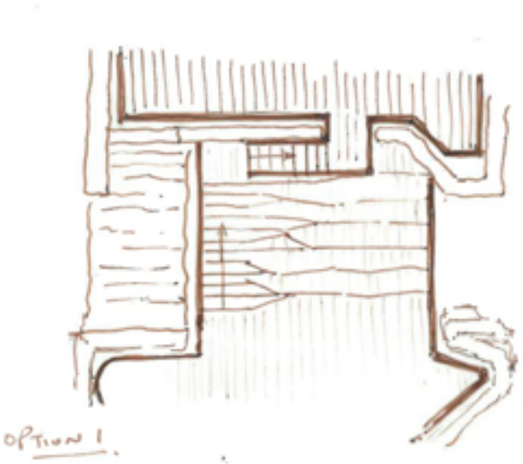
Staircase Options Heritage Analysis

This short summary report has been produced to provide heritage impact analysis for 4 proposed staircase configurations at the King's Gate, Caernarfon Castle. This staircase has been introduced principally to provide an additional alternative route in the event of required evacuation. By opening this staircase to the public for general perambulation, it will also provide some relief on key circulation areas, and provide additional aspects and views across the Castle. This also means that the use is not temporary, or "in-case of emergency," but integrated into the scheme, intentionally, and not seeking to hide it.

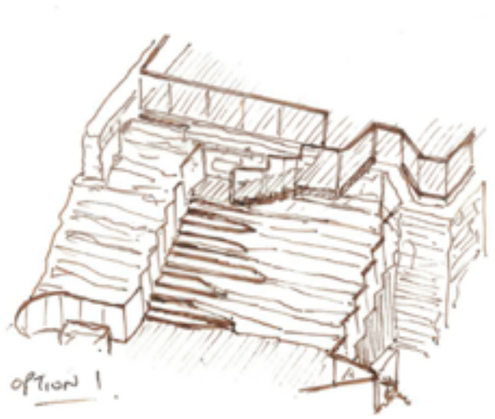
Option 1

The staircase in Option 1 interrupts the balustrade at the top deck of King's Gate, bringing a staircase down the rear and left wall of Tower 3, with the lower staircase integrated into the previously proposed gallery seating.

The fabric impacts of this option relate to the structure required for the new stair, and the already proposed intervention of the tiered seating in Tower 3. A small amount of masonry will also need to be removed for the width of the landing to meet the new floor deck. This is presumed to be c100mm depth minimum, and relating to one course.



The visual impact of this option focuses mainly around the upper staircase. The lower staircase is integrated into the proposal for tiered seating, however, the insertion of the new upper staircase has the potential to be harmful in views to and from the King's Gate due to its prominent location. This could be mitigated by material use, structure and form.



Option 2

The staircase in Option 2 interrupts the balustrade at the top deck of King's Gate where the walkway gets slightly wider, bringing a staircase down the rear and left wall of Tower 3, with the lower staircase integrated into the previously proposed tiered seating.

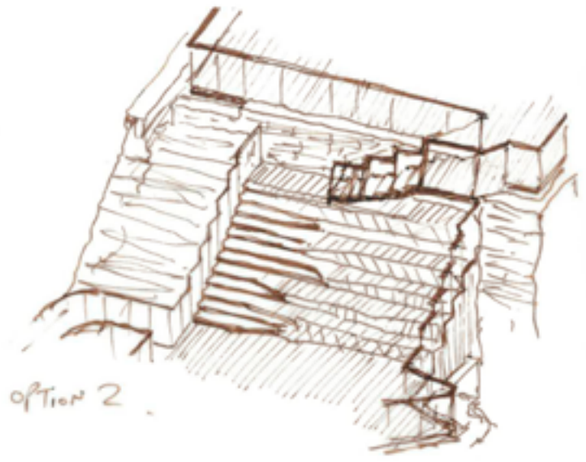
The fabric impacts of this option relate to the structure required for the new stair, and the already proposed intervention of the tiered seating in Tower 3. A small amount of masonry will also need to be removed for the width of the landing to meet the new floor deck. This is presumed to be c100mm depth minimum, and relating to one course.

The visual impact of this option focuses mainly around the upper staircase. The lower staircase is integrated into the proposal for tiered seating, however, the insertion of the new upper staircase has the potential to be harmful in views to and from the King's Gate due to its prominent location. This could be mitigated by material use, structure and form.

The position of the balustrade breakthrough at deck level has a harmful impact on the heritage significance of the King's Gate. Bringing the staircase this way will create and emphasise a counter-flow of circulation that is not natural for the building, both as a historic castle, and as a modern visitor attraction.

This should be mitigated by bringing the top of the staircase as close to a recognised walkway, with an appropriate amount of circulation space.





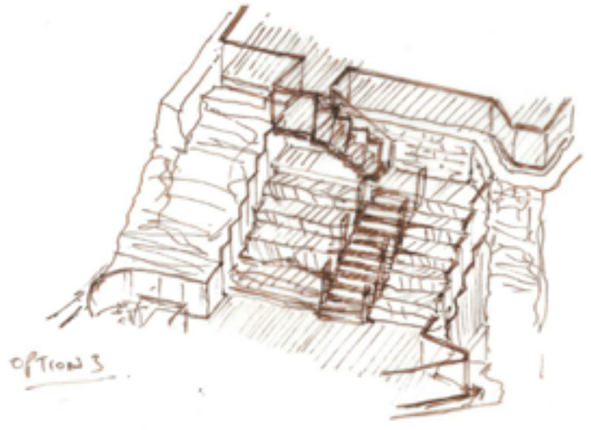
Option 3

The staircase in Option 3 interrupts the balustrade at the top deck of King's Gate at the point closest to where the wall walk joins the top deck of the Gate. This option brings the staircase down the rear wall of Tower 3, with a lower staircase integrated more centrally into the previously proposed tiered seating.

The fabric impact of this option will be substantial, due to the creation of the new upper staircase and the required structure/modelling for the lower staircase. A small amount of masonry will also need to be removed for the width of the landing to meet the new floor deck. This is presumed to be c100mm depth minimum, and relating to one course.

Bringing the lower staircase closer to the centre point of the tiered seating means that there is a requirement for additional balustrading on both flights, which will have a harmful visual impact on views to and from the King's Gate. The visual impact of both staircases could be mitigated through material use, structure and form.



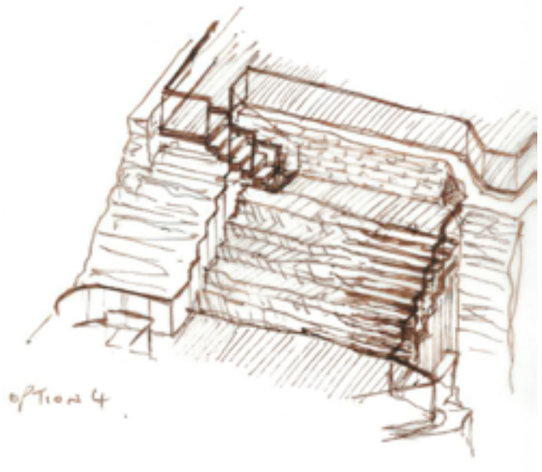


Option 4



The staircase in Option 4 interrupts the balustrade at the top deck of King's Gate at the point closest to where the wall walk joins the top deck of the Gate. It does this by creating a new platform which makes the top of the rubble consolidation accessible, and brings the staircase down the rear wall of the tower. The lower staircase is situated down the right hand side of tower three, at the edge of the proposed tiered seating.

This option avoids creating unnecessary pinch-points at key circulation points on the top deck by creating an additional space in a corner that is likely to be less populated than those previously identified spaces towards the centre of the deck. Though the deck could be considered to obscure historic fabric, the impact as limited as it is not covering the whole area of consolidation, meaning it is still clear and legible, while at the same time serving the purpose of providing additional space.



The insertion of the platform and the descending stairs down the rear wall of Tower 3 will require some fabric intervention, however, the masonry is already lower than where the landing meetings Tower 1, so the fabric impact is reduced.

The visual impact of this proposal could be considered to have a harmful impact, however, the scale of the change is minor and the proposal has the potential to be reversed. The new platform will be small enough as to not obscure views to or from the King's Gate.

The addition of the lower staircase will have no further harm on the historic fabric than the proposed tiered seating as it is a change to the form of the space rather than anything else. In this sense, the visual impact of the staircase will be wrapped up in the tiered seating.

Conclusions

In conclusion, on the presumption that structural intervention and material palette would be generally the same across all options, Option 4 appears to cause the least amount of harm to the heritage significance of King's Gate.

This is due to its response to existing historical circulation routes that are also used for tourism. Though it creates an additional small platform, it does not substantially obscure any areas of exceptional significance, and still provides visual access to the rubble rebuild between Tower 1 and Tower 3. Other options where the staircase breaks through in the middle of the balustrade, or in the centre of the King's Gate, is counter-intuitive to the natural circulation of the space.

Hugging the upper staircase along the back wall is the most appropriate solution in all options. It is unclear the moment what the structural implications of this might be. It is recommended that the structure operates under the philosophy of minimum intervention. However, whatever is required should be clearly legible as a modern structure, and not attempt to be invisible. Visual impacts can be mitigated by appropriate material use in the context of the wider scheme.

The most appropriate position for the lower staircase is to either the left or the right of Tower 3. This way, it is subservient to the principal use of the space as tiered seating, but still clearly legible as a modern staircase. This should also require less balustrading or handrails than in other positions.

16.7 Buttress. Enabling Works HIA. 2019.



Caernarfon Castle - Enabling Works

Heritage Impact Assessment
July 2019

Version history

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Project number: 8307
Client: Cadw

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4	04-11-19	FINAL	Lucy Ashcroft I Architect	Update for SMC
3	01-10-19	FINAL	Stephen Anderson I Director	Update for SMC
2	15-07-19	FINAL	Lucy Ashcroft I Architect	Reviewed by JJ
1	15-07-19	DRAFT	Lucy Ashcroft I Architect	Issue for planning

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Buttress

Buttress Architects Ltd.
41 Bengal St.
Manchester
M4 6AF

T: 0161 236 3303
W: www.buttress.net

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1.0 Introduction

1.0 Project Background

This Heritage Assessment covers the proposed enabling works located in Caernarfon Castle's Eagle Tower and Lower Ward, part of the Castles and Town Walls of King Edward in Gwynedd UNESCO World Heritage inscription. Cadw's Statement of Significance for Caernarfon Castle (3.0 Assessment of Significance), has been used as the baseline for assessing potential heritage impacts of the proposed works.

1.1 Key Details

World Heritage Property Name: Castles and Town Walls of King Edward in Gwynedd

Geographical Co-Ordinates: N53 8 23 W4 16 37

Date of Inscription: 1986

Date of Heritage Impact Assessment: January 2019

Report prepared by: Buttress Architects.

Report prepared for: Cadw

1.2 Purpose of the Heritage Statement

This document has been prepared by Buttress Architects, commissioned by Cadw to assess the potential heritage impacts of a proposed scheme of enabling works at Caernarfon Castle's Eagle Tower and Lower Ward. It is intended to reflect the national Planning Policy Wales: Chapter 6 Conserving the Historic Environment, and international UNESCO and ICOMOS guidance, in order to provide an appropriate level of analysis for a site with such a high level of significance. It will support a Planning and Scheduled Monument Consent Application for the proposed works.

1.3 Summary of Proposed Works

The scope of enabling works is a forerunner to the main conservation and redevelopment works that are proposed to introduce new and improved visitor facilities and vertical access to the battlements to the Kings Gate.

With the current main entrance for visitors, retail offer and custodian facilities housed in Kings Gate, a scheme of enabling works has been developed to temporarily relocate these services to Eagle Tower so that Kings Gate can be cleared ahead of the main conservation and construction works. A separate Heritage Impact Assessment has been developed to cover the proposed works to the Kings Gate and will be submitted as part of a separate application for Scheduled Monument Consent.

1.3.1 Experimentation

The enabling works will also provide an opportunity to experiment and explore some of the ideas and concepts ahead of the main works. Furthermore, there is a chance to assess some of the conservation principals being proposed, such as the approach to fixing into existing masonry and overall fabric repair.

2.0 Site History and Description

2.0 Historical Overview

The following Statement is extracted from the Castles and Town Walls of King Edward in Gwynedd Management Plan (2018).

Caernarfon Castle and the walled town are situated on a rocky outcrop between the mouths of the rivers Seiont and Cadnant on the shore of the Menai Strait. King Edward I established the castle and the town in 1283 to consolidate his conquest of Gwynedd and it became the seat of royal government for north Wales. Tradition holds that King Edward I's eleventh child, Edward (later crowned Edward II, 1307–27) was born here in 1284. In 1301, the young prince was invested as prince of Wales.

There was a pre-existing Norman fortification on this site and the Roman fort of Segontium lies a short distance from the castle. This was the military and administrative centre of north-west Wales throughout the Roman period and the remains of the fort can still be clearly seen. Edward I may have known that Segontium was associated with the emperor, Magnus Maximus, who, legend says, was based here as regional commander. Caernarfon's striking banded walls and polygonal towers, instead of the more usual rounded form, are widely believed to suggest that King Edward was inspired by imperial Roman architecture. Edward may also have known that Magnus Maximus appears as Maxen Wledig in Welsh mythological poetry, later recorded in The Mabinogion. In the 'Dream of the Emperor Maxen', the emperor journeys in his sleep and arrives eventually at a great castle, 'the fairest that anyone had ever seen'. Maxen sends out messengers to find the castle. First, they come to 'a great city at the mouth of the river, and a great castle in the city with great towers of different colours'. From here, they continue until they see the 'Island of Mon facing them … and they saw Aber Saint, and the castle at the mouth of the river.' It is has been suggested that this may be another reason why Caernarfon, unlike the other castles, was given a prominent patterning of bands of different coloured stone.

Although the site of the Norman motte and bailey, begun around1090, determined the shape of the thirteenth-century castle, very little is now visible (although subsurface evidence may still be present). Nor do the buildings erected by the princes of Gwynedd between 1115 and 1283 survive. The motte was incorporated into Edward's castle and the bailey survived as the area now known as the Maes (Castle Square). The first building phase, between 1283 and 1292, created the character of the castle we see today, albeit with some nineteenth- and early twentieth-century restoration. After the first phase of construction, Master James of St George was moved on to work elsewhere and subsequent construction was led by Master Walter of Hereford, later succeeded by Master Henry of Ellerton.

The layout of the town with its encircling walls was also begun in 1283 and is believed to have been largely finished by 1292. It comprises eight towers and two twin-towered gateways at intervals of approximately 64m. The town is laid out on a grid pattern much like Conwy but over a smaller area. The Menai waterfront was the first quay associated with the thirteenth-century castle and town, enabling vast quantities of building materials to be imported. It also ensured the safety of the castle's longer term supplies and underpinned the economy of the new town.

In 1294, a revolt led by Madog ap Llywelyn destroyed half the town walls and burnt the castle extensively. As soon as the revolt was quelled a second phase of building began in 1295. The town walls were repaired by Walter of Hereford and the northern defences of the castle were completed. By 1330, the castle had largely assumed its present appearance. The incomplete Queen's Gate and King's Gate suggest that further work had been intended. One major addition to the town walls was the early fourteenth-century chapel of St Mary (licensed in 1307), built into the north-west corner to provide a chapel for soldiers garrisoned at Caernarfon.

The castle successfully withstood sieges by Owain Glyndr and his French allies in 1403 and 1404. Reports of 1538 and 1620 showed that, although the masonry was sound, roofs and floors had decayed and, in some cases, collapsed. The castle was garrisoned during the Civil War and changed hands three times. In 1660 orders were given by the government to demolish the castle but, although this was welcomed by local authority, it was never carried out.

In successive centuries, as was typical, cottages were built up piecemeal against the walls. Later alterations to the walls



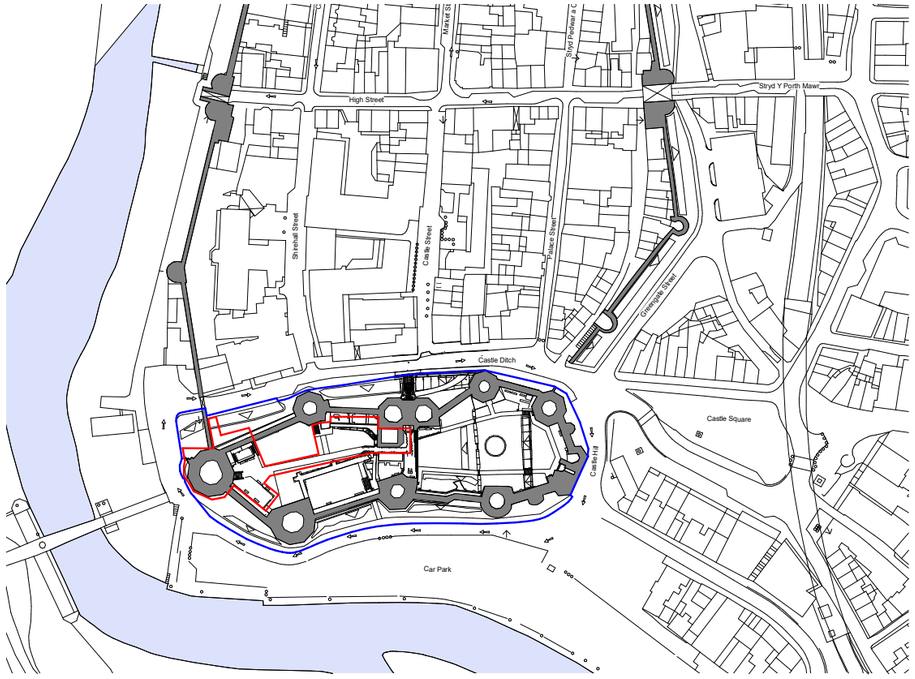
included modifications to the East Gate, firstly to provide accommodation and then, in 1767, to incorporate the town hall which was built over it, though later removed in the mid-twentieth century. The need to cater for increased traffic has resulted in successive alterations to the town gates and the introduction of additional openings.

Sir Llewelyn Turner and others were responsible for a number of changes in the late nineteenth and early twentieth centuries. Turner, who was deputy constable of the castle from 1870 to 1903, was responsible for a variety of repair and restoration work to the castle itself, and also the removal of piecemeal developments built up in the castle ditch and against the castle walls.

2.1 Site Location

Caernarfon Castle and its and associated Town Walls are component parts of the wider World Heritage inscription for the Castles and Town Walls of King Edward in Gwynedd. Therefore, the whole Caernarfon Castle site is included within this inscription, the boundary of which is indicated in blue. The proposed area of enabling works is illustrated in red.

The area of the castle chosen to accommodate the temporary facilities is focused to the west of the castle grounds and includes the lower ground level of Eagle Tower, the roof area of the existing toilet block and area of hard standing in the Lower Ward, as the area marked in red in the diagram below.



3.0 Assessment of Significance

3.0 Assessment of Significance

The significance of Caernarfon Castle has been assessed by Cadw and is included here for reference and to inform the reading of the Assessment of Overall Impacts in Section 6.

3.1 Introduction

Caernarfon occupies a special place in the history of Wales. Since Roman times, it has been a site of strategic and symbolic importance. The castle and walled town, built by Edward I were conceived as a single entity and, from 1284, served as the administrative and judicial centre of North Wales. In that year, Prince Edward of Caernarfon, who was later created the first English prince of Wales, was born within the castle walls.

The castle was built in two main phases, 1283-1292 and 1295-1323 and designed to enclose an earlier earthen motte and take full advantage of its coastal location. Built to reflect its special status, the angular towers and banded stonework recall Roman architecture. The castle is dominated by the massive Eagle Tower whose three lofty turrets were decorated with carved statues, including an eagle.

A Welsh rebellion in 1294 severely damaged the castle requiring a massive repair programme. Building continued until about 1330 though the castle was never completed as planned.

Besieged by Owain Glyndwr in 1403 and 1404, the castle was described as being in ruinous condition by 1538 and in 1620 only the Eagle Tower and King's Gate were still roofed. The walls remained sound enabling it to be held for the crown during the Civil War (1642-48) until 1646 when it was surrendered to parliamentary forces. A government order of 1660 to demolish the castle was never acted upon and by the mid-18th century Caernarfon had begun to interest artists and antiquarians.

During the 19th century the town of Caernarfon grew prosperous on the back of the international trade in Welsh slate. In the last thirty years of the century, the deputy-constable Sir Llywelyn Turner, pursued an active programme of repair and restoration. In 1911 and 1969 Caernarfon hosted the Royal investitures of Prince Edward and then Prince Charles, as prince of Wales.

In 1286 Caernarfon, along with Harlech, Beaumaris and Conwy

were inscribed as Wales's first World Heritage Site.

3.2 Evidential Value

(physical remains, fabric, buried archaeology, documents, records, artefacts)

The four castles of Beaumaris, Conwy, Caernarfon, Harlech and the attendant fortified towns at Conwy and Caernarfon are the finest examples of late 13th century and early 14th century military architecture in Europe. The following features are expressed by Caernarfon Castle: -

3.2.1 Military Features:

- Strongly defended gatehouse (drawbridge, portcullises, arrow-loops, guard chambers etc.)
- Rock-cut ditch facing town
- Complex arrow-loop positions allowing multiple shots from single loops
- Ability to isolate towers for defence
- Defended entrances at bases of towers (watergate, well tower)
- Defended walkways including internal intra-mural passages between towers

3.2.2 Administrative and Domestic Architectural features:

- Domestic infrastructure including internal features of kitchens (e.g. ovens, hearths and plumbing linking to Well Tower).
- Eagle Tower designed to accommodate very high status occupants – large apartments, chapels, chambers, varying levels of privacy, domestic facilities e.g. latrines.
- Multiple towers containing suites of domestic apartments; evidence for room function and domestic servicing arrangements (fireplaces, latrines, chapels, passageways, varying levels of privacy and access.

3.2.3 Symbolic Architectural Features:

- Angled polygonal towers, patterned masonry and eagle statues reminiscent of Imperial Roman architecture.
- Statue of Edward II above entrance.

3.2.4 Constructional Features (Some Linked to Documentation):

- Evidence for constructional phasing linked with expenditure/events (e.g. breaks between masonry lifts, wall strengthening/raising);
- Change in ground levels and window heights indicate where the earlier earthen motte was incorporated into the upper ward
- Construction break between first and second floors of Eagle Tower.

3.2.5 Evidence for Original Unrealised Architectural Design:

- Incomplete architectural elements (e.g. King's and Queen's Gates, kitchen).
- Stone "toothing" on interior facing walls.
- Buried foundation walls.

3.2.6 Evidence for 19th and Early 20th Century Restoration Works: -

- Distinctive masonry demonstrates repairs undertaken in 19th century under Sir Llewelyn Turner including stairs, newels, battlements, top of Well Tower, repairs to Chamberlain Tower, re-floored and roofed the Queen's Tower.
- Ground levels between upper and lower wards reflect 19th century landscaping.
- Floors/ceilings in Eagle Tower (Ministry of Works).

3.2.7 Relationship With Town:

- Conceived as a single entity; wide curtain wall with internal passages on seaward facing wall; narrower curtain wall without internal passages faces towards town.
- Junction with town wall at Eagle Tower.

3.2.8 Documentary Evidence:

- Royal pipe rolls outline payments for work carried out throughout period 1283 to 1327 enabling the progress of the construction work to be charted (held in National Archive, Kew).
- Studies of original records by Arnold Taylor "The King's Works"

3.2.9 20th Century Investitures:

- Slate plinth used for the 1969 ceremony.
- Slate throne and stool; examples of wooden chairs used by audience.
- Film recording 1969 event.
- Photographic and written archives (both 1911 and 1969 events).

3.3 Historical Value

(Associations with historical figures & events; Illustrations of historical periods, movements etc.)

- Caernarfon, along with the castles of Conwy, Harlech and Beaumaris, was built on the order of King Edward I of England (1272-1307), one of the principal military leaders of Europe of the time. Together the castles illustrate the way in which he exercised his power in annexed territories.
- Design and direction were in the hands of Master James of St George, one of the greatest military architects of his age.
- Caernarfon was attacked by the Welsh during Madog ap Llywelyn's uprising (1294-5) causing extensive damage to both town and castle.
- Birthplace of Edward of Caernarfon (Edward II), son of Edward I and Queen Eleanor.
- Beseiged by Owain Glyndwr in 1403 and 1404.
- During the Civil War the castle was garrisoned for the king; in 1646.
- John, Lord Byron surrenders to Parliamentary forces.
- Deputy-constable Sir Llewelyn Turner (1823-1903) carried out extensive repairs and restoration works.
- 1911 Investiture of Prince Edward as prince of Wales.
- 1969 Investiture of Prince Charles as prince of Wales.
- Incorporates Royal Welch Fusiliers Museum.

3.4 Aesthetic Value

(form, appearance, setting, artistic views and descriptions)

- Set on a peninsula of land overlooking the River Seiont with long distance views out across the Menai Straits to Anglesey.
- "Figure of eight" shape with series of towers linked by tall curtain walls; originally divided into two wards at its narrowest point.
- Distinctive banded stone masonry and octagonal towers reminiscent of Imperial Roman architecture.
- Incorporates statues including an eagle (Eagle Tower) and figurative representation of Edward II (King's Gate).
- Substantial size and with towers standing up to four stories in height; Eagle Tower has three additional turrets adding extra height.
- The restored interior spaces in the Eagle, Queen's and Chamberlain's towers are of monumental scale and include 20th century timber beams of impressive and substantial dimensions.
- A combination of Internal and external wall walks link the towers; internal wall walks only on outer (seaward) facing sides.
- Depicted by artists from 17th to 19th centuries including the Buck Brothers (1742) and J M W Turner (1833).
- Historic descriptions by travellers/writers including Dr Samuel Johnson.
- 19th/early 20th century restoration work is distinctive including restored battlements not present at the other World Heritage Castles.

3.5 Communal Value

(symbolic, commemorative, use, meaning, belief)

- Constructed to serve as a Royal base in North Wales, intended for use by Edward of Caernarfon, but in practice never used for this purpose.
- Two 20th century investitures of princes of Wales (1911 and 1969).
- Royal Borough of Caernarfon from 1963.
- 190,000 visitors per annum, mainly from England and overseas and is the primary tourism draw for the town.
- Over 6,000 educational visits per annum.
- Used today to host events and musical concerts.
- Caernarfon castle is considered by some to represent a symbol of English domination.

4.0 Proposed Works

4.0 Proposed Works

4.1 Overall Project Overview

The overall strategy of the Kings Gate project is to advance the visitor experience to the Castle and develop the understanding of the Kings Gate by improving the visitor offer, especially visitors with limited ability to access parts of the Castle.

The concept of the overall scheme is the idea of introducing ‘furniture’ into the spaces, with pre-fabricated units that can be inserted into the building with minimal impact on the existing structure. The detail and quality of the materials and elements of the design look to celebrate the Kings Gate as the grand gatehouse and high-status entrance to the castle, whilst reflecting the unfinished nature of the Kings Gate through clearly contemporary additions.

Before the work can be undertaken, the Kings Gate needs to be vacated and all of its current functions relocated so that the Castle can still operate during this time. Therefore, the strategy for the enabling works is to provide temporary facilities and install services in preparation for the main works to be carried out in Kings Gate.

With internal space limited within the confines of the Castle structures, temporary accommodation is to be provided externally with the insertion of a series of modular units. The visitor entrance is to be relocated to the Eagle Tower and will provide a temporary ticketing entrance, visitor welcome and point of egress. In addition to this, there is a need to provide short term provision for staff accommodation / storage and a catering pop-up. Furthermore, it is advantageous to use this initial phase of works to experiment and explore some of the ideas and concepts and allow for services and drainage to be put in place prior to the main phase of works.

4.2 Proposed Use

It is proposed that the lower ground level of the Eagle Tower will become the temporary visitor entrance, with a new self-contained pod to facilitate ticketing and retail. Further to this, two temporary modular units are planned to sit in the Lower Ward to provide staff mess facilities, a pop-up catering offer and storage. The installation of a service trench is required to service these units, which has been carefully considered to run along the existing pathway through the Lower Ward. In order to limit the disturbance to this area of the Castle and take advantage of the excavation works, this element of work will also provide the opportunity to install services and drainage for the main works at Kings Gate.

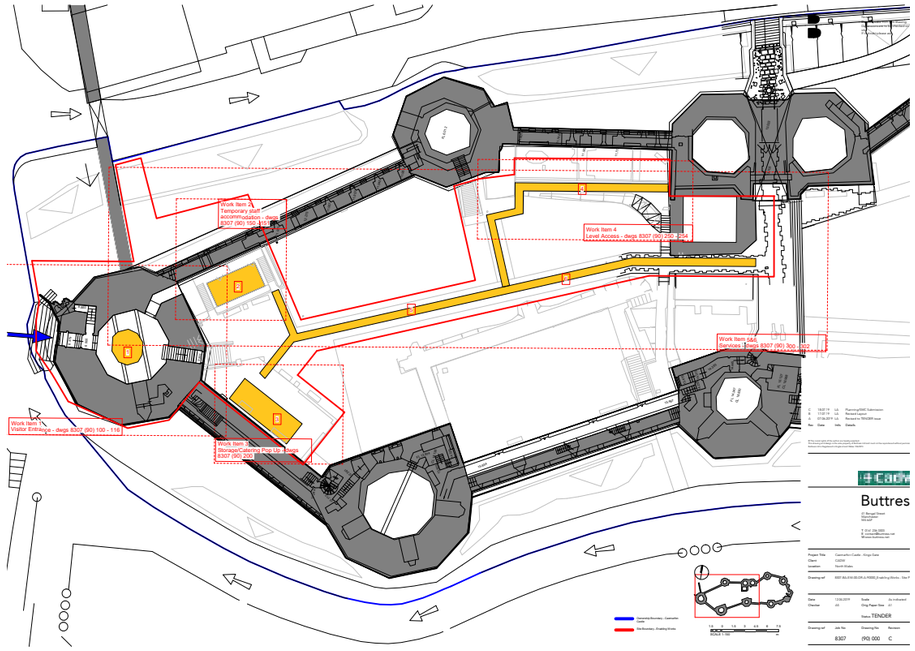
Cadw require that the temporary modular buildings not only provide a short-term usage within the confines of Caernarfon castle but that the modular buildings could potentially be reused elsewhere. The temporary units are designed and will be constructed so that they are readily able to be disassembled and relocated to other Cadw sites. The structures will be fully modular, and easily broken down into small enough segments to allow for relocation to other sites or transferred into storage.

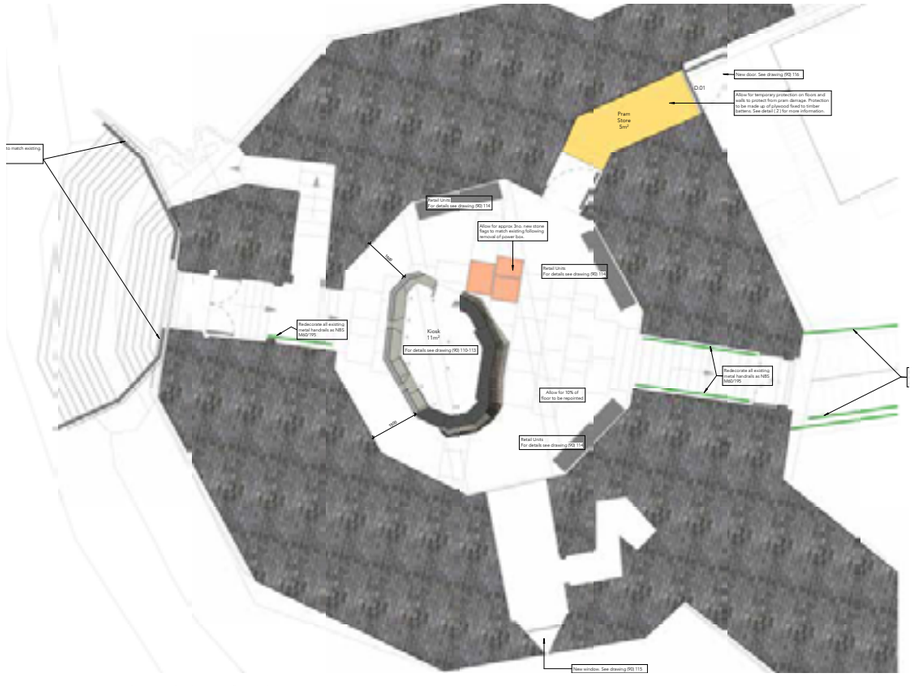
4.3 Key Areas of Intervention

4.3.1 Temporary Entrance in Eagle Tower

As noted, the proposed temporary visitor entrance will be through the lower ground floor of the Eagle Tower. Whilst it is open to the public and has previously been used for exhibitions and as a temporary entrance, it is currently empty of any interpretation and has no practical function. This level is accessed only from the Lower Ward and is not connected to any other floors in the tower or adjoining wall walks.

The kiosk will be built directly upon the existing stone floor as pieces of furniture and has been designed to be an independent unit that incorporates ticket desk, retail pay point and storage, that also works to orientate people around the space in the most efficient way. It has been designed in the same style as some of the furniture elements proposed for the Kings Gate, with the materials being used for the desk being predominantly timber, so that there is the possibility of dismantling the unit and re-using elements at a later date within the final scheme. The unit takes it's shape from the octagonal layout of the space, and is designed to sit independently in the room, so as not to detract from the space.





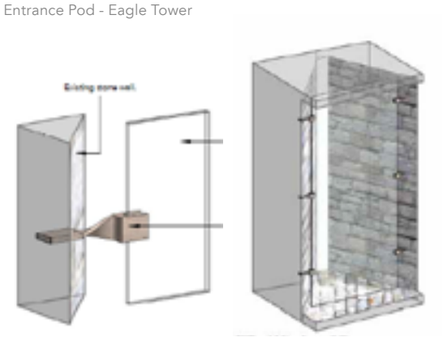
Entrance - Lower Ground Floor of Eagle Tower

In order to supply power and data to the new unit, there is a need to improve and relocate the existing power outlets, which protrude from the floor, currently masked via a loose timber box. The paving stones and cobbles will be recorded and lifted as required to allow for tracing / tracking of mains power and appropriately retained and stored, to be reinstated to match the existing arrangement. The depth of excavation for this work shall be no greater than the previously disturbed ground.

An important feature in the main works will be to introduce a glazed infill panel to arrow loops / tracery windows and existing openings to provide not only fall restraint / protection but will also aim to reduce environmental conditions with minimal impact to the existing built fabric. There is an opportunity within the enabling works to explore this design concept and apply it to the arrow loop opening in the Eagle Tower. The idea is to have a piece of glass formed to fit the opening and fixed in place with



Entrance Pod - Eagle Tower



Window Detail - Eagle Tower

bespoke steel clamps that are taken into existing mortar joints.

Current access in and out of the Eagle Tower from both the castle grounds and street entrance, is via several steps. In order to try and retain access for individuals with physical access needs, a few options were considered:

The installation of a stair lift was considered to take visitors from the base of the Eagle Tower to the Castle grounds. However, this was thought to be too intrusive to the existing fabric and would also limit the width of the stairs and effect the flow of people in and out of the Castle. To improve access into the Eagle Tower from the street, it was thought that a temporary ramp could be formed to span across the moat, starting from the arch in the castle wall and meeting the top of the Eagle Tower external steps, adapting the two areas of wall either end of the ramp to accommodate the level access. This option would again have an impact on existing fabric and would only bring people to the entrance doors; there are a further 6 steps to navigate once through these doors to reach the lower ground level of the Eagle Tower, a height of which cannot be eased through use of an acceptable ramp and would require a new floor to be installed. For full access to the Castle to be made available for those with physical access needs, all three of these interventions would need to be implemented.

Consequently, it was considered that the interventions to accommodate level access in and out of Eagle Tower would be detrimental to the existing fabric and cannot be justified due to the temporary nature of the works. As a way to assist with access into the new entrance, an extended metal handrail is proposed to match the existing on both sides of the external steps and inset into mortar joints as the existing detail.





Modular Unit 1 - Staff Accommodation



Modular Unit 2 - Catering and Storage

4.3.2 Temporary Units

The proposed temporary staff accommodation unit is planned to be located on top of the existing toilet block towards the North West corner of the Lower Ward. This is presently used by the general public and provides both female and male facilities accessed via two separate metal staircases. The toilet accommodation is below Lower Ward ground level with an undercroft beneath, which houses services and drainage connections.

This unit has a simple rectilinear floor area that sits in the same orientation and is the size of the existing toilet block roof and allows for staff kitchen facilities, seating and storage. The entrance will be located on the south elevation and accessed via a temporary deck that steps up and bridges over the existing wall. Windows on the south and east elevation will bring light into the space and allow for views out across the castle grounds. Whilst there will be a visual impact in this area, the unit will not have a physical impact on the wall behind, in order to prevent contact with the elements of significance, such as the fireplace.

The second modular unit will provide space for a kitchen/servery, a covered seating area and storage. The layout design has been developed to be a minimal, simple space, whilst still providing an efficient and pleasant area for visitors to use during the construction works to Kings Gate.

Both units are single storey structures that sit below the height of the wall walks either side of Eagle Tower and are level with the Lower Ward external levels, to minimise the visual impact on this area of the site and retain views of the castle as much as possible. Both structures will have a base that sits on reusable portable pad foundations, in order to limit the amount of groundworks in these locations.

The materials and aesthetic have been considered based on the concepts and material palette used in the main scheme to Kings Gate in order to provide continuity in the overall context of the project and to also provide an opportunity to experiment and explore some of the ideas ahead of the main works.

This includes vertical timber cladding to the walls and taken over the roof covering. A pre-weathered ‘accoya’ based timber will be used. We anticipate a condition requiring samples to be approved.

4.3.3 Service Trench

As noted, there is a need to extend the services from Kings Gate including power, data, water etc to facilitate the temporary units in and around the Eagle Tower. The agreed location to run these services is through the main pathway from Kings Gate through the Lower Ward.

Landscaping works will extend across the main Lower Ward path from Eagle Tower to Kings Gate and down the path towards the Prison tower, to allow for the insertion of below ground services. All hard and soft landscaping effected by the proposed works will be made good and returned to match original arrangement.

The layout of the existing pathway surfaces will be appropriately recorded prior to any remedial works, by recording and numbering each paving slab and re-laid to match the existing layout. Manholes, inspection chambers and cable draw pits have been carefully located to suit the paving layout and provide future maintenance access to the new service provision.

4.3.4 Drainage

It is proposed within the enabling package that future drainage connections and provisions are made for the main Kings Gate scheme, which will include additional toilet provisions. Due to existing site levels, it will be necessary to pump waste from the Prison Tower (Tower 3), up to the main Lower Ward pathway. The pumped pipework will discharge into a manhole and then feed into a traditional gravity drainage system.

Due to the highly significant existing building fabric, it is proposed that the new pumping station will be specified as an above ground unit within a shallow pit, allowing for underground connection of waste pipes from the other side of the corridor. Archaeological investigation revealed a significant early surface below a modern concrete floor in the proposed location of the pumping chamber. The proposal prevents any impact on the historic surface.

Other drainage routes were considered; such as going through the curtain wall between Kings Gate and Well Tower and running around the moat; option 2 was to core drill through the basement walls of Kings Gate. Whilst the proposed option will disturb the footpath, both of the other options were deemed too intrusive to existing significant building fabric.

The route to the proposed WC and changing places facilities in the Prison Tower, will be redesigned to accommodate level access from the Lower Ward path. There are currently 2 steps along this route, and the scheme looks to readdress the levels along this route to eliminate the steps and create a ramped access.

Re-levelling of the modern concrete surface will be done alongside the installation of drainage pipework provisions for the future main scheme as described above. The new path will be laid with stone paving flags and stone perimeter setts to match the detail seen to the main Lower Ward pathway. A steel edging strip will be on the side of the existing wall head and a small length of metal handrail to match the existing will be installed at the top of the new ramp.

It is proposed that the new drainage run will connect into the existing system based underneath the toilet block. This will require breaking through the existing retaining wall beneath the male staircase. The upper courses indicate that they have been disturbed, with a line above which modern mortar has been used. The penetration will be formed in this disturbed area.

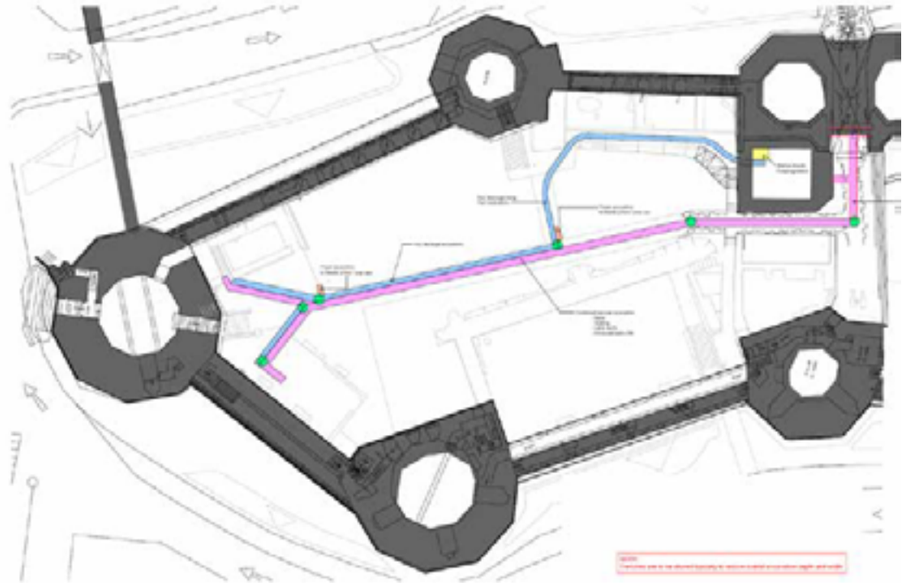
The service trench carrying drainage and other services will need to be a maximum of 1000mm deep, but with flexibility to lay them much shallower or be re-routed should unavoidable archaeology be uncovered.

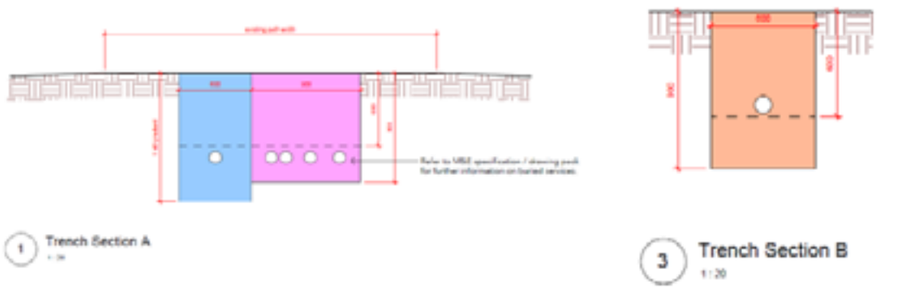
Existing Lower Ward path layout to be relayed



Existing access into the basement of the Prison Tower











5.0 Heritage Impact Statement

5.0 Heritage Impact Statement

It is acknowledged that the heritage within the context of the Proposed Scheme is complex and multi-layered; a full assessment of the overall Kings Gate project will be covered under a separate Heritage Impact Assessment. The following assessment is focused on the interventions that are part of the enabling works scheme only.

5.1 Heritage Values

It has been noted that the Eagle Tower embodies a wide range of heritage values, captured in Cadw's Statement of Significance for the Site.

The works themselves are likely to impact on a selection of these values, as noted below:

- Strongly defended gatehouse (drawbridge, portcullises, arrow-loops, guard chambers etc.)
- Domestic infrastructure including internal features of kitchens (e.g. ovens, hearths and plumbing linking to Well Tower).
- Eagle Tower designed to accommodate very high status occupants – large apartments, chapels, chambers, varying levels of privacy, domestic facilities e.g. latrines.
- Buried foundation walls.
- Floors/ceilings in Eagle Tower (Ministry of Works).

The impact assessment below focuses on the above values.

5.2 Temporary Facilities

The proposed visitor entrance, staff accommodation and catering/storage units have all been designed to be temporary installations on a three year basis; they have been designed and will be constructed so that they are readily able to be disassembled and reused elsewhere in the castle or relocated to other Cadw sites.

Whilst there will be some adverse temporary visual impact on the setting of this significant area of the castle; the location, size and scale of each unit are limited to reduce this impact on the castle setting, the Eagle Tower in particular. Both external units are single storey and sit low in the context of the wall walks and the Eagle Tower, with little impact on the main view as the eye is drawn to the higher levels of the Tower. In the case of the temporary unit over the toilet block, it is noted that it will temporarily obscure the fireplace behind, impacting on values associated with domestic infrastructure. This is a temporary visual impact and there will be no physical impact on this high significance element. The location of each unit has been carefully considered so as not to obscure any current pathways or access into any areas of the castle, therefore there will be no impact on where visitors can already currently explore.

The temporary entrance kiosk has been designed to suit the layout and dimensions of the base of the Eagle Tower and sits away from the walls and ceiling so that visitors can read the room as a whole; limiting the impact on the understanding of the space. It could also be said that the increased use of this space, as the temporary entrance will bring people into the space and improve the appreciation and understanding of the Eagle Tower.

The material palette proposed for the main scheme focuses on the simple use of timber, glass and metal to complement the existing materials found throughout the castle. The units proposed for the enabling works will be timber construction with a weathered timber cladding that reflects the materials being used for the viewing platforms in the main scheme. Whilst the materials being proposed are not necessarily congruous to the Eagle Tower setting, they are clearly modern interventions, and aim to provide context to the overall Kings Gate scheme once on site. Both external units will be the same in construction and material; clearly visible as temporary and modern next to the historic setting of the wall walks and Eagle Tower and therefore can be thought of having an honest impact on this area of the castle.

The temporary nature of the units, means that there is no requirement for permanent foundations, which allows for the units to be removed easily and the existing landscape to be reinstated, without impact on buried foundations and surfaces identified in the trial works noted below.

Alterations to the power supply within the basement of the Eagle Tower will adapt an existing installation, which necessitated previous disturbance. The floor has values associated with Ministry of Works interventions. It is considered that the heritage impact will be minimal.

Overall it is considered that the temporary modular units will not have a long term impact on the significance of the castle and will allow the Monument to remain open to visitors whilst construction works are being carried out on site, a public benefit.

5.3 Service Trench

The proposed service route along the Lower Ward pathways is considered to be the least intrusive option for supplying power, data, water and drainage from the Kings Gate. The other options would have a significantly harmful effect on existing fabric. Archaeological trial excavations have been carried out previously to inform this decision and the full excavation will be carried out under archaeological control.

The area of wall by the toilet block that needs to be penetrated for the services to be connected to the existing drainage system and connect to the new air source heat pump, is considered to be the least intrusive location. This area has previously been altered and currently has a concrete retaining wall in place. Again the work will be carried out under an archaeological watching brief to assess if any disturbance to medieval fabric is likely.

The new ramped route down to the basement of the Prison tower is necessary to provide level access into the proposed accessible WC facilities. The current path is modern concrete paving and less significant given that it is not original fabric. It is considered that the need for level access outweighs the harm in this location.

Any potential impact will be on values associated with buried archaeology. Archaeological investigations undertaken to assess the potential for buried foundation walls and surfaces on the proposed route have not identified any deposits likely to conflict with the proposed installation. Alongside this, the installation has been designed with flexibility in mind, with as much ability as possible to vary depths to suit anything that may be encountered. This makes it unlikely that there will be any significant impact, with the nature of buried deposits most likely to be walls, any impact would be highly localised.

5.4 Mitigation Measures

The archaeological significance of the site as a whole is immense and the works being proposed potentially require one of the largest programmes of archaeological excavations to be implemented within the castle walls. Whilst the physical impact of this is sizeable it is not necessarily adverse; there is a unique opportunity to enhance the current understanding of the development of the castle, and elucidate the nature of activity across the Lower Ward in the medieval and post-medieval periods.

The potential impact of the proposed works have been reduced and mitigated as far as possible through design. Where this hasn't been possible, additional measures are proposed during the works, as below.

5.4.1 Archaeological Investigations

A series of archaeological trial pits were excavated by Salford Archaeology under a previous Scheduled Monument Consent in January 2019 and April 2019, in order to establish the nature, extent and significance of any archaeological remains beneath the existing ground surface in the Lower Ward, between the Well Tower, Eagle Tower and Queens Tower. This comprised the excavation of three small trenches and seven test pits, coupled with a geotechnical investigation that sampled the sequence of natural geological deposits.

The report No. SA/2019/11 from Salford Archaeology provides a full account of these investigations and the summary below highlights the findings of the test pits in the Lower Ward:

> *The archaeological results of the test pits placed in the Lower Ward were somewhat varied, but demonstrated that stratified archaeological layers were present in places, particularly towards the western part of the area investigated, where structural and stratified layers of post-medieval, and potentially medieval date, were present. Nevertheless, it was concluded that the harm from installing a new service trench across the Lower Ward could be offset by appropriate archaeological mitigation.*

Excluding the modern overburden / hard surfacing, the removal of which will require the use of mechanical plant, the excavation will be carried out by highly experienced archaeologists using exclusively manual techniques to ensure that a detailed and comprehensive record of all archaeological layers and features is compiled to offset the harm of their removal. These layers are by no means limited to those of medieval origin, but also include deposits spanning the 15th-19th centuries, perhaps with an emphasised focus on elucidating any evidence for activity in the castle during the Civil War.

Following consultation with Cadw, it has been recommended that the excavation of the proposed service trenches under controlled archaeological conditions would represent an appropriate mitigation strategy; these intrusive archaeological works are covered by a WSI to support this Scheduled Monument Consent application and should be read in conjunction.The specific approach to any findings will be tailored to suit the remians uncovered and the accompanying WSI allows for a discussion with the Cadw/stakeholders will be kept abreast of progress on a regular / daily basis, as required, and any special circumstances will be discussed and agreed in advance of the archaeologist on site taking any action.

5.4.2 Construction Works

Mitigation measures in the form of protection to the historic fabric have been specified within the construction works specification.

6.0 Summary

6.0 Summary

Overall the enabling works scheme will provide vital amenities to facilitate the continued operation of the Monument as the main project on the Kings Gate progresses. Given that these works are considered as potentially major interventions, albeit on a temporary basis, there will be some adverse impact on the castle setting in the Lower Ward area and context of the Eagle Tower. That being said, this impact can be managed and the risks mitigated through the careful design and location of the temporary units and flexibility in design of the service trench proposals in the event of anything sensitive being uncovered during the excavations.

The key proposals to supply the new visitor entrance, staff accommodation and catering/storage are to be temporary, on a three year basis and clearly seen as modern interventions that will correlate to the overall Kings Gate scheme and provide necessary facilities to staff and visitors during the main construction works. They have been designed and will be constructed so that they are readily able to be disassembled and reused elsewhere in the castle or relocated to other Cadw sites, at which point fresh planning consent will be sought if necessary.

The new service trench and landscaping proposals are not only required to supply power, water and data to the temporary facilities but also provide an opportunity for future drainage connections and provisions for the main Kings Gate scheme. Appreciating that there is immense archaeological significance of the site as a whole, the works being proposed potentially require one of the most important programmes of archaeological works implemented at the WHS Castles in modern times. Not only is this necessary to facilitate the works but also provides a unique opportunity to inform the research objectives outlined in the supporting WSI; by examining sensitive archaeological remains it is likely that new and important information will be provided in terms of enhanced knowledge, public engagement, final dissemination in a published account. The excavation and relaying of the proposed service trenches will be done under controlled archaeological conditions, which has been considered by Cadw to represent an appropriate mitigation strategy.

16.8 Salford Archaeology. The King's Gate Historic Building Investigation Interim Report, Caernarfon Castle, Caernarfon Archaeological Evaluation. 2017

University of Salford MANCHESTER

1967-2017 50 YEARS

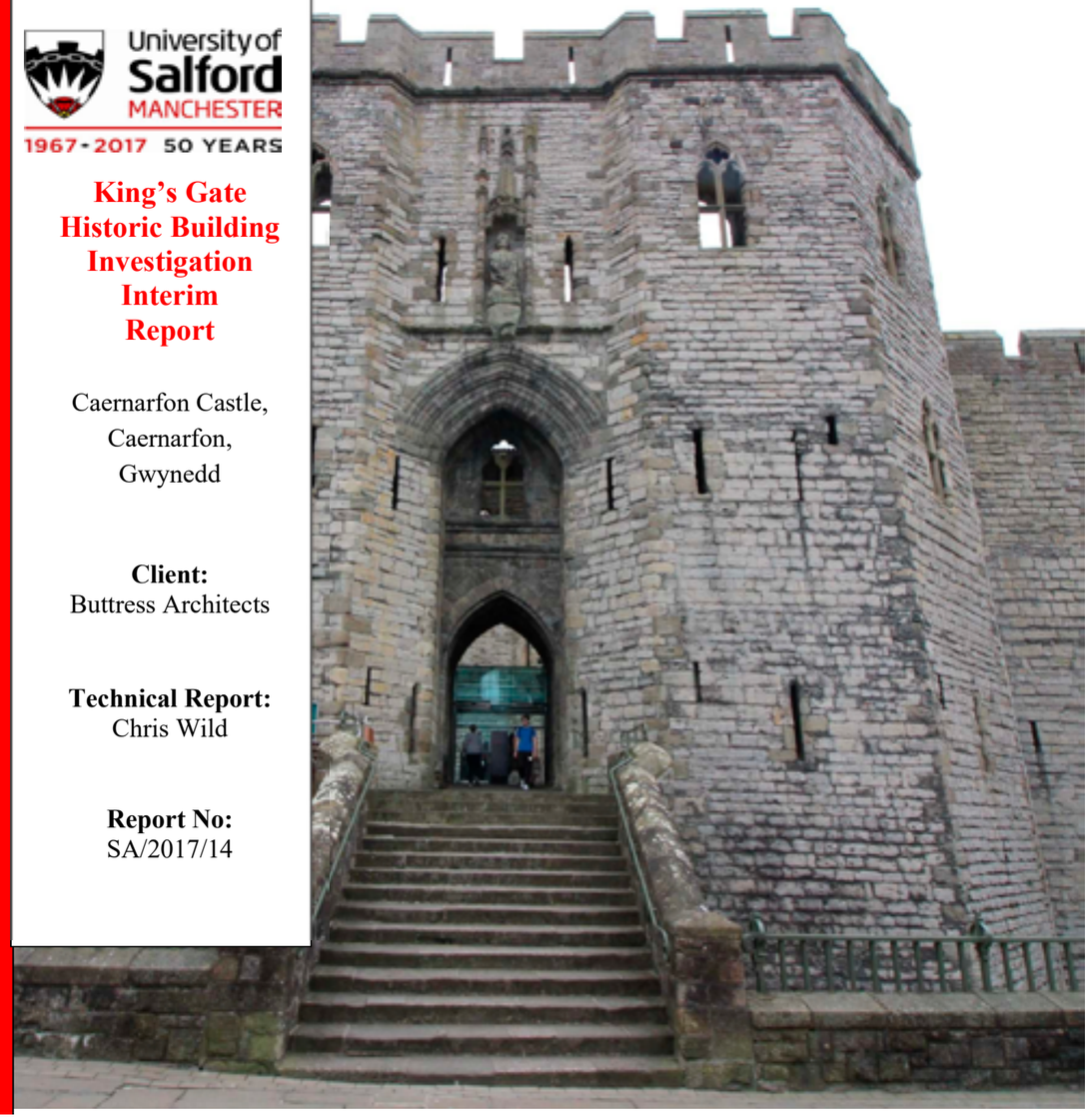
King's Gate Historic Building Investigation Interim Report

Caernarfon Castle,
Caernarfon,
Gwynedd

Client:
Buttress Architects

Technical Report:
Chris Wild

Report No:
SA/2017/14



Site Location:	King's Gate, Caernarfon Castle, Caernarfon
NGR:	Centred at NGR 247796 362683
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Author:	Chris Wild BSc
Position:	Project Manager
Date:	February 2018

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Contact: Salford Archaeology, Centre for Applied Archaeology, Peel Building, University of Salford, Salford M5 4WT

Telephone: 0161 295 4467 Email: C.M.Wild@salford.ac.uk

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Summary

Buttress Architects is preparing a planning application to remodel the King's Gate at Caernarfon Castle, Caernarfon (centred on NGR 247796 362683). The development proposals allow for the removal of existing fittings, and late partitions within the towers of the King's Gate, and the insertion of new fabric to provide enhanced facilities within the structure. The King's Gate forms an integral part of the internationally important Edwardian Castle, which was designated as a Grade 1 Listed Building in 1983 (3814), is a Scheduled Monument (CN079), and in 1986, was designated as part of the Castles and Town Walls of King Edward in Gwynedd World Heritage Site.

Following discussions with CADW, it was agreed that a detailed record of the historic fabric of the King's Gate should be compiled, in order to support the Heritage Impact Assessment being undertaken by Buttress Architects, to support an application to ICOMOS and The World Heritage committee for interventions within the King's Gate.

The historical building investigation has been devised as a two-phase process, comprising an initial survey of the currently accessible parts of the King's Gate, with a second phase to follow the proposed soft strip of the monument, which will reveal more of the historic fabric, and provide safe access to areas that are currently inaccessible.

This report sets out the results from the initial phase of fieldwork, combined with an overview of the wealth of documentary sources available, and a brief discussion of this initial analysis.

The King's Gate forms the entrance into the castle from the walled town, and represents an imposing visual monument to the military might demonstrated by Edward I in North Wales in the late-thirteenth century. It comprises four main phases of construction, comprising only the lowest part of the basement level within the original fortification of 1283. Following a Welsh uprising led by Madog ap Llywelyn in 1294/5, a second phase of construction, appears to have comprised the completion of the ground and first floors of the King's Gate, probably completed by 1304. Work appears to have stalled until the following decade, when activity was resumed within the castle, almost certainly including the completion of the second floor of the King's gate by 1320. The final phase of medieval construction appears to have ended around 1330, with what appears to have been intended as a large hall, left incomplete at the upper level of the King's Gate.

Two further important phases are visible within the extant fabric, relating to repairs undertaken in the mid-nineteenth century under the direction of the architect Anthony Salvin, and around the turn of the twentieth century by the deputy constable of the castle, Sir Llewelyn Turner. Both phases represent early and important attempts at historic monument conservation.

1. Introduction

1.1 Project Background

Initial recording of the King's Gate has been completed, but will be augmented by a further phase of survey and recording as the programme of refurbishment of the structure commences. As such, all findings to date are preliminary, and a fuller analysis of the data will be possible once recording is completed.

This report contains details descriptions of the extant fabric, where accessible, along with a short analytical discussion, mainly focused on achieving a stratigraphic constructional phasing sequence for the King's Gate. Some work has also been undertaken to suggest how the gatehouse may have been intended in its completed form, with particular focus on the layout of the probable hall on the unfinished upper floor.

A more detailed historical background, and analysis of how the King's Gate relates not only to other gatehouses within the region, but also to the other structures within Caernarfon Castle itself, will be undertaken for the final report. A workshop held on site in January 2018 provided a peer review of the findings to date, and has highlighted further sources that will be consulted in the preparation of the final report..

2. The Setting

2.1 Location

Caernarfon Castle sits on a slight ridge on the northern bank of mouth of the River Seoint, at its entry into the Menai Strait (Plate 1). The castle takes the form of a long and narrow enclosure within a single ring-wall with a polygonal tower at every angle. The Castle is located on the southern edge of the historic walled town, which lies within the western part of the enlarged modern town, on the eastern bank of the Menai Strait.



Plate 1: Recent aerial view across the study area prior to demolition

2.2 Geology

The bedrock is exposed beneath the south curtain wall externally, and comprises steeply dipping, fissile, black, micaceous mudstones of the Ogwen Group of the Ordovician period (443-488 million years) (Lott 2010).

3. Historical Background

3.1 Contextual Background

On 17 November 1276, King Edward I of England declared Llywelyn ap Gruffudd, prince of Gwynedd, 'as a rebel and a disturber of his peace' (Taylor 1963), announcing the start of a military campaign that would span over 50 years, and include a programme of unprecedented castle building around the coastline of North Wales. A key strategic element in the citing of each of the eight new major castles was the ability to be supplied by sea, making them less vulnerable to siege.

The first castles were erected at Flint and Rhuddlan in 1277, with existing castle at Builth being refortified, and the earlier castle at Aberystwyth being replaced with a new structure in the same year. A second campaign of 1282-3 incorporated a second phase of new castles, on a much greater scale, comprising those at Conwy, Caernarfon, and Harlech, all with accompanying towns, which, with the exception of Harlech, were heavily walled. Following an uprising led by Madog ap Llywelyn in 1294/5, Edward's final castle was begun in the highly strategic position of Beaumaris, on the western side of the Menai Straights, not only controlling the shipping channel, but also the fertile agricultural lands on Angelsey, which had been used to supply the rebels on the mainland.

The design of the castles has been attributed to Master James of St George, who was a master mason working, in the mid-thirteenth century, on castles in the Savoy region of Western Europe, comprising land on modern-day France, Italy, and Switzerland. Edward I probably met James whilst returning from a crusade through Savoy in 1273, to meet Count Philip I of Savoy (Taylor 1953). Master James was referred to in a document of April 1278, describing him as "ad ordinandum opera castorum ibidem" interpreted by Arnold Taylor as 'the Mason charged with the design, technical direction and management of the works underway in Wales' (Taylor 1950). He was also recorded as Flint and 'Rothelan' (Rhuddlan) (ibid), with Flint being a very similar concept to Master James' earlier castle at Yverdon-les-Bains, Switzerland (Dean 2009).

More recent studies however, suggest that James of St George's role may not have been as significant as previously suggested (Coldstream 2003; Coldstream 2010; Turner 2010), and whilst he may have been involved in the broad outline arrangement of the site plan, the design and implementation of the individual structures within the castle was almost certainly undertaken by others within the King's Works.

3.2 Caernarfon Castle

Much can be established about the detail of the construction of the castle from historic pipe rolls (published in the Bulletin of the Board of Celtic Studies). Ditching began in the summer of 1283 with the town ditch '*mota; fossatum ville'* (RCHAMW 1960). Expenditure in 1284-5 appears to relate to stonework for the town walls, although some may have been used as part of the foundation circuit of the castle. Work on masonry and carpentry for the castle is documented for the following years, peaking in the early period of 1285-7, and ceasing completely in 1292, as at the other royal castles of North Wales (BBCS 1950-2).

The town and partially-built castle were damaged by Madog ap Llywelyn in 1294, by which time it was said to have been "*put up at very great expense already*" (Hamilton 1849). The rebellion was quashed in the spring of 1295, with work resuming in earnest on 5th June, with

over 500 men being employed on the castle 'and elsewhere' by the end of the month (Edwards 1946, 71). The town wall was reported as being fully restored by 10th September, after which all resources were devoted to the castle, apart from completing several new buildings, possibly for the justiciary (*op cit*, 79; BBCS 1952-4, 132f). An instruction by the King that the castle was to be in a state of defence by November 1295 (BBCS 1952-4, 61f), suggests that the south curtain wall was at least as high as the town wall by this date. However, in a note of 25 February, 1296 he was reminded that part of the castle was still only begun:

> *on a wall begun circa motam castri were four towers also only begun, and that wall, 15 ft. thick and 18 perches long, stood 12 ft. high for 8 perches and 24 ft. high for 10 perches'* (Edwards 1946, 80; BBCS 1952-4, 63f).

During the seasons 1296-9 the rate of expenditure was high again, though less than in 1285-7. In 1299-1301 a new barricade or hoarding was made *circa castrum*, and the bridge was improved. (BBCS 1952-4, 133). There again appears to have been a short hiatus in the construction of the castle, with further work not apparently undertaken until 1304-5, when joist were supplied for the three towers of the southern frontage, and for two new wooden bridges for the castle (Edwards 1946, 48f). In 1316 timber from Llywelyn's Hall at Conway was used to build a storehouse, and timber from another hall at Aberffraw, Anglesey was utilised for repairs (PRO Cal Close R, 1313-18, 267). In 1316-17 a stone eagle was set atop the Eagle Tower, which had been '*made anew*' (Peers 1917, 41), suggesting that the upper storey had been completed, and roofs on other towers were being leaded (*Op cit*, 46f). Expenditure on the castle as a whole slowed after 1317, although what work did continue appears to have included construction on the King's Gate, where the statue of Edward II was placed above the gate in 1320, and timber was bought for roofing the hall over the gate (*Op cit,* 17f; Edwards 1946, 50).

Work on the castle certainly continued to 1326, when a granary was erected (PRO Cal Close R, 1323-7, 445, 451), and may have continued until 1330 (RCHAMW 1960, 125). A survey of 1343 (Peers 1917, 19), stated that the Eagle Tower, Queen's Gate, King's Gate, and a 'tower adjoining the gate' were still unfinished. This appears to signify the final phase of initial construction of Caernarfon Castle, although several repairs and additions are noted in the remainder of the medieval period. In reference to the King's Gate, these notably include reference to work on the windows of the 'Prisonhouses' in 1434-5, and to the 'Black aley' (sic), to the south of the King's Gate, in the early-sixteenth century (*Op cit*, 23f). The castle became neglected later that century, and by 1595, a survey recorded that the Prison Tower was no longer fit for purpose (*Op cit,* 24-6).

Caernarfon Castle re-assumed a military role during the Civil War of the seventeenth century, being garrisoned for the king, and besieged and taken on three occasions (RCAHMW 1960). Although the castle escaped slighting by Cromwell, its demolition was ordered by Charles II in 1660 (Anon 1846, 150). However, it was possibly only buildings within the courtyard of the castle that were destroyed, with the majority remaining intact. The castle remained as crown property, although an interest in purchasing the castle was made in 1815, by its constable Henry Paget, Earl of Uxbridge (Avent 2010). A survey and valuation was commissioned, reporting in November of that year that 'the whole castle is in a most ruinous state' (PRO Works 14/9,f.9).



Artistic impression of the King's gate from European Magazine, 1808

Parts of the castle were occupied for storing blasting powder, keeping ammunition, as a guardroom for the local militia, and by the harbourmaster, with the possibility of there being a separate occupier within the Eagle Tower (ibid f.10). In March of the following year, the Commissioners of Woods, Forests, and Land Revenues decided not to sell the castle (PRO Works 14/10, f.2). In early 1845, following a collapse of masonry at the Queen's Gate, and a further imminent fall of precarious masonry, the commissioners approved emergency repairs, and appointed the architect Anthony Salvin to quote for stabilisation repairs, which he undertook from July of that year until May of 1847 (Avent 2010, 141). A sketch drawing of the interior of the castle by Salvin (Plate) shows the King's gate to be overrun with vegetation, and with significant collapse at the south-western corner of the Prison Tower, whilst the buildings of the south curtain wall appear far better preserved. Other artists impressions of the exterior of the King's Gate from around the same period (Plates), also show significant vegetation having taken hold, and several areas of collapse, particularly on the battlements and within the upper windows.

Salvin had worked previously at Norwich, Newark, and Carisbrooke castles, and appears to have concentrated his efforts on the consolidation of the exterior, where there was greatest risk to the public (Anon 1864). In the following year Salvin was also commissioned by the then deputy constable, John Morgan, to design new gates for the main entrance (Avent 2010, 142).



Undated photograph, probably c1896 showing Salvins work to the King's Gate (CADW Archives CN079-DOE-1R-02-004696a)



Undated photograph, probably c1896 showing Salvins work to the exterior of the King's Gate (CADW Archives CN079-DOE-1R-02-004696e)

Morgan was replaced as deputy constable in 1870, by Sir Llewelyn Turner, who spent the following 31 years repairing and reconstructing the castle, the work being largely funded from the 4d admission charge for visitors. Turner worked throughout the castle, and it appears that works relating to the two gatehouses formed the final phase of his efforts; the King's Gate being 'seriously taken in hand' from 1896 (Avent 2010, 144), after being captured in a photograph probably taken earlier that year (Plate).



Undated photographs taken during Turner's works on the King's Gate (CADW Archives CN079-DOE-1R-02-002603b)

Turner died in 1903, and the management of the castle was formally transferred to the Office of Works in 1908. It was undoubtedly Turner's work in restoring towers and battlements, and replacing staircases to enhance public access, that the use of the castle for the investiture of Edward, Prince of Wales in 1911, was ever considered. Photographs taken during preparations for the investiture show the King's gate following Turner's consolidation work (Plate), and although much work was carried out within the interior of the castle, it is likely that the replacement of ceiling beams within the towers of the King's Gate may well have formed part of a similar programme of timber replacement within the Queen's Tower in 1912/13 (The Times, 6th June 1913).



Photograph of May 1911, during preparations for the investiture of Prince of Wales

A major episode of repointing was undertaken by the Office of Works, using lime mortar, 'set back from the wall face' (Avent 2010, 148) implying that the work undertaken by Turner may have involved modern cement-based mortar with flush or struck jointing. Later work undertaken by the renamed ministry of Works mainly improved safe access to the King's Gate, with the addition of railings atop the wall walks around the upper floor, and the replacement of the bridge above the southern side of the chapel, and a new bridge inserted at second floor level within the west tower in 1953 (RCAHMW 1953).

4. Historic Building Investigation

4.1 Introduction

The King's Gate represented the northern entrance into the castle from the walled town, accessed via a drawbridge across a ditch, and placed approximately centrally within the north curtain wall. It is a multi-phase structure, spanning almost 50 years of construction, and even though it was not completed, it represents one of the finest gatehouses in the British Isles.

It comprises two broadly octagonal towers, placed either side of the entrance gateway, rising approximately 26m above the moat, and linked above the gateway at, what is now second floor level, by a chapel. A rectangular tower, placed to the rear of the western octagonal tower was known as the Prison Tower, but formed an integral part of the gatehouse, providing the only extant access to the upper levels, and certainly providing the only historic access to the western part of the upper gate. As with many of the names for structures within the castle, the name Prison Tower, appears to represent a renaming of the original structure.

Each tower appears to have provided storage at basement level, and although heavily defensive in its nature, the entrance passage appears to have been flanked by large receiving chambers, rather than smaller guardrooms. The first floor comprised a mezzanine overlook to either side of the entrance passage, but latterly included an inserted level within the eastern tower, used for storage for the present visitor shop. The second floor appears to have provided two further rooms of high status, separated by a central chapel, which was most unusually placed on a north/south alignment, to fit within the architecture of the gatehouse. This also housed the headgear of two portcullises, showing a compromise between defense and daily life within the design of the King's Gate.

The upper floor was never completed, but it appears that a large hall, possibly for the constable, was intended for the majority of its western side, whilst still accommodating access to the battlements at its lower status eastern side.

The fabric of the King's Gate also retains fabric relating to the consolidation and remodelling interventions from the mid-nineteenth century, which represent an important early example of historic building conservation.

4.2 Descriptions

External Elevations:

Northern façade: the imposing northern façade of the King's gate represents the intended principle access from the walled town. The original drawbridge has long been lost, but its deep pit survives intact beneath timber boarding. The dry ditch was partially re-excavated in the late-nineteenth century, although the extant single-span access bridge is possibly earlier. A further access ramp was added on the eastern side in 2015.



View of the King's Gate from the North-west

The façade comprises the projections of the two irregular octagonal towers that form the gatehouse, with a rebated linking block above the 15' (4.57m) high entrance doorway. Construction is almost exclusively in pale limestone, almost certainly of local origin, comprising roughly-dressed rectangular blocks, laid in irregular courses. The angled returns of the towers and other architectural details are generally highlighted with pale yellowish sandstone, again, almost certainly of local origin. It is notable that neither the gatehouse nor the adjacent curtain walls have the sandstone banding seen on the southern side of the castle.

The King's Gate appears to have been erected in four main phases from *c* 1283, and this sequence, as well as several seasonal construction 'lifts' are visible within the northern façade.

The primary phase followed immediately following the excavation of the large ditch to the north of the castle, and comprised only a foundational level for the King's Gate. This earliest fabric is clearly visible in the adjacent curtain wall to the west, but is less distinct within the façade of the gatehouse, which was presumably constructed to a higher standard. However, a slight change in fabric, mainly identifiable in the east tower by the use of greyer, more finely-dressed quoins, and by tighter jointing beds and darker limestone in the west tower, appears to comprise the lower 24' (7.32m) of the visible wall, which may retain a sloping plinth, or 'glacis' below extant ground level within the ditch.



Northern façade of the King's Gate

The second phase of construction immediately followed the liberation of the town from the occupation by Welsh forces led by Madog ap Llywelyn in an uprising of 1294-5. This appears to have comprised the completion of the gatehouse to ground-floor level. However, the fabric of the north façade, as elsewhere within the King's Gate, strongly suggests that this was undertaken within two distinct episodes. The first of these completed the basements, each with a 6" (0.15m) wide, 3' (0.91m) tall loop in the angled outer face, presumably included primarily to afford some light into each basement. The walls continued for a height of approximately 20' (6.1m) to form tall ground floor rooms, with mural passages. These had central 5' x 7" (1.52 x 0.18m) arrow loops, with external sandstone surrounds on all the outer faces of each tower, and adjacent to the gate on the inner-facing elevations. The northern and north-western elevations of the west tower, and the north-western elevation of the east tower also included shorter 3' (0.91m) tall, 6" (0.15m) wide loops, offset 3'6" (1.07m) higher up the wall face.

The subsequent phase of construction of the external northern façade of the King's Gate appears to have comprised the raising of the walls by a further height of approximately 12' (3.66m), creating a relatively low upper floor within each tower. These again included mural passages, with complex multi-directional arrow loops. The northern face of both towers have a pair of arrow loops, the inner being 5'1" (1.55m) tall and 7" (0.18m) wide, each slightly bulging at its base to increase the firing angle, whilst the outer arrow loop is narrow at its face, and taller in the west tower (5'6" (1.68m)), and shorter in the east tower (4'10" (1.47m)). A further arrow loop in each mural passage was placed in the inner face of the tower at this level, overlooking the entrance, and was similar to the inner loop in the north face. The west tower had an additional short loop in the north face, measuring 2'8" (0.81m) high and 9" (0.23m) wide, providing light to a garderobe within the western end of the mural passage.

A further constructional lift of approximately 16' (4.88m) height extended the second floor to full height, and appears to have included the construction of the chapel between the two towers.

This has a recessed façade, behind the tall outer two-centred Gothic arch of four orders, the outer three being wave-moulded, whilst the inner is chamfered to match the quoins of the entrance. Immediately above this arch is a moulded string that carries the base of a 3'6" (1.07m) niche, housing a seated figure, which although heavily weathered, appears to be grasping a sword hilt, representing the figure of Edward II installed in 1320. The carving has been heavily repaired with brass straps, to prevent further cracking and collapse, although it is unclear whether this work was undertaken by Salvin, Turner, or under the earlier part of custodianship by the Ministry of works in the early twentieth century.



Upper part of northern facade

The niche has an embattled and crocketted canopy, set between crocketted pinnacles, all of which appear to form part of a slightly later construction. The chapel window is set behind a 4" (0.10m) diameter rounded portcullis chase, and comprises a further two-centred gothic arched aperture of 3'6" (1.07m) width, above two moulded string courses. The aperture retains an original chamfered transom and two piece mullion below trefoil cusps and a quatrefoil within the arch head, the central stone most probably having been replaced in the 1890s.

This phase of wall also includes windows of similar style to that of the chapel within the north-west wall of the west tower, and north-east wall of the east tower. Both are of 4' (1.22m) width, and appear to have replaced mouldings, except those members forming the arch, with the eastern example also having twentieth-century leaded-light glazing. This is flanked on its northern side by a 9" (0.22m) wide, 2' (0.61m) high loop into the mural garderobe, also latterly glazed. Within the short length of the east wall of the tower, where it projects beyond the curtain wall, is a rectangular window aperture of 3' (0.91m) width and 5' (1.52m) height, with plain chamfered external surround. Within the west tower, the window in the mirrored position is much more ornate, comprising a pair of shouldered flat-lintel lancet windows, retaining an original chamfered mullion between, within an overall aperture size similar to that in the east tower.

The upper 17'6" (5.33m) of the northern face, below the string course to the rebuilt battlements comprises smaller, more roughly-faced limestone blocks. This forms the only element of a hall above gatehouse that was constructed, and contains three large windows, similar to those of

the lower floor, but of 4' (1.22m) width and a greater 10'6" (3.20m) height than those below. All internal elements of tracery have been replaced, including those forming the two-centred pointed arches. The string course is heavily weathered, suggesting that it represents an original feature for all but its eastern end, and comprises a simple torus below a bead mould, similar to those above and below the chapel. At its eastern end the string is replaced above a section of rebuilt wall, undertaken predominantly in darker, pinkish stone (probably a sandstone), and darker grey limestone, roughly built to course, and representing a repair of the north-east corner of the upper King's Gate, almost certainly undertaken by Anthony Salvin in the 1840s. The toothing at the southern end of the unfinished wall was also replaced in pale whitish granite.



Rebuilding at the top of the east wall and battlements

The battlements above represent a later repair, undertaken by Llewellyn Turner around 1896, and comprising similar pinkish stone with dressed yellowish sandstone quoins to the embrasures, around the angles of each tower, and forming the surrounds to the 5½" (0.14m) wide, 4'6" (1.37m) tall arrow loop within each merlon, which is capped with a saddleback profile with a three-quarter roll mould at its summit.

Eastern façade: the eastern face of the King's gate is partly obscured behind the curtain wall to the Granary Tower, the wall representing a contemporary feature, with communication at wall-walk level above the second floor. Below this level, the curtain wall represents a solid 10' (3.05m) thickness, with features on its inner face relating to a former two-storey range. The east wall of the King's Gate projects only 15' (4.57m) beyond the curtain wall, terminating in toothing for its supposed extension. However, much of this appears to have been remodelled in the 1840s, comprising pale granite facing stones. The remainder of the wall appears to comprise three constructional phases, the earliest being of roughly-faced dark grey limestone to a height of only 4'3" (1.30m) above existing ground level, which is 1.47m higher than that of the internal ground floor within this part of the Upper Ward. The constructional lift above, is 14'9" (4.50m) high, and of paler, larger block limestone, and contains a 15½" wide, 3'9" (1.15m) high rectangular window with plain chamfered surround. This has an untidy two-piece sill, and is surrounded by irregular limestone fillets, suggesting that it represents an insertion.



East wall of the King's Gate and adjacent curtain wall

The wall above comprises approximately 18' (5.49m) of predominantly pale, coarse-grit sandstone, with smaller limestone fillets, and is capped with four courses of smaller limestone and fine sandstone blocks, representing rebuilding most probably in the 1840s. This also retains a decoratively carved drain spout, possibly designed as an eagle head/beak, and forming part of the nineteenth-century repairs to the structure, most probably in the 1840s.

In the upper north part of the wall, an 18 x 9" (0.45 x 0.23m) rectangular socket represents a beam slot for a wall plate, placed along the face of the adjacent curtain wall, and presumably carrying the roof of a two-storey structure between the King's Gate and the Granary Tower. A roof scar for this building on the western side of the Granary Tower suggests that the building was approximately 17' (5.18m) wide, and would have therefore have had a return at the extant southern end of the east wall of the King's Gate, which is up to 15'4" (4.67m) wide.



Sockets in the upper east wall

Three smaller voids in the east wall appear to form the only examples of putlog holes observed within the King's Gate. That within the second phase of construction, is 9" (0.23m) wide and 12" (0.30m) high, and placed approximately centrally within the width of the wall, but appears too low in its position to have carried a small beam. Those within the later phase are of horizontal shape, both approximately 6" (0.15m) high, and of 12" (0.30m) and 1'8" (0.51m) length, and offset diagonally across the wall face.

Southern façade: the southern face of the King's Gate is only visible on its eastern side, the western side being obscured behind the contemporaneous Prison Tower. The façade of the east tower is recessed behind two projecting wall stubs, the eastern being of 9' (2.74m) thickness, and forming the proposed outer wall of the extended gatehouse, whilst the west wall is of 5' (1.52m) thickness and would have formed the partition from the south-east tower to the entrance passage, had it been completed. The wall face between is of up to 23'6" (7.16m) width, but with a corbelled angle across the return of the west and north elevations above ground floor level. The corbel comprises three raking courses of yellowish coarse-grained sandstone, the lower two comprising single chamfered blocks across the junction of the two walls, whilst the upper course comprises a row of convex quarter-round corbels. The pier appears to form part of the upper extension of the tower, forming a second floor, and again predominantly comprising large blocks of coarse-grained sandstone. This has a central tall narrow window, of 6' (1.83m) height and 1'6" (0.45m) width, affording light to a mural passage and into the chamber within the east tower beyond.

Towards the top of the second floor level, six sandstone corbels project from the wall face. All are of chamfered two-piece construction, with angled upper faces suggesting that they formed springers for stone or timber arches, rather than carrying a wall plate. The upper three courses represent the rebuilt wall head, forming a parapet to the extant wall walk around the top of the King's Gate. Late-nineteenth century photographs show that this work was already completed prior to the refurbishment of the battlements by Llewellyn Turner in 1896, suggesting that it was undertaken by Anthony Salvin in the 1840s.



Southern façade of the east tower



Corbels carrying the ceiling of a structure on the southern side of the east tower

Below the second floor extension, the earlier fabric appears to comprise two phases of construction, the lower 1.80m above present ground level appears to comprise the earlier phase, built to the height of the passages off the main entrance to the west, and formed of grey limestone and yellowish sandstone blocks, roughly coursed and with a course of narrow fillets at its western side producing a level surface to the wall head at this time. The subsequent construction lift comprised 7' (2.14m) of more irregularly-sized, but squared limestone blocks, built to course, erected to ground-floor ceiling level within the east tower.

The south wall continues to the west, forming the façade of the extant entrance passage, where it has a simple two-centred arch with chamfered sandstone quoins, angled more steeply than those to the north within the main gate, apart from that centred 7' (2.14m) to the north, and forming part of the same phase of construction. The facing arch was placed flush with the projecting walls either side of the entrance passage, 6'6" (1.98m) forward of that of the east

tower. Above the spring of the arch, the toothing for extending walls at upper-floor level narrowed in the east wall to only 3'6 (1.07m) width, similar to that on the west side of the passage. The spandrel is mainly of sandstone block construction, with two more irregular courses above the arch, below three rebuilt courses dating to the 1896 refurbishment of the King's Gate.



South wall of King's Gate above entrance passageway (G7)

Western façade: the western elevation of the King's Gate projects beyond the curtain wall, where it is described as part of the northern-façade. To the south of the 7'3" (2.21m) thick curtain wall to the Well Tower it comprises two parts; the west tower of the gatehouse; and the Prison Tower.



West wall of the King's Gate and adjacent curtain wall

The earliest element of the west wall of the gatehouse is obscured within the Lower Ward, being approximately four courses below present ground level externally. The lower 8.9m height of the visible wall appears to represent a single built within the west tower, mainly comprising small grey blocks of squared limestone, with occasional use of yellowish sandstone. The wall is rebated 7½" (0.19m) above an offset, placed 2.14m above present ground level and forming the base of a series of six approximately square sockets of 1'7" (0.48m), separated by a 1' (0.30m) wide sandstone block, and presumably housing close-set joists for a strengthened floor for the first-floor level room to the east of the kitchen against the curtain wall.

The tower appears to have been extended by 8'3" (2.52m) in height concurrently with the construction of the Prison Tower. Within the west tower, it comprises a mixture of mid-grey limestone and sandstone blocks, devoid of features, whilst the adjacent Prison Tower, which projects flush with the face of the lowest part of the exposed west wall, is almost exclusively of roughly-squared limestone block construction, with sandstone quoins to the return to the west tower and around apertures.

A ground floor doorway, of 4'9" (1.45m) width has a rebated, shallow two-centred arch of two orders, the inner being chamfered, and the outer forming the facing to a portcullis chase, of 6" (0.15m) width and 18' (5.49m) height. The outer face of the chase was flush with the façade of the tower, and comprises pale yellowish coarse-grit sandstone blocks, chamfered around the doorway, to what appears to be a broken springer for an arch in the south jamb, 6'6" (1.98m) above threshold level. The jamb on the northern side of the door at this level has been lost, as had much of the wall facing below a straight-sided 2'7" (0.79m) widow aperture at ground floor level within the tower, and in front of which the portcullis would have sat when raised. The outer facing of the lintel has a flat, shouldered lintel, comprising a chamfered single-piece lintel carried on concave quarter-round corbels, typical throughout the castle. Two sockets visible in the lintel demonstrate the use of vertical iron bars within the outer aperture, with the damaged remains of at least two sockets for horizontal bars in the jamb.



Defended entrance to stair between Upper and Lower Wards

An arrow loop was placed centrally between the basement doorway and the southern return of the tower, primarily to light an internal stair (***B5***), reflected by its 6½" (0.17m) width and wide external chamfer. A slightly wider 13" (0.33m) aperture above, placed centrally within the west wall of the Prison Tower afforded light to a passage (***S6***) leading from the spiral stair in the south-western corner of the tower (***S7***), whilst a larger, 3' (0.91m) wide, 5' (1.52m) tall window, set higher in the wall, lit the passage (***S6***) and the doorway into an intended room at first-floor level (***S9***) within the Prison Tower. All have simple chamfered surrounds, below flat lintels, with the larger window retaining the mouldings within the lintel and sill for a central chamfered mullion.

A smaller, but similarly proportioned 4' (1.22m) window in the upper part of the west tower has similar mouldings within the lintel and sill for a former mullion, and represents the upper extent of an approximately 7' (2.14m) additional build to the west tower, and predominantly of coarse-grit sandstone of varying sizes, built to course. This is capped with between three and four courses of sandstone and limestone, which form a parapet to the extant wall walk around the top of the King's Gate, probably dating to the mid-nineteenth century.

The upper part of the Prison Tower also represents a rebuild of mid-nineteenth century date. To the south of the upper window, the upper 6' (1.83m) of the wall was rebuilt, using a mixture of stone types and sizes, built to course. This incorporated a shaped drain spout, similar to that

seen in the east elevation of the King's Gate. The rebuild continued above the window as a raking buttress to the east tower of the King's Gate, with historic photographs showing this as having an apparent bituminous covering in the late-nineteenth century, when the Prison Tower formed the Custodian's Cottage for the castle. However, this was removed during refurbishment of the gatehouse by Llewellyn Turner in 1896, with the wall being capped with rounded rubble core.

South Elevation of Prison Tower: the southern façade of the Prison Tower forms the southern extent of the King's Gate, but was originally been intended to form the northern side of a passage forming a return of the heavily fortified entrance through the gatehouse, often referred to as the 'Black Alley', although the fourtheenth century reference may relate to structures elsewhere. The extent of the level of the completion of this passage remains unknown, but the extant fabric of the southern elevation of the Prison Tower affords much detail about its intended form. It appears to represent a single phase of construction, comprising squared and irregular limestone blocks, generally built to course, further suggesting a proposed internal arrangement, rather than representing the outer face of the imposing King's Gate.



South elevation of the Prison Tower

The upper 5' (1.53m), above a first-floor-level doorway, represents a mid-nineteenth century rebuild, which included a rebuild of the tiered south-west return of the tower, where toothing was either rebuilt, or replaced broken masonry pertaining to a proposed or actual arch over the western end of the passage to the south. This rebuilding partially blocked an arrow loop, accessible from the stairwell within the tower (***S7***), and overlooking the external face of a portcullis, the chase of which appears to survive to full height. At ground floor level, this was housed within a quoined and chamfered projecting jamb of dressed limestone, forming a 2' (0.61m) pier around the 5½" (0.14m) wide chase. Above what appears to have been a springer on its eastern, internal side, the chase is rebated slightly into the wall face, for a height of 10' (3.05m), possibly suggesting the intention of an aperture at this level, below five projecting stones that form the head of the portcullis chase. A 10" (0.25m) wide rebate in a shallow plinth,

that projects above the sloping ground level in the western part of the elevation, represents the only visible remnant of a drawbridge housing, further controlling access between the Upper and Lower Wards.

A similar portcullis chase at the eastern end of the south elevation of the Prison Tower has the partial survival of springers for an outer arch to two additional courses in height, with a possible aperture of only 4' (1.21m) height above, almost certainly representing an arrow loop. Partially projecting keystones for a wall above survive for a height of 10'6" (3.20m), the upper part forming part of the mid-nineteenth century rebuild, which probably removed the head of the portcullis chase. On the inner side of both portcullis chases three horizontal shallow rectangular sockets within the wall, typically 8" x 4" (0.20 x 0.10m), almost certainly represent housings for pintels to hang doors inside the portcullis.

A 3'7" (1.09m) wide doorway at external ground-floor level, placed approximately 6' (1.83m) inside the eastern portcullis and door has chamfered jambs to a two centred arch with limestone quoins. This is flanked on its western side by a loop of 7" (0.18m) width, and 4'3½" (1.31m) height, presumably built as a slight compromise between defensive and lighting purposes.

Above the door and window, two irregular two-centred arches are visible within the facing stones of the south elevation. The crown of each arch is approximately 4'4" (1.32m) above that of the internal vaulting (***G6***), demonstrating that the facing stones in the south elevation relate to two barrel vaults above the passage to the south of the Prison Tower. At their junction, the arches are carried on a three-piece, coarse grit sandstone corbel, which although heavily weathered tapers to a point carved within the lower stone, and possibly had decoration, even a face, in the two stones above. The outer springers of the vaulting sit immediately behind the portcullis chase at either side of the façade. The exact purpose of the arch within the wall face remains unclear; the stones of the arch may represent infill of a rebate intended to key a vault into the wall, once it became clear that the passage might not be completed in its original design; they may depict the line of the intended vaulting, with the intention of removing several stones to key in the vault during construction; or they may represent infilling following demolition of the passageway and potential structures on its southern side, although the use of moulded keystones within the apex of both arches makes this highly unlikely.



Outline of barrel vaulting profile in southern elevation of Prison Tower

The vaulting appears to have been intended to carry a floor above the passageway, at the very least to provide access to the portcullis winches. Access was via a corridor at first floor level (S8), through a 3'9" (1.09m) wide doorway, with chamfered surround and moulded 'shoulders' carrying the flat lintel. This suggests that the range of buildings was intended to cross the division between upper and lower wards, and were to be of at least the height of the extant Prison Tower, although toothing in a corresponding position within the Chamberlain Tower, to the south, suggests that the range may have been intended to match the full height of the Chamberlain Tower and King's Gate.

South-Eastern Elevation of Prison Tower: at its eastern end, the south wall of the Prison Tower had a short return, placed at an angle of 43°, which was intended to form an angled passage from the main entrance around the southern side of the Prison Tower. As with the southern elevation, the upper 5'9" (1.76m) was rebuilt in the mid-nineteenth century, comprising roughly-faced mixed stones, built to course.

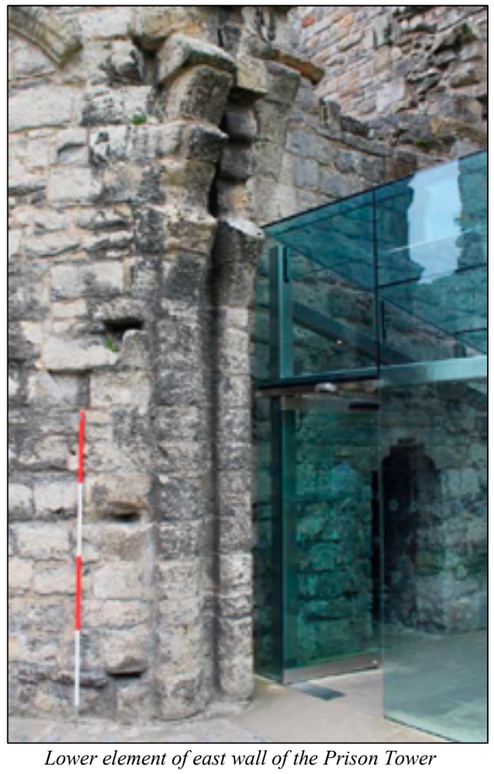
At its north-eastern end, the elevation terminates in a further portcullis chase, similar to those of the southern façade, with good survival of the springer for an arch, set one course higher than that at the east end of the south wall, 9'6" (2.90m) above present floor level.

The elevation houses a projecting wave-moulded rib for a two-centred arch, the apex of which is 17'6" (5.33m) above present ground level. This was presumably intended to carry a barrel vault across the angle of the passage between the King's Gate and the passage to the west.



Angled south-east return of the Prison Tower

East Elevation of Prison Tower: the east elevation of the Prison Tower survives to a height of approximately 16'6" (5.03m), and for a length of approximately 12'8" (3.86m), where it is keyed roughly into what appears to have been a short stub of wall, projecting beyond the west tower of the King's Gate, built during an earlier phase specifically to facilitate the addition of the Prison Tower. It is predominantly of limestone block construction, but of varying sizes, built to course, unlike the more formal elevations elsewhere within the King's Gate. It houses the principal access into the Prison Tower, which was formerly used as a Custodian's Cottage. The doorway is much wider than those in the main gateway to the south, being 3'6" (1.07m) wide, as opposed to around 2'7" (0.79m), demonstrating the reduced defensive qualities. It has plain limestone reveals, without the use of dressed quoins, below a shouldered arch in coarse, gritty sandstone, only the lintel of which has an exaggerated chamfer.



Lower element of east wall of the Prison Tower

Above the door, two springers for further rib vaulting survives at a height of 13'3" (4.04m) above present ground level, level with those of the extant rib vaulting to the north, but of far greater width than the two immediately adjacent, and, placed on 4'6" (1.37m) centres. The southern springer retains four elements, forming a deep-chamfered rib, placed immediately below a projecting string course in the wall above, whilst the northern example has both the upper stone and the string course replaced with limestone rubble. A vertical butt joint, 1'4½" (0.42m) to the north of the southern springer has no equivalent adjacent to the north springer,

although the area between has clearly been infilled with darker irregular limestone blocks, possibly suggesting that the butt joint formed the jamb of an arrow loop above the doorway. Historic images of the late-nineteenth and early-twentieth centuries show this area obscured by a pitched roof, sloping from west to east, and possibly projecting beyond the wall face to form a canopy above the doorway, the remodelling possibly relating to its insertion.



Upper east wall of the Prison Tower

Internal Elevations:

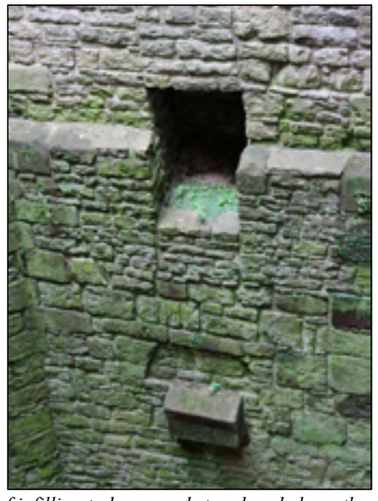
Basement

B1 - The West Tower: the west tower is open from basement level for its full height, and is presently unroofed. However, significant evidence for internal staging within the tower survives, and each level is described within the context of the floor levels observed elsewhere within the King's Gate. The tower is of irregular octagonal plan, with walls of up to 10' (3.05m) thickness. At basement level, the walls are of limestone block construction, with a mixture of sizes, in random rubble construction, but with frequent use of larger sandstone blocks, which also formed stepped quoins to the angled return of each elevation. The north-west wall contained the sole arrow loop within the basement, comprising a plain narrow slit of only 4" (0.10m) width and 3'3" (0.97m) height, and affording a firing line over the moat, but also providing a minimal amount of light into the basement. Both north and south walls retain two-piece sandstone corbels, comprising a square-faced lower piece, with an angled soffit, whilst the upper stone is of rectangular section, but was rotated in the wall face to form an angled springing point, presumably for a brace to the ceiling beam. The northern corbel appears to have been remodelled, set within an aperture that was approximately 6" wider on either side, and infilled with small limestone fillets. Above the corbel, an area of similar width at its base, but with narrowing trapezoidal sides, forms a stone blocked rebate of 3'5" x 1'6" (1.04 x 0.45m). The sides of this aperture appear to have been worked to form the angled jambs, raising the possibility that it may have originally formed a fireplace hood. The large rectangular ceiling beam socket above also appears to have several courses of blocking at its base, with the straight

jambs apparently continuing 21" (0.53m) below the present base of the socket. Both ceiling beams sockets rise significantly above the height of the ground floor offset, suggesting not only the potential use of large-scantling timbers of approximately 8" (0.20m) section were used as floor joists, and that the elongated void for the ceiling beam would have allowed it to have been sintered following the construction of the wall to a greater height. Three sockets at this level in the south-west wall, each of approximately 1 '6" (0.46m) height and 1'10" (0.56m) width are aligned perpendicular to the main ceiling beam, and set only 8 - 12" apart (0.24 - 0.30m), their close spacing suggesting that housed larger- scantling joists carrying something of considerable weight.



Basement level of the west tower of the King's Gate



Detail of infilling to beam socket and corbel, north wall

The west wall has a slightly rebated stone, 3'10" (1.15m) below the offset, which possibly represents an infilled putlog socket, used during the construction of the tower.

Phasing within this level of the tower is complicated by a green lichenous growth over all the stonework. The documentary sources suggest that the first phase of the tower was constructed to only a very low level, which can clearly be seen in the adjacent curtain wall, linking the King's Gate to the Well Tower. Within the internal face of the tower, the level appears slightly higher, and can be identified by the use of dressed sandstone quoins between each elevation in the later stonework above, whereas at the lower level, the smaller limestone blocks are more simply keyed. Within each wall face there is also a predominance of larger dressed sandstone blocks, between one and course below.

The offset, that would have housed the floor joists of the ground floor is present on all eight faces of the tower, and is relatively uniform in its approximate 11" (0.28m) depth, narrowing slightly at each return, and completely diminishing at the junction of the south and south-west walls. In the south-east wall, placed centrally below a doorway in the passage from the main entrance (***G4***), a 12" (0.30m) wide void in the offset has a slate base. The slate probably represents an insertion, forming the base of a drain from the passage above (***G4***), which has a dressed U-shaped channel carved within a sandstone block at its north-western end.



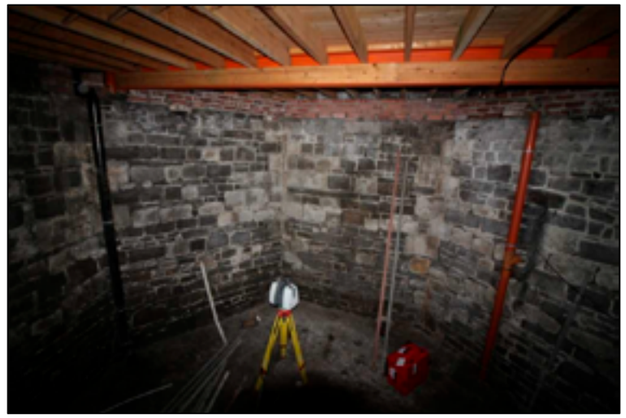
Carved drainage channel above offset in south-east elevation

There is no extant evidence for access into the basement, either externally or internally, this presumably being afforded by a ladder below a trap door at ground-floor level.

B2 - The East Tower: the basement level of the east tower is presently only accessible by removing part of the floor within corridor ***G11***. Given the poor light quality, and difficulty of access, it is envisaged that the detailed recording of the basement of the east tower will be undertaken following the soft strip of existing furnishings.

Limited analysis of the basement, undertaken at the time of the laser scanning, revealed it to be of predominantly limestone block construction; that at the lower level, comprising approximately 1.90m above present rough floor level, being of notably darker limestone

construction, and with a clear constructional break at its head. This almost certainly represents the original phase of construction, with the wall above dating to the turn of the fourteenth century.



Basement level of the east tower of the King's Gate, with clear horizontal construction break

The basement also retains an arrow loop in its north-eastern elevation, and concave quarter-round, fine-grained sandstone corbels for the wall post carrying the basement ceiling beam.

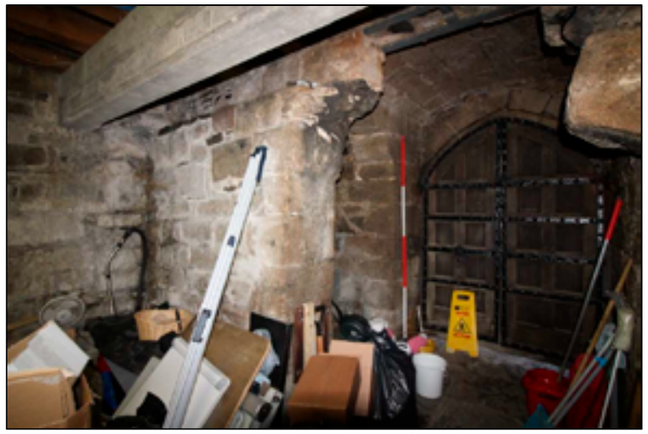


Corbel for wall post

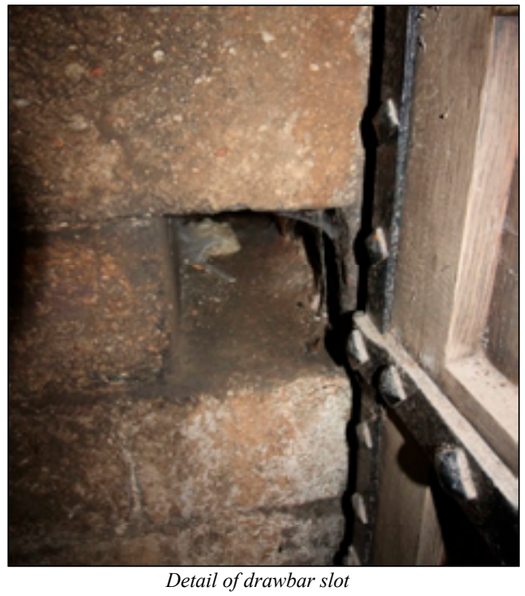
B3 – Entrance Lobby: the lowest level of the Prison Tower is accessed on its western side, from the outer ward, and the inclusion of a stair within (***B5*** was probably intended to provide access directly from the kitchen into the chambers within the gatehouse, and ultimately to the hall intended on its upper floor. It is unclear why its entrance would have required a portcullis, although, this may suggest it was intended as a more defensive access between the upper and lower wards in the original design, but was modified during the construction of the tower above. It is highly improbable that the portcullis had any association with use as a prison.

Its entrance is described externally, but the inner face of the pointed arch is rebated 3¾" (95mm) to house heavy doors. Those present represent modern replicas, most probably inserted prior to the investiture of the Prince of Wales in 1911, but they appear to re-use large rebated pintel sockets either side, demonstrating the earlier use of inwardly-opening double-doors. Opposing 7-8½" (0.18-0.22m) square sockets, 3' (0.91m) above floor level, immediately

behind the rebate of the door, would have housed a drawbar. That on the north side is only 9” (0.24m) deep, housing the closing end of the bar, whilst that to the south is 6’ (1.83m) deep, allowing the bar to be withdrawn within the wall.



Basement entrance into the Prison Tower, from the north-east



Detail of drawbar slot

The south wall of the entrance passage is of well-dressed large coarse-grit sandstone blocks, and has quarter-round ‘shouldered’ corbels carrying a substantial flat lintel above the entrance to the stairwell to the south (***B5***), forming an aperture typical throughout the castle, and known as a ‘Caernarfon Arch’. The north wall is of smaller, more roughly squared limestone blocks,

returning at its eastern end to form the west wall of the main basement room (***B4***). The doorway between the two rooms appears to have always comprised an open archway, although this has decayed badly and been subjected to twentieth-century repair. On its northern side, the lower coarse-grit sandstone concave corbel is relatively well preserved, and has a chamfer on its inner, eastern, face. What appears to have been a similar corbel in the southern jamb, has been roughly cut, almost flush with the wall face, but does retain its chamfer stop on its eastern face. On both sides of the doorway, the coursed above the corbel comprises small fillets, that on the north being 5” (0.13m) high, whilst to the south, a 7” (0.18) thickness of heavily-mortared stones of mixed size and provenance projects beyond the broken corbel below, to the end of a large rectangular coarse-grit sandstone block above. This appears to have formed part of a three-piece flat lintel, the central 2’6” (0.76m) wide member having been lost, and the wall above now carried on two painted steel bars.

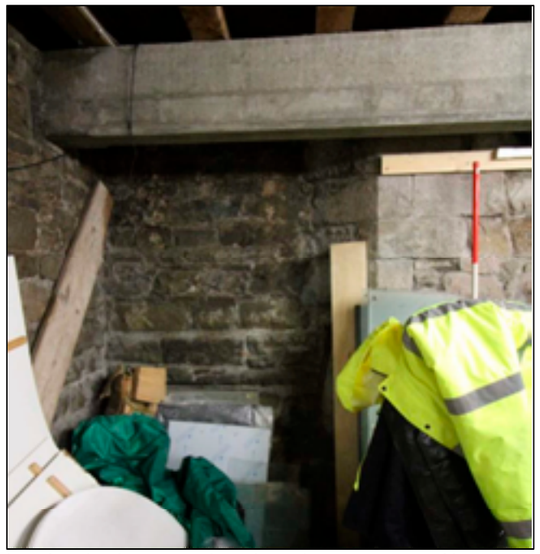


*Barrel-vaulted ceiling, and opening to stairwell (**B5**), with ‘Caernarfon Arch’ door head*

Between the two doorways either side of the entrance lobby, the ceiling is of shallow barrel-vault construction, comprising well-dressed coarse-grit sandstone blocks. The floor is of random stone, laid in heavy cement, and almost certainly of twentieth-century Ministry of Works’ origin behind a two-piece limestone step of approximately 8” height at its eastern end, flush with the western edge of the doorway into the main room of the basement (***B4***). The step is mainly obscured by a timber ramp, allowing trolley access into the caretaker’s room.

B4 - Caretaker's store: the main room of the Prison Tower basement presently serves as a caretaker’s store, comprising a broadly rectangular room of approximately 17 x 21’ (5.18 x 6.41m). It has an angled return in the east wall, creating an alcove of 13” (0.33m) depth for its

northern 4’ (1.22m). The north wall is of small limestone block construction, built to course, with a possible slightly ragged joint in the wall, 9’ (2.74m) from its western side. The upper 2’4” (0.71m) of the wall, below the late-twentieth century timber ceiling has also possibly been rebuilt or represents a secondary phase of construction, comprising more regular coursing of slightly larger blocks.



Chamfered splay into rebated north-east corner of basement

The east wall is of similar construction to the north wall at its keyed return into the rebate. This has an offset, of similar width to the southward continuation of the wall, but of more ragged construction at its base, narrowing by 5” (0.13m), 2’ (0.61m) above floor level, and then by a further 2½” at both 1’ (0.30m) and 3’ (0.91m) higher up the wall. The angled return on its southern side is of rubbed large coarse-grit sandstone blocks, much paler in colour than the wall to the north, as is the remainder of the east wall, which is of mixed limestone and coarse-grit sandstone rough block, built-to-course in its construction. It has a rebate at its upper level, 7’10” (2.39m) above the floor, presumably to carry a wall plate for an earlier ceiling.

Its southern return is obscured behind a 4” (0.10m) diameter cast-iron down pipe, but appears to represent a keyed return, particularly as the south wall is of similar fabric and coursing. At its western end, it has a keyed return to the west wall, which is of more regularly-coursed limestone block and has a rebated offset, presumably for a wall plate, 7’10’ (2.39m) present floor level. To the north of the doorway, the west wall is of darker limestone, similar to the north wall, with which it has a keyed return. This too has a rebate for a wall plate, but set lower, at only 7’4” (2.24m) above floor level.

The extant ceiling is of late-twentieth century date, comprising timber planks laid on 7 x 6” (0.18 x 0.15m) east/west aligned joists, which butt the outer walls. These are carried on three north/south aligned cast-concrete, stop-chamfered beams of 0.40 x 0.30m section. These have

been cut into the north and south wall faces, with the central beam occupying an earlier, wider socket, almost certainly housing a large-scantling timber ceiling beam within the original construction of the basement. That in the north wall has a clear original outline, infilled below the extant beam, which has been placed on a large rough grey coarse-grit sandstone pad below a thin yellowish sandstone fillet. The southern end of the concrete beam includes a 35mm concrete pad, which places the beam onto a two-piece sandstone corbel, which has a concave quarter-round mould at its base, and appears to form an original part of the south wall.



Corbel for earlier timber ceiling beam, south wall

The upper part of the north wall has four 12” (0.30m) wide, 6” (0.15m) high rebates to the planked ceiling, possibly representing joist sockets, but these are not matched in the south wall, where a single 3’ (0.91m) wide, 6” (0.15m) deep rebate towards the western end suggests that the ground floor doorway above was originally slightly lower than its present threshold. The wall plate offset at the southern end of the west wall forms the base of an angled pier across the south-west return at ground floor level above.

The floor is of degraded concrete, probably dating to the early/mid-twentieth century, and has a central drain.

B5 - Stairwell: the entrance to the basement (***B3***) also affords access to a stair to the ground-floor level of the Prison Tower. This has a doorway entrance, but without evidence for any door furniture having been present, below convex quarter-round corbels to a large plain-linteled ‘Caernarfon Arch’. This large stone block is one of very few stones within the King’s Gate that has a visible potential mason’s mark, comprising a shallow inscribed double-chevron. Six single and two-piece steps wind gradually to the west into a cylindrical spiral stair tower. The side walls of this angled passage are of limestone and coarse-grit sandstone rubble, with convex quarter-round corbels to stepped, large coarse-grit sandstone blocks, forming the rising tiered ceiling. Although the arrangement suggests a further flight of stairs above, this section of stair forms a mural passage within the Prison Tower, carrying only rubble core above.



*Entrance into stairwell **B5***

The upper three courses of the stair newel, placed at the southern end of the east wall, appears to comprise large triangular coarse-grit sandstones, with the profile of the newel carved into their points. Six winders below do not span the full 33½" (0.85m) diameter of the spiral stair, each comprising two or three members to form a 7 – 9" (0.18 – 0.23m) high step. This appears to form part of the original design, rather than representing extensive repair in similar coarse-grit sandstone. The east wall returns beyond a perpendicular angle, to form the splayed reveal of the ground floor doorway (***G6***) accessed via two further steps, set parallel to the door, which is internally rebated on the stair side, but which is obscured by a fixed batten door.



*Stairwell **B5**, with winding stair with rebate for window on right*

The south wall of the stairwell has a quoined dog-leg above a curved offset which follows the radius of the spiral stair. At its return into the west wall this leads into a window bay, at inter-floor level, and of 3' (0.91m) width above the curving sidewall of the spiral stair. This has a central window in its west face, 14" (0.36m) wide, with symmetrically splayed reveals to a rebate 4" (0.10m) from the external wall face, which although badly worn, appeared to step approximately 2" (0.05m) inward to form a 6" (0.15m) wide window, with steel mesh on its internal face. The ceiling of the window bay comprises large flagstones, set on convex quarter-round corbels, as opposed to the concave corbels to the north. This arrangement continued eastward, to form the ceiling of the upper part of the stair to the ground-floor doorway. On the northern side of the window, the jamb had a convex corbel at its east end, carrying the upper block of the roof of the lower stair, and having a shallow chamfer on its southern face, and being 'halved' within its dressing to tie into the angled wall on the opposite side of the stair.

Ground Floor

G1 - The West Tower: ground floor level is defined within the west tower by an offset in the inner wall thickness, forming an offset of up to 11" (0.28m) thickness, to carry floor joists. The ground floor room spanned the mezzanine first floor level on the south side of the tower, forming a large, tall room of 19'6" (5.95m) height between the offsets. This level of the tower appears to form part of the second phase of construction of the tower, and comprises mainly thin rectangular blocks of pale grey colour, but also with pale brown variation, all presumably of local limestone. Coarse-grit sandstone was also used within the roughly coursed wall faces, with simply-dressed, generally finer sandstone, forming quoins between each elevation, and around all features within the walls.



Ground floor level (above offset) in the west tower

Access was afforded via a dog-legged passage (***G4***), with a 4' (1.22m) wide doorway placed centrally in the south-eastern elevation. This has dressed stepped sandstone quoins, with evidence of rebated door fittings on both jambs within the tower wall face. The doorway has a shallow, pointed-arch lintel of sandstone, but is damaged at threshold level, above a centrally-placed, dressed sandstone U-shaped channel in its centre.

A similarly-constructed doorway in the north-east elevation has putative evidence for a door hinge fitting on its western jamb, where a sandstone quoin has a cut rectangular rebate, but there is presently no access to the doorway for detailed inspection. This aperture forms a lobby to an intra mural passage within the north elevation (***G3***), and also has a step into a low window aperture. The internal lintel of the window comprises a large rectangular sandstone block, carried on two convex quarter-round corbels, which form a short bay to the lower-set external lintel, above an inserted timber frame to two single light windows on the internal faces of parallel 6" (0.15m) wide, straight-sided arrow loops through the 4' (1.22m) thick wall. The northern loop overlooked the entrance and drawbridge, whilst that to the south ran through the projecting east wall of the west tower, with its southern external jamb forming part of the outer portcullis rebate, allowing defenders to fire directly on assailants at the portcullis. At the southern end of the recessed bay, a further arrow loop, of 6" (0.15m) width, incorporated the entire 5" (0.13m) wide rebate for the second portcullis, the closure of which would have

blocked the loop, suggesting that the primary function of the aperture was that of lighting the tower.



*Window bay forming entry into mural passage **G3***

The north internal elevation of the west tower has a central window into the mural passage (***G3***) within the wall thickness to the north. This has slightly splayed reveals, to a narrowed face within the passage, formed of moulded sandstone blocks. The flat lintel and sill are also cut into sandstone blocks that form part of the jamb. However, the somewhat ragged outer edges of the sandstone quoins within the internal face of the tower, possibly suggests that the wall would have originally been plastered.

Above the narrow window, a relatively slender dressed fine grain sandstone corbel, with what appears to be a shallow-curved soffit, projects from the wall face. A sandstone block beneath, is slightly larger than others within the same course, and has a rounded, slightly-projecting face, suggesting that it formed a pad to the corbel above. A large rectangular socket in the wall

above, at second floor level would have housed a ceiling beam, with the corbel footing a wall post supporting its northern end. The socket projected only 7" (0.18m) above the level of the second-floor offset, which was not included within the north wall, but the level of which can clearly be demonstrated by its position in the north-east and north-west walls either side. The socket has been infilled, possibly relatively recently, leaving only a shallow socket of approximately 2-4" (0.05 - 0.10m) depth. It has a two-piece sill, of relatively large sandstone blocks, which form part of several sandstone courses below the offset around the internal face of the tower. A shallow rebate in the north wall, placed to the west of the corbel, possibly represents a further infilled putlog hole.

The north-west wall of the west tower has the projecting ground and second-floor level offsets as the only visible features at this level. The upper is placed above four courses of larger, mainly sandstone block wall facing, as in the north wall, with the sandstone coursing below the offset in the west wall extending slightly lower, to form a band of approximately 4'6" (1.37m) height. The west elevation of the ground floor of the tower is dominated by a large fireplace, of 6' (1.83m) width, and 4'6" (1.37m) height, spanning almost the entire elevation. It has squared, fine-grain sandstone quoin reveals, below a flat sandstone lintel, comprising three joggled elements, although the central keystone has three narrow fillets above, forming a level course below four large sandstone blocks that form the facing of the flue above, which rises through the west wall to the top of the subsequently-raised tower. The sill of the fireplace appears to be faced with six approximately square limestone blocks, that appear to have projected directly above floor level, and were placed one course lower than the threshold of the doorway in the north-east wall (and probably also the original level of that in the south-east wall). A rebate in the wall face above the strengthened face to the flue may represent decay to a coarse-grit sandstone block, or possibly an infilled putlog hole.

The south-western elevation has sandstone coursing below the offset to the same level of that in the north-west wall, with the quoin to the west wall two courses below possibly forming a putlog hole. At the base of the ground-floor level wall, the south-west wall has three angled sockets, which appear to relate to the basement ceiling, and have large limestone blocks forming lintels, carried on limestone block piers.

The south wall, as with the north wall, does not have an offset below ceiling level, and unlike the other walls, has a greater continuation of limestone face-work at this level. It has a heavily weathered projecting corbel, opposite that in the north wall, and comprising a coarse-grit sandstone block, with concave soffit, set on a large coarse-grit sandstone pad, placed flush with the wall face. A socket for the ceiling beam projects one course above second-floor offset level above, and is similarly blocked to that in the north wall, to a depth of between 2 and 4" (0.05 - 0.10m). A large corbel immediately above formed part of a second-floor fireplace, and although the fireplace is almost certainly later in date, it would not have compromised the functionality of the ceiling below. An approximately 2' 4" (0.71m) high, cruciform of orangey-brown coloured, fine-grain sandstone blocks, placed centrally in the south wall, with its base approximately 4' (1.22m) above apparent ground-floor level, possibly represents an infilled arrow loop, included in the second phase of construction, to afford light into the tower from the south, prior to the construction of the Prison Tower.



*Entrance from Passage **G4**, and cruciform of possible sandstone infilling below wall post corbel*

The east wall abutted the entrance passage of the King's Gate, and had arrow loops at either end. It has four courses of fine-grained and coarse-grit sandstone blocks below the upper offset, with a further three courses sandwiching the lintels of the arrow loops, both of which used the quoins of the wall return to form their outer jamb. A gouged hole in the north jamb of the north arrow loop suggests the insertion of bars at some point, although access was not possible for detailed examination. Both arrow loops are 6" (0.15m) wide and 3'6" (1.07m) high and are aligned perpendicularly through the 4' (1.22m) wall thickness. The northern loop was placed 3'(0.91m) to the north of the main gate, whilst the southern one was placed below the ribbed arch to the south.

The east wall also has two curved, shallow S-shaped pattress plates, set 4' (1.22m) apart in the centre of the elevation, and with square nuts to the 1½" (0.03m) diameter bolts. These are probably of late-nineteenth or early-twentieth century date, and it remains unclear where their outer end is secured, presumably behind facing stones within the main entrance (***G7***).

G2 - Garderobe Passage: a mural passage on the north side of the west tower has no communication with the King's Gate, being accessed only from within the kitchen to the west. The kitchen floor was presumably higher than present ground level, with the sill of the opening being 2'9" (0.84m) above present ground level, but presumably having a timber or stone step from the kitchen floor in the original layout. A 2' (0.61m) wide doorway, with plain squared jambs below a worn, possibly chamfered, lintel afforded access to the 2'4" (0.71m) wide passageway, with seven steps to a short half landing. The ceiling above the steps was tiered with large coarse-grit sandstone blocks, the walls and steps being predominantly of limestone. A window adjacent to the landing has chamfered facing to the passage, whilst a 2'1" (0.63m) wide arrow loop opposite has plain limestone symmetrically tapering reveals below a chamfered coarse-grit sandstone lintel. The external jamb has a narrow 1¼" (0.03m) wide internal rebate, below a single-piece, stepped lintel that incorporates a moulding mimicking the concave, quarter-round corbels seen elsewhere. The 10" (0.25m) wide aperture, which retains three relatively old wrought-iron horizontal window bars, appears to have been intended to

provide the maximum amount of light to the kitchen, as well as forming a defensive firing position.

Above the landing, the ceiling has squared corbels to stone blocks above, running the length of the east/west aligned section of the passage. A 15 x 11" (0.38 x 0.28m) socket in the south wall, adjacent to three further steps, is 8" (0.20m) deep, and appears to represent a keeping hole, whilst a wider 18 x 15" (0.45 x 0.38m) aperture above, forms a void of full wall thickness, but may have had facing stones removed within the passage. To the east of the steps, the passage maintains a similar level, with a silted random stone floor. A narrower 10" (0.25m) wide aperture at the east end of the kitchen range to the south has plain external jambs within the passage, with a plain 5" (0.13m) wide, 3'10" (1.17m) high, straight-sided arrow loop in the opposite face of the passage offering little in the way of light to the kitchen.

A further arrow loop, of similar height and external width has a slight taper from its 9" (0.23m) wide internal face, and is set within the rounded corner of the passage. It has a steeply sloping base, offering good firing coverage of the ditch. The wall on the opposite side of the passage is also curved around the dog-leg, and is rebated by up to 5" (0.13m) above an offset, placed 2'3" (0.69m) above present floor level, and presumably designed to improve manoeuvrability around the arrow loop. At the curved dog-leg in the passage, the ceiling corbels change to convex quarter-round corbels, with a step up in the ceiling to a height of 6'6" (1.98m) at its eastern end, being carried on a pair of tiered quarter-round corbels to the east end of the passage.



*Garderobe passage **G2**, showing curved wall around west tower*

The eastern 11'4" (3.45m) of the south wall of the passage is also rebated by 8" (0.20m) above an offset of similar height, again improving access to four floor-level arrow loops in the north wall. The western of these primarily served as a window to the passage, but was also angled to overlook the curtain wall to the west. The base of the west reveal is vertical, forming a stop to a deep chamfer, 2'4" (0.71m) above the extant passage floor. The aperture is of 2' (0.61m) width and of 6'2" (1.88m) height, with tapering reveals to a narrow 1¼" (0.03m) rebate to a 10" (0.25m) wide external aperture. The dropped external lintel is heavily worn, but appears to have ogee moulding to a pointed arch. The base of the loop steps down approximately 10" (0.25m) over a coarse-grit sandstone step, improving the firing angle into the ditch.

A further floor-level arrow loop, placed 5'6" (1.68m) to the east is of simpler design, with plain reveals to a straight-sided 6" (0.15m) wide shaft, rising 4'10" (1.47m) above passage floor level. It has a sloping base overlooking the ditch, and a heavily-worn external lintel, the moulding of which is unclear, due to heavy weathering.

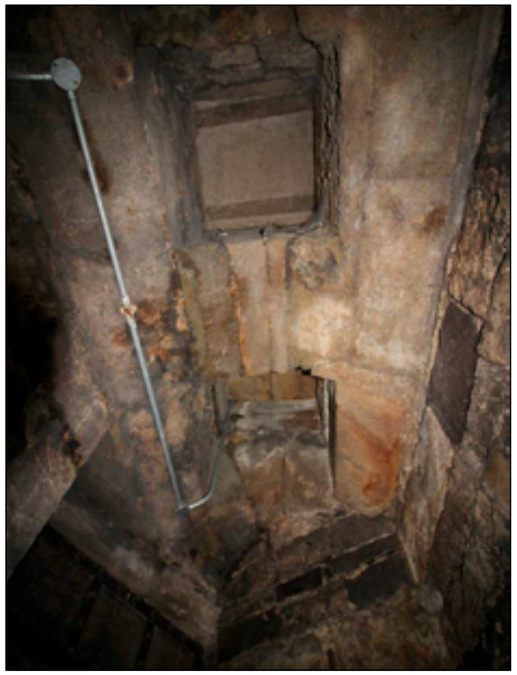
Between the two floor-level openings, a 2'7" (0.79m) high, plain 6" (0.15m) wide arrow loop was placed immediately below the ceiling corbels, a further ceiling level aperture of similar width was angled through the north-east corner of the passage, and is of 3'6" (1.07m) height, with a dropped external lintel. This afforded light to the 2'7" (0.79m) wide garderobe placed in a slight angle within the north-east corner of the passage. This has quoined returns on its south side, above an 8" (0.20m) high step, and with a concave, quarter-round corbel on the southern side of its 13" (0.33m) deep rebate into the east wall.

G3 - Mural Passage: (presently no access)

G4 - Passage: ground-floor level access into the west tower was afforded through an 8' (2.44m) long tapering passage, of 4' (1.22m) width at its doorway into the tower, narrowing to 3'4" (1.02m) at the dog-legged return towards its southern end, and with a 2'7" (0.79m) wide doorway from the entrance gateway (***G7***). It is of relatively large rectangular block construction, built to course and using a combination of both limestone and coarse-grit sandstone, with additional sandstone mouldings. It has a pointed vaulted ceiling, aligned along the length of the passage, and entirely of coarse-grit sandstone construction. Its lowest course on the eastern side form the spring of the arch, incorporating a 2" (0.05m) angled lip at their base, forming the top of the vertical element of the wall. The blocks forming the arch are all voussoir-shaped, with several having complex cutaways to form the edge of two large square 'meurtrières' or 'murder holes', each approximately 2'² (0.61m) and with vertical sides. The southern example, placed immediately inside the doorway, has a two-piece sandstone flag capping, through which a modern electrical duct passes, whilst the northern murder hole has a concrete cap.



*Doorway into passage to west tower from main entrance **G7**, with 'Caernarfon Arch' lintel*



'Meutrieres' ('MurderHoles') in ceiling of passage

The south wall housed the opened door, and has two large rectangular rebates at its eastern end, of up to 10 x 5" (0.25 x 0.13m) and of 1½" (0.04m) depth, housing large pintels for two strap hinges for the extant timber and iron door, which is of nineteenth-century date. The return of the south wall at its western end incorporates several stones that were dressed to incorporate the change of angle within the passage. The west wall is plain, but does retain one 2½" (0.06m) timber stake, apparently for the attachment of a relatively late fitting, and also traces of copper staining, indicating the position of a pipe, which was used for electrical ducting in the mid-twentieth century, and which is partly extant within the east tower (***G8***). The east wall has significantly more timber chocks (14 were observed *in situ*), up to 5 x 1¼" (0.13 x 0.03m) in size, and with vertical alignments clearly suggesting the insertion of stud walling over the stone wall face in the nineteenth or early-twentieth century. This also continued onto the lower part of the vaulted ceiling on its eastern side, where three further timber chocks are visible. Several pyramid-headed nails and slot-headed screws also project from the east wall, which presently houses a large plastic electrical junction box, with extant galvanised steel and plastic ducting attached to the wall above and below.

The eastern wall contains two arrow loops at its northern end. The larger, northern loop, was placed adjacent to the quoins of the doorway into the tower (***G1***), and has a wide, splayed opening on its inner face, clearly designed to afford maximum light into the passage. However, 4' (1.22m) from its outer face into the main gateway (***G7***), it had a 2" (0.05m) rebate, forming a 5½" (0.14m) wide, 3'10" (1.17m) high arrow loop, aimed at the inner, third portcullis of the outer gatehouse. A second arrow loop, placed only 7" (0.18m) to the south, was much smaller, and presumably entirely defensive in its design, appearing to form a spyhole. It was placed parallel to that to the north, but was of only 3" (0.08m) width, and 1'8" (0.51m) height, placed 4'1" (1.24m) above the extant floor.

The doorway at the northern end of the passage has a vertical mortar scar on its western side. This measures approximately 2" (0.05m) in width, and continues across the vault, and at the top of the east wall, probably marking the position of a door frame. Two drilled holes were also observed in the east jamb, but no large holes for pintels were observed on either jamb, suggesting that the doorway between the passage and the tower (***G1***) was originally an open arch.

The doorway at the southern end of the passage, forming access from the gateway (***G7***) is of 2'7" (0.79m) width, rebated on the western side, again with the rebate moulded into the quoins of the doorway. It was hinged on its southern internal side, and has quarter-round corbels to a flat, fine-grained sandstone lintel, forming a 'Caernarfon Arch', stepped on its internal face within each stone of the two-piece lintel. The threshold is raised above the floor on either side, and whilst the extant two-piece chamfered coarse-grit sandstone step probably represents a repair, the pads to either externally-chamfered door jamb are of similar profile. The step is raised 1' (0.30m) above the extant floor of the gatehouse (***G7***), and steps 2" (0.05m) down for the door rebate on its inner face, where it is 5" (0.13m) above the extant passage floor. A 4 x 2" (0.10 x 0.05m) carved rebate of 2¾" (0.07m) depth in the northern reveal presumably housed a bolt or bar for an earlier door, whilst a 1 x 3 x 6" (0.03 x 0.07 x 0.15m) deep, much more

roughly-formed rebate, mainly within mortar, and placed tight against the rebate, houses the extant closure bar.



Detail of entrance into Passage G4, with sockets in jamb

The extant sandstone flag floor within the passage has been relaid, and is one course higher that that visible below at its northern end. However, stones projecting into the passage from the base of both side-walls at the northern end, suggest that the original floor level was 2" (0.05m) higher than that now present. A probable step at the northern end of the passage into the main chamber of the west tower (***G1***) has been lost, exposing a U-section channelled drain of approximately 7" (0.18m) width, and up to 3" (0.07m) deep. A rebate in the course below has a slate base, presumably forming the base of the continuation of the drain, but it is unclear whether this fed a downpipe on the internal face of the tower. Both features almost certainly represent a late-nineteenth or early-twentieth century repair, it being highly unlikely that drainage from within the gatehouse would have been channelled into the basement of the west tower (***B1***), during its medieval usage. A ceramic circular drain pipe has been cut through the floor on the eastern side of the passage, housing ducting cables from the electrical box on the wall above, and is almost certainly of mid/late-twentieth century date.

G5 - Shop: the room presently used as the gift shop for the castle forms the ground floor of a rectangular tower, known as the Prison Tower, and apparently representing an early addition to the gatehouse above basement level. The room was also at least partly floored at an intermediate stage on its eastern side, where a row of 11 approximately square joist sockets were placed 8' (2.44m) above floor level, on approximately 12" (0.30m) centres. However,

their relatively crude method of construction suggests that they may relate to the reuse of the building as the Custodian's Cottage during the nineteenth and early- twentieth centuries.



General view of shop, with joist sockets below corbels in east wall

The majority of the walls are faced with squared limestone blocks of varying size, built to course, and with smaller stones in the north wall suggesting that it represents an earlier phase of construction, forming part of the earlier west tower of the King's Gate. The north wall, and its western return to a large window in the west wall, are capped with larger coursed sandstone blocks, from approximately 13'9" (4.2m) above floor level, again suggesting phasing within the earlier west tower wall.

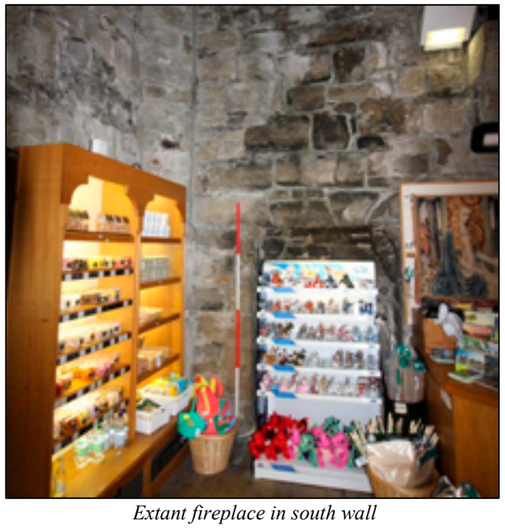


General view of shop, with replaced corbels in north and south walls

In the north-east corner of the room, immediately above the level of the joist sockets in the east wall, a worn/broken dressed sandstone pad projects across the angle of the two walls. The stonework above comprises slightly rebated rubble corework to at least the extant ceiling level, almost certainly representing the rear of a fireplace. At the opposite end of the east wall, the return has a chamfered pier across its return with the south wall, almost certainly representing a rebuild from 6' (1.83m) above floor level, but of possibly continuous build with the main walls below this height. A fireplace, placed 2' (0.61m) to the west, within the south wall, has dressed reveals, with the upper block on either side having worn ogee-moulded corbelling below a flat four-piece lintel. The tapering flue is faced within the fireplace, unlike that at the upper level in the north-east corner.



Detail of rebuilding across north-east corner at ceiling level



Extant fireplace in south wall

The west end of the south wall is similar, with an angled pier across the wall return that appears to form a contemporary build for its full height, and forming a continuation of the pier observed within the basement (***B4***). A 3'(0.91m) wide doorway in the south wall has a flat lintel on the internal face that barely spans the aperture, but has more ornate, deep-chamfered concave quarter-round corbels to a chamfered flat lintel on the external face. The doorway is similarly chamfered to its dressed, fine-grained sandstone external face, and has a square rebate on its eastern side which has several redundant rebates for door bolts. The present door is hung on the splayed eastern reveal, on a large pintel and a floor bolt, but sockets in the wall represent earlier pintel positions, with gouges/rebates presumably forming clearance for door rails or battens.

The east wall provided access from the rear of the gatehouse passage (***G7***) through a wider, 3'6" (1.07m) doorway. This has concave quarter-round corbels forming a shouldered arch below flat lintel stones to the inner 3' (0.91m) of the large 5' (1.52m) wall thickness, butting a 1'1" (0.33m) tall, rectangular lintel at its eastern side, which forms the external lintel, carried on concave quarter-round corbels on its outer face, and with a tapered central chamfer of 11 x 3" (0.28 x 0.07m), forming slight decoration above the doorway. The door aperture is rebated by 3" (0.07m), 1'2" (0.36m) from the outer wall face, with straight sided reveals, the southern side of which houses two pintels in an apparently original position, whilst the north jamb has a drawbar hole, augmented with a cast-iron fitting for the extant door.

The threshold of the doorway has been re-laid on its outer side, comprising a random cobble surface with a central concrete section, flush with the level of the passage, prior to its refurbishment, and almost certainly of mid/late-twentieth century date. A 1'2" (0.36m) wide, 6" (0.15m) deep limestone step on its inner face does not extend the full width of the doorway, suggesting that it also formed part of the reflooring. A 3'11" x 1' x 1½" (1.19 x 0.30 x 0.04m) concrete step, placed on its inner side, within the room, is of more recent date, and sits on a 2'11" x 4" x 4½" (0.89 x 0.10 x 0.11m) concrete block, that rests directly on the north/south aligned timber plank floor.

At its southern side, the timber plank floor butts the doorway in the south wall, being only 5mm lower, but has a concrete step, similar to that of the east doorway, up into the window in the west wall. This has a deep rebate of 6' (1.83m), with rounded sandstone barrel vaulting over squared limestone, perpendicular reveals. These house window seats with dressed sandstone detailing and deep chamfers to the seat, which has late timber planking. The window itself has splayed sandstone reveals and a large flat internal lintel behind concave quarter-round external corbels to a flat lintel, forming a Carnarfon Arch above the window aperture. The window has a late timber frame and is glazed and leaded behind a rebate for a portcullis, which served the basement doorway immediately below.

The ceiling is of apparent early-twentieth century date, comprising painted plaster over eight large-scantling 8"² (0.20m) east/west aligned timber joists. These are butt-jointed above a large, centrally-placed large-scantling ceiling beam, which is housed in what appear to be original sockets within both walls. A vertical wall post, and slightly curved angle brace below each, is carried on a large quarter-round, roughly tooled corbel, probably of limestone, set within each wall, and probably representing a replacement of contemporary date to the ceiling timbers,

which appears to be of early-twentieth century date. These pads project beyond smaller concave quarter-round corbels, the southern of which appears to be a contemporary replacement, whilst that set within the north wall is more heavily worn, and of coarse-grit sandstone, probably representing an original feature. At their outer ends, the ceiling joists are carried on a north/south aligned wall plate, of similar scantling, both carried on large plain rectangular corbels. There are seven in the west wall, but only six in the east, which has an additional wall plate at its north end, tenoned into the main wall plate, and angled across the probable removed flue in the north-east corner, to carry the northern ceiling joist. At its northern end, it is socketed into the north wall.

A probable cast-iron drain pipe passes through the ceiling in the north-west corner of the room, and is mainly masked by the wall plate, that is cut around it, and immediately below which, the pipe has a right-angle joint into the west wall.

G6 - Prison Tower Entrance and Stairwell: this room provides the sole extant internal access to the upper levels of the west tower, and has entrances from the present shop (***G5***) and externally from the upper ward, within what was intended to be a heavily fortified passage on the southern side of the Prison Tower. Internally, the walls are almost exclusively of limestone block construction, comprising a multitude of sizes, all roughly dressed, and built to course. The room is divided into two bays by a central north/south aligned, two-centred arch, which carries the junction of two north/south aligned, pointed vaulted ceilings to either side.



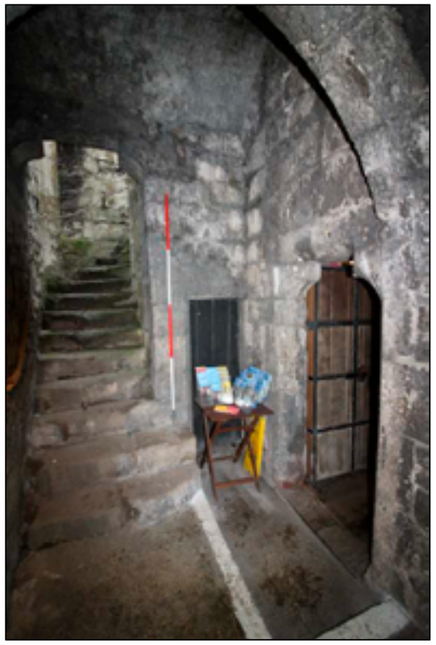
General view of Prison Tower entrance to stairwell, looking east

The east wall is devoid of features, with the exception of a 6½" (0.17m) square, 11" (0.28m) deep drawbar socket adjacent to the reveal of the door in the south wall. The upper pintel of the extant door is set within mortar in the east wall, whilst the lower extant pintel is set into the concrete floor. The doorway itself has a large 4" (0.10m) rebate on its internal face, the arch of which is formed by moulded rebates in the stones forming its pointed outer face. The western jamb is similarly rebated, and similarly has pintels set into wall and floor. It has a smaller 8" (0.20m) wide, 4" (0.10m) high, and only 4" (0.10m) deep drawbar socket, demonstrating that the door was not secured with a single bar, as within the basement (***B3***). Two smaller 2" (0.05m) square sockets in the wall face below also presumably relate to door fixings.

The south wall has a quoined return to the door embrasure, and retains elements of several layers of paint, not typically seen elsewhere, reflecting its use as the Custodian's Cottage for much of its later history. This paint masks the springing point of the central arch, which appears to comprise separate stones, with concave curving soffits, set into the wall face, although it cannot be presently confirmed that the lowest elements of the arch do not form part of the moulding of the blocks forming the south wall itself. A 1'4" (0.41m) wide window to the west, is somewhat defensive in its narrow design, with asymmetric splayed reveals, but less so than the deep, narrow arrow loops of the main gatehouse. It has a 2" (0.05m) rebate, placed 1'4" (0.41m) from the inner wall face of the 2' (0.61m) thick wall, with the outer face narrowing to only 7" (0.18m) wide aperture beyond the rebate. The window has a Perspex internal cover, screwed into mortar beds, with a plywood shelf within its sill. The south wall continues westward, forming the southern side of the stair to the upper floor of the Prison Tower and King's Gate.

The western side of the vaulted ceiling is carried on a lintel forming an arched entrance into the stairwell. This has a stepped and dressed quoined return into the angled elevation across the south-west corner of the tower.

The north wall includes the springing point for the perpendicular vaulting at its midpoint, immediately adjacent to an entrance into the main ground-floor room of the Prison Tower (***G5***). This has deep chamfering to the dressed limestone quoins, the concave quarter-round corbels to the deep-chamfered lintel retaining fragments of brown paint, almost certainly dating from the structure's use as the Custodian's Cottage until the early-twentieth century. The 3' (0.91m) wide doorway has a stop-chamfer on its eastern jamb, to the flat threshold step, whilst the east jamb has chamfered red sandstone at its base, almost certainly representing an historic repair.



*Prison Tower entrance, looking towards shop (**G5**) and stairs to second floor*

The return at the west end of the north wall incorporates the doorway to the basement stairwell (***B5***), which has a plain deep-chamfered southern jamb, below a flat deep-chamfered lintel. The south jamb also forms the return into the stairwell to the first floor, with the west wall continuing above, with a lintel at ceiling level carried on a pair of concave quarter-round corbels.

The concrete floor has been laid flush with the threshold step of the door in the south wall, with a boxed 4' x 2'3" (1.22 x 0.69m) lower level around the doorway into the shop (***G5***), set 4" 0.10m) lower, and continuing to the doorway in the west wall, where it forms a shallow skim over the threshold step. The lower two steps of the stair to the upper floor project beyond the west wall, and to the chamfer on the jamb of the west wall doorway, to a width of 4'3" (1.30m) beyond the south wall. The lower, two-piece step has a 6" (0.15m) rise, and up to 1'2" (0.36m) tread depth, with its north-eastern corner probably having been cut away to form a curtail step. The upper three-piece step has a much higher 9" (0.23m) rise, with a uniform 13½" (0.34m) tread depth. All of the ground-floor level steps are of coarse-grit sandstone, with three sandstone repairs in the five steps leading up to the spiral stair winders, almost certainly relating to repairs carried out under the direction of Llewelyn Turner in the final years of the nineteenth century.

G7 - Main Entrance: the Kings Gate formed the principal entrance into the castle, and was built as a hugely defensive and imposing structure, overlooking the town. Its northern façade is angled around the two octagonal towers that form the sides of the gatehouse, with the central 10'4" wide entrance recessed 4'3½" (1.31m) from the front edge of the tower. Here it is faced with a tall outer arch of depressed two-centred form, which rises to second-floor level and is of four orders. The outer three are wave moulded and die into the splayed faces of the towers, whilst the inner is sunk-chamfered and springs from the threshold of the entrance. This is placed immediately outside the first of three portcullises within the main body of the gatehouse, which more having been planned and partly constructed to the south, around the Prison Tower.



Detail of King's Gate entrance arch in northern façade

Immediately inside the 5" wide portcullis chase are the bearing sockets for the drawbridge, the pit of which is concealed within a chamber. On the southern side of the passage, part of the timber rail is preserved within the wall face. The entrance beyond the drawbridge has a plain two-centred arch into a barrel-vaulted passage. To the outer side of the doorway, are two reinforcing arches, sunk chamfered with ball-stops. Between the first and the outer arch a second rounded portcullis chase of 5" diameter, rises to first-floor level. Behind the first arch is a pair of 'meurtrières', set either side of the crown of the arch, whilst a single 'meurtrière' behind the second arches in centrally-placed.



Portcullis chases, arrow loops, and covered drawbridge pit, east side of passage



Preserved timber within drawbridge socket, south wall of passage

The doorway comprises two huge double doors, of timber and wrought-iron construction, and apparently of mid-nineteenth century date, set within an arch of the same profile but of five orders internally, the first simply rebated for the leaves, the others sunk-chamfered and dying into the passage walls.

Six similar ribs reinforce the passage vault to the south of the door, each having a single order, with the exception of the fourth, which has three, marking the position of an inner door. Between the third and fourth ribs is the 5" (0.13m) diameter rounded chase for a third portcullis, and between the others rib are further 'meurtrières' ('Murder holes'), alternating between single and paired placement. The vaulted passage terminates at the sixth vault, with the west wall continuing at a diminishing level to form the external wall of the Prison Tower. This wall retains springers for two further ribs, at approximately the same level as those within the

passage, and demonstrating that it had been intended to extend the vaulted passage to the rear of the extant passageway, almost certainly to the angled south-western return of the Prison Tower.

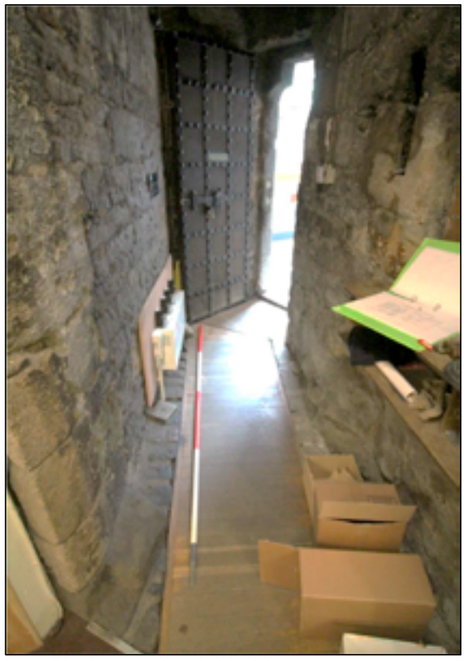


*Vaulting of entrance passage **G7**, with offset 'meurtrieres' ('Murder holes') in ceiling and beyond outer arch*

G8 - Passage: on the eastern side of the main gatehouse entrance (***G7***), a short passage affords access to the east tower (***G9***, ***G10***, and ***G11***), similar to that to the west of the entrance (***G4***). As to the west, it comprised a dog-legged passage, with pointed vault roof, of mixed stone construction, and splaying slightly from 3'4" (1.02m) width at its angle, to 4' (1.22m) at its angled splay into the east tower.

The south wall has a rectangular rebate for the lower door pintel, but the upper pintel is situated within a much smaller socket, infilled with mortar, and without the carved recess seen below and within ***G4***. It has carved quoined fine-grained and coarse-grit sandstone quoins to the shallow return on its eastern side, one sandstone member of which has incised graffiti '*CC RW RS*' in vertical alignment, within a segmental pointed hourglass-shaped outline. The east wall appears devoid of original features, and has moulded stepped capping stones into the vaulted ceiling, as in the east wall of the opposing passage (***G4***). Its lower course is ragged, as is that of the opposing west wall, and with a dressed padstone projecting 8 x 12" (0.20 x 0.30m) into the northern end of the passage on the eastern side, to a height of 7" (0.18m) above the adjacent extant cobbled floor. This strongly suggests that the passage floor was originally 7" (0.18m) higher than that present, representing a slightly different arrangement to the opposing passage (***G4***), comprising a step up from the main gatehouse entrance, rather than a step down. The padstone has a 6" (0.15m) square, 5½" (0.14m) deep cutaway on its northern side, almost

certainly to house a timber door frame, placed against the 5½" (0.14m) wide, deep chamfer at the northern end of the east wall. Two slightly projecting square-section iron bolts, and pollution scars on the vaulting and west jambs, suggest that the door frame was of some antiquity, if not original.



*General view of Passage **G8**, showing threshold of doorway into east tower in foreground*

The west wall has a quoined dog-legged return at its southern end, and a further 21° splay at its northern end to form an entrance with a perpendicular doorway through the south-west elevation of the east tower. One of the sandstone quoins was not only dressed for the door splay at its northern end, but also has an angled splay at its southern end, forming part of the reveal of the northern of two arrow loops, similar to those within the opposite wall in ***G4***, and representing a fine example of the geometric complexity of some of the stonemasonry. The northern arrow loop has a 9½" (0.24m) wide timber and glass modern panel, obscuring the rebate to the narrowed 4'5" (1.35m) long, 5½" (0.14m) wide main shaft of the arrow loop, the internal wall face of which is obscured by mid/late-twentieth century plywood shelving. The adjacent small loop, placed 5½" (0.14m) to the south, is of only 15¾" (0.40m) height and 3" (0.08m) width, and placed 4'3" (1.30m) above apparent original floor level, again differing slightly from that in ***G4***. Below this arrow loop, a 2' x 1'4" (0.61 x 0.41m) irregular, shallow oval cutaway in the wall is up to 5" (0.13m) deep, immediately above original floor level, but is of unclear function.

The vaulted ceiling is aligned with the east wall of the passage, requiring increasingly wider chamfered springers atop the west elevation, again demonstrating the complexity of the stonemasonry. Similarly, the sides of the two 1'8" x 1'11" (0.51 x 0.58m) 'meurtrieres' (Murder holes) within the ceiling are formed with the corners cut within quoins, rather than using butt joints between blocks. The southern example is positioned directly above the doorway at the southern end of the passage, with the second aperture placed 2' (0.61m) to the north.

The southern doorway is similar in style to that in ***G4*** opposite, but with a single-piece chamfered sandstone lintel, rebated on its inner face for an internal raised flat lintel. Both stones are cracked. Quarter-round concave and chamfered corbels below form a doorway of 2'6¾" (0.78m) width, with a 6" (0.15m) doorway thickness to a 3" (0.08m) rebate on its inner face. The chamfered coarse-grit sandstone threshold step is only 2½" (0.06m) above gateway floor level, and has a 2" (0.05m) rebate on its inner face, with the stonework of the adjacent doorway embrasure suggesting that floor level in the entrance to the passage was probably originally lower than in the main part of the passage to the north. The north reveal of the doorway has a narrow, 1" wide, 3" high, and 1½" (0.03 x 0.08 x 0.04m) deep socket adjacent to the rebate for the door, housing the present door bar.

Throughout the passage, the floor comprises granite cobble edging of up to 7" (0.18m) width on both sides, with a central planked floor, rebated to the same height as the cobbling and with timber edging to form a 2'4½" (0.67m) wide walkway, presumably of mid/late-twentieth century date.

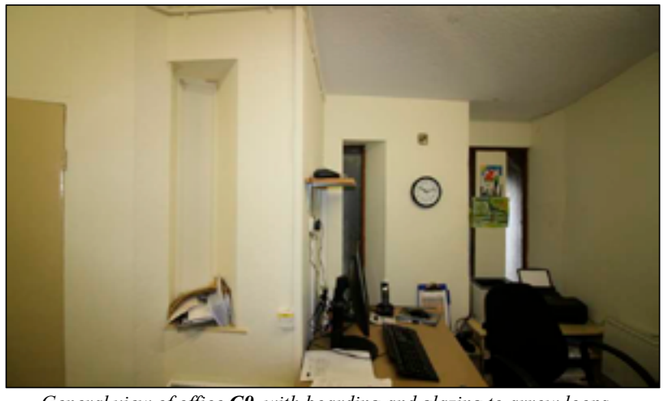
All walls retain current and redundant surface-mounted electrical wiring, comprising copper and rubber sheathing. A rubber wire on the north wall has been gouged into a mortar bed, and partially mortared over, and leads to a large cylindrical junction box in the east wall, carried on steel loop bolts, drilled into the wall face. A further hook projects from the east wall below, and is of twentieth-century date. A large surface-mounted plywood board, at the base of the eat wall carries the electrical boxes and cabling controlling the recently inserted glass door motors. A ceiling light is mounted on a timber pad, whilst an adjacent PIR sensor, and two switches on the west wall are directly surface-mounted.

G9 - Office: the east tower of the King's Gate is heavily partitioned at ground-floor level, this having been undertaken for use by custodial staff. The western part of the tower formed an office at ground floor level, with wall finishes obscuring almost all the historic fabric. The western side of the doorway in the south-west elevation, and its return to the southern arrow loop in the west wall remain exposed, and are of large well-dressed sandstone and limestone block construction, with stepped sandstone quoins around the angle between the two elevations.

In the west wall of the tower, the southern arrow loop has a perpendicular southern jamb, and a splayed northern reveal, with a two-light frosted-glass, timber-framed window placed on the internal face of the rebate into the main shaft of the arrow loop, 8" (0.20m) from the wall face. The 5½" (0.14m) wide loop is placed opposite that within the west tower (***G1***), but on a slightly different alignment, angled further to the south, increasing the coverage from the firing positions.

The remainder of the west wall is boxed within a cupboard, containing the fire alarm panel, key store, and storage shelving, and which is backed with fibre-board, probably of mid-twentieth century date. The northern of the two arrow loops is partly visible behind the shelves, and appears similarly glazed to that to the south, but is presently inaccessible.

The north-west elevation has a nailed fibreboard covering, presumably onto timber stud framing, with an arrow loop at its southern end, apparently mirroring that at the south end of the west wall, but being block with a hardboard sheet. The elevation has a large window rebate, as in the opposing wall face in the west tower (***GI***), with a step in the floor adjacent to its southern jamb, almost certainly denoting the survival of a step up of 7" (0.18m) into the original window bay. A splayed arrow loop on its southern side is similarly boxed to that in the main element of the north-east wall, with its 6" (0.15) width forming part of the second portcullis rebate in its outer face, as with that in the west tower. The narrowed wall thickness at the northern end of the rebate in the north-west wall afforded access to two further arrow loops, of 5½" (0.14m) and 6" (0.15m) width, positioned similarly to those in the west tower, with the southern example forming part of the outer portcullis rebate on its external face. Internally, both were covered with a single frosted window, with a fibre-board mullion formed on its inner face. It is presently unclear whether the fibre-board on the northern jamb of the recessed bay in the north-west corner of the tower conceals an opening into a mural passage, as in the west tower, although the historic mapping would suggest not, again marking a difference between the two towers of the King's Gate.



*General view of office **G9**, with boarding and glazing to arrow loops*

The north wall within the office has plywood sheeting attached to the fibreboard at the lowest 0.80m of the wall, and is otherwise devoid of features, whilst the east wall represents a relatively modern stud and plasterboard insertion. A substantial metal safe in the north-east corner of the room, clearly predates the floor on which it sits, and although externally unbranded, it does retain most of a Victorian coat of arms, transfer printed onto the inside of the door (Plate). The floor comprises late-twentieth century carpet tiles above chipboard sheeting, whilst the plasterboard ceiling has timber joining strips, and is carried on a timber-shuttered 6¼" (0.16m) wide rolled steel joist. A similar joist forms the top rail of the southern stud partition wall, and although socketed into the outer wall of the tower, a similar-scantling

6¼"² (0.16m) I-section steel stanchion, placed against the outer wall, suggests that the beam socket is relatively shallow.

G10 - Staff Room: the larger, eastern room of the ground floor of the east tower has latterly been used as a staff 'break-out' room. The south and east walls were formed with timber stud partitions, and with laminated fibre-board sheeting attached to the north wall, forming a splash-back to a free-standing kitchen. An original arrow loop to the west has been retained for use as a window, with obscured jambs formed of squared, coarse-grit sandstone. This is heavily calcified, but retains evidence for three blocked sockets, presumably for glazing bars, placed between 6" and 8" (0.15 - 0.20m) from the inner face. The window is glazed 2' (0.61m) from the inner wall face, from which point the aperture lintel steps down by approximately 3" (0.08m), to form the rebate for the window frame. The large coarse-grit sandstone inner of two lintels is cracked.

The adjacent wall, forming the north-eastern wall of the octagonal tower, represents one of only two elements of exposed stone wall face within the room, although much detail remains obscured behind tall metal lockers, used by the castle staff. The short section of wall visible appeared to be of coursed, roughly-squared dark limestone block to a height of 0.84m above present floor level, with larger sandstone and coarse-grit sandstone blocks above, with only the occasional use of small limestone and mudstone blocks, all built to course. An irregular central window has a plain coarse-grit sandstone surround, very roughly corbelled on its southern side, but with a vertical northern jamb. The lintel reflects this asymmetrical arrangement, with a rebate of approximately 2" (0.05m) within the embrasure, but stepped down on its outer face, forming the lintel of the window within a mural passage (***G14***).



*Change in wall fabric, partially obscured by worktop and lockers, **G10***

The east wall of the east tower housed a fireplace and doorway at ground floor level, the former being located within the partitioned staff room (***G10***). It had been internally boarded to form a preparation area, with a worktop above cupboards, but appears to have had no extant sill, or extending hearth stone at its base, placed 0.25m above present floor level. It has a coarse-grit sandstone surround, below further exposed coarse-grit sandstone walling, and has a three-piece tapering, keyed lintel. This differed from the joggled lintels of the larger fire-hoods at the upper levels in the west tower, suggesting either a different status or date of construction.



*Obscured loop into mural passage (**G14**), and infilled fireplace*

The timber sheet ceiling (presumably of hardboard), is carried on two slender, shuttered I-section steel beams, the northern of which is carried on a vertical stanchion of similar section at its eastern end, adjacent to the wall. To the north, a further shuttered ceiling beam was placed against the inner wall face, carried on two metal bolts with timber pads, cut into the wall on both the north-eastern and northern wall faces.

The majority of the floor comprises carpet tiles over timber planked flooring, with the northern 1.6m of the room having cushioned vinyl flooring within the 'kitchen' area.

G11 - Corridor: a corridor formed along the south-eastern segment of the east tower at ground-floor level, provided access within the heavily partitioned tower to a mural passage (***G12-14***), and a probable office (***G15***). Its northern wall comprises a modern stud partition, whilst its southern side represents the south and south-east elevations of the east tower.

The south elevation of the tower is predominantly of coursed limestone block construction at this level, with the occasional use of sandstone and coarse-grit sandstone. A 2'4" (0.71m) wide aperture projects 1' (0.30m) above the carpeted timber plank floor, and has timber plank shuttering. It appears to represent a socket for a large ceiling beam, as seen elsewhere within the King's Gate, suggesting that ground-floor level was originally slightly higher than that present, correlating with the evidence from the adjacent passage, ***G8***. At its eastern end, the corridor also has two timber steps up to the doorway into passage ***G12***, the chamfered threshold of which is set 1'7" (0.48m) above present corridor-floor level.



Shuttered beam socket for basement ceiling beam

The south-east elevation is almost entirely obscured by the electrical supply and fuse boards for the entire castle, housed within timber cupboards. The majority of the fittings appear to be of late-twentieth and early-twenty-first century date, although some elements may be of mid-twentieth century date, including the Dexion-style racking that houses the boards.



Fuse array and services within cupboard against south wall

The corridor also has a straight stair on its northern side, affording access to the first floor of the east tower, and representing part of its mid/late-twentieth century refurbishment.

G12 - Passage: a short mural passage, raised above the present floor level of the ground floor, affords access into a further mural passage to the north (***G13*** and ***G14***), and also into a room to the south (***G15***). Its sandstone flagged ceiling is carried on a row of convex quarter-round

corbels. The door at the western end of the passage has a deep chamfered surround on its western face with some incised line graffiti on the southern jamb, below a concave quarter turn door head to a chamfered lintel. The eastern face of the door is rebated, housing a modern frame, which obscures any detail of door fixings. Similar doorways in the north and south walls are faced onto the passage; that in the south wall being more heavily eroded/damaged, and having more of an ogee profile lintel. The flagged floor appears relatively modern. A timber threshold forms a very shallow rise into the mural passage to the north (***G13***), whilst a 7" (0.18m) step affords access to the raised timber flooring within the office to the south (***G15***).

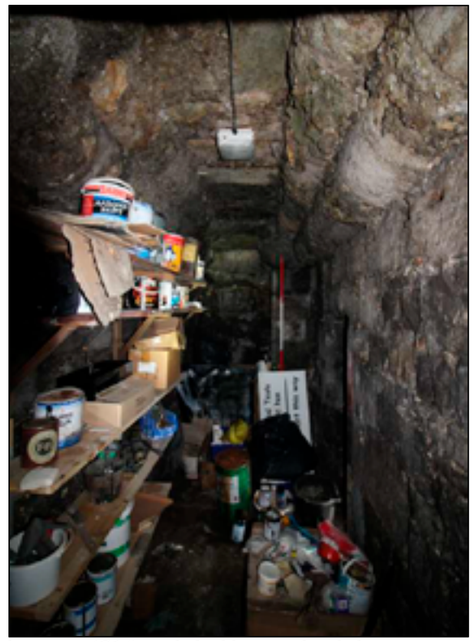
G13 – Mural Passage: this dog-legged mural passage was divided into two rooms in the late-twentieth century, with the insertion of a doorway at the angle within the passage. There are however, slight constructional differences between the two elements, so they are described as two rooms below.

The narrow 3' (0.91m) wide passage is of built-to-course, rectangular block construction, comprising limestone, and fine and coarse-grained sandstone blocks. The door at the southern end of the passage has a squared rebate, with two damaged sockets for a door hinge pintel on the eastern side. The east wall houses a telecommunication box, and has a 12" (0.30m) wide, tapering arrow loop at its angle, presently blocked with a timber board, and having several horizontal incised lines on its northern jamb. The ceiling is of parallel and angled flagstones, carried on convex quarter-round corbels, whilst the floor is of rough stone, with a probable mortar overlay, presumably representing late-nineteenth, or early-twentieth century repair.



*Mural passage (**G13**), looking north*

G14 - Store: this originally formed part of mural passage ***G13***, but was partitioned into a separate store by the insertion of a timber door, placed at the angle of the west wall, butting the narrower-set corbels of the west wall within this northern part of the passage, and the face of a lower row of similar corbels on both sides.



*Mural passage (**G14**), with double row of corbels carrying ceiling*

The west wall has a rounded, westwards turn of 20°, forming the rear of the flue to the fireplace in the east wall of the tower (***G10***), with the passage to the north being 4'5" (1.34m) wide. The ceiling forms a continuation of that in ***G13***, comprising a single flagstone row, but carried on two, tiered convex quarter-round corbels. A 4'8" (1.42m) high, 1' (0.30m) wide aperture in the west wall has plain, squared reveals, and would have provided some light into the tower (***G10***), although it was blocked latterly with plywood sheeting. An arrow loop placed opposite, in the east wall, is relatively wide, and is slightly rebated 15" (0.38m) from the inner wall face, suggesting that it was glazed, although evidence for this is obscured by late Perspex sheeting. It has wide splayed reveals, particularly on the northern side, affording potential firing coverage of the adjacent Granary Tower to the east.

At its northern end, the passage, which has latterly been used as a paint store, with timber shelving installed against the west wall, narrows on its northern side by 1'4" (0.41m), to form a 3' (0.91m) wide 1'6" (0.45m) deep garderobe. This has been infilled with a washbasin and unit, probably of mid-twentieth century date. A stone removed from the north wall above afforded inspection into the extant, approximately 1'3" x 1'8" (0.38 x 0.51m) garderobe chute, which appears open, both above and below ground-floor level.



*Garderobe within **G14***

G15 - Office: a sub-rectangular room, placed in the squared south-eastern corner of the east tower, appears to have formed an office within the original construction. It has a vaulted ceiling, carried on a two-course cornice on its northern side, with quarter-round lower coursed, and with the upper course forming the internal lintel of the doorway into passage ***G12***. To the south, the vaulted ceiling sits directly on the wall head. All walls mainly comprise squared limestone, built to course, with dressed sandstone to openings and forming the back of a fireplace placed across the south-west corner of the room. Almost the entire fire-hood has been removed, although the broken ends of the lintel survive, 1.24m above the present carpeted timber floor. All the stones forming the eastern edge of the fire-hood were dressed to also form part of the wall face, whilst those to the west appear to have been socketed into the substantial rubble core of the west wall. The face of the lower wall within the back of the fireplace has collapsed, with heavily burnt sandstone blocks visible within the exposed wall core. The square flue rises through the vaulting, and is extant through first-floor level. The east wall has a high central window, with parallel splayed reveals, angled towards the Upper Ward, and measuring 2'2" (0.66m) wide on its internal wall face. It is also internally rebated for glazing, although this was obscured by Perspex sheeting. It has a rebated sill that appears to have been repaired with red sandstone. The lower sill appears to relate to an arrow loop placed immediately to the north of the window, which has a chamfered sill from a similar height to that of the window. It was placed across the north-east angle of the room, with the upper east wall being carried over the moulded arrow loop lintel on an offset sandstone pad. The loop is 2'3" (0.69m) tall and 1' (0.30m) wide, and although blocked with a hardboard sheet near its inner face, it continues through the full thickness of the curtain wall, forming part of the western arrow loop in the

curtain wall between the King's Gate and Granary Tower, which also has a loop aligned transversely across the curtain wall. Its position and depth made it impractical as a defensive firing position, but it would have afforded some light from the north into the office, but also given the external appearance of being a functional defensive firing position.



*Removed fireplace and vaulted ceiling within office (**G15**), looking south-west*

First Floor

F1 – West Tower: at first-floor level, the west tower represents a continuation of the ground floor phase of construction, and forms part of a tall ground floor room. The sole feature relating to the mezzanine first floor, is a window in the south-east elevation that would have provided light from the small overlook chamber adjacent to the main gate (***F2***). It is of 2'7½" (0.80m) width and has deep-chamfered jambs, rebated on the inner face within the smaller room (***F2***), and with concave quarter-round corbels to a single-piece, deep-chamfered Caernarfon Arch lintel, which has a moulding for a slender chamfered mullion.



*Window in west tower (**F1**) into gate overlook (**F2**)*

F2 – Gate Overlook: rooms overlooking the entrance passage were placed either side of the gatehouse. That to the west (***F2***), was accessed solely from a stair down from a landing on its western side (***F3***), with an apparent door into the western tower not only misaligning with floor levels within the tower, but also having the clear moulding for a window mullion, demonstrating its original function.

The room is trapezoidal in shape, widening above the lowest step of its access stair (***F3***). The splayed north-west and south-west walls are spanned by a lintel carried on a convex quarter-round corbel on its southern side, and by a steep-sided, straight-chamfered corbel at its junction with the west tower to the north, the corbel also being moulded into the wall profile of the tower. Two convex quarter-round corbels are tiered into the window at the east end of the north-west wall, and are also dressed to align with the west tower, and the dog-legged wall over the door. The east jamb has similar tiered corbels to a large coarse-grit sandstone lintel, with the external lintel stepped in two pieces to the tower façade, where it is carried on concave, quarter-round corbels. The aperture measures, 2'8" (0.81m) wide and 5' (1.52m) high, with very shallow 1½" (0.04m) deep rebates on the internal face. The lintel has a moulding for a chamfered mullion, whilst the worn sill has only the hint of such a feature, but also retains two gouges for flanking vertical window bars.



Corbelling around return of north and east walls, ***F2***

The east wall has three windows, all partly obscured by identical twentieth-century frames of 1'10" (0.56m) width. These appear to be set against shallow rebates below a dropped flat lintel, approximately 4'4" (1.32m) above sill level, which appears similar to the silted random stone floor. The windows all have splayed reveals of differing angles, maximising access into each embrasure, below stepped lintels to that of the inner wall face, carried in each instance on convex quarter-round corbels. The narrower central lintel also appears to have a slight chamfer, although this may just represent deterioration of the stone face.



*Windows overlooking entrance passage (**G7**), within western overlook (**F2**)*

The south wall is of mixed limestone and coarse-grit sandstone, as elsewhere, and has an angled return across to the east wall for its upper 4' (1.22m), with a similar, but shallower-angled pier across the east and north wall.

The pointed arch vaulted ceiling comprises narrow sandstone blocks and is carried on a two-course corbel, only the lower of which has convex quarter-round moulding. The rectangular pattress plate of a tie rod projects through the wall between the vault and the north-west wall.



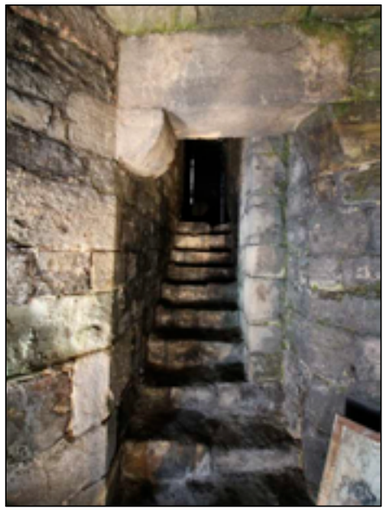
Vaulted ceiling on double corbel, with rectangular iron pattress plate immediately above

The rough random stone floor has two blocked 'meurtrieres' (murder holes) into the ground floor passage below (***G4***). The southern is blocked with two large coarse-grit sandstone blocks, that project up to 5" (0.13m) above the surrounding floor, whilst the northern hole has a flush slate capping, with cement render obscuring its outer edges.



*Blocked 'meurtrieres' (murder holes) in floor of western overlook (**F2**)*

F3 – Stair Passage: the room overlooking the gate is only accessible via a 2'5" (0.74m) wide passage, that leads down from a second-floor landing (***S5***). It is predominantly of limestone block construction, with a sandstone and coarse-grit sandstone quoined rebate of 9½" (0.24m) placed 1' (0.30m) to the west of the arched entrance to the room it serves (***F2***). One of the sandstone quoins has a well-preserved mason's mark, representing a rare example of such a feature within the King's Gate.



*Stairs to overlook **F2** at eastern end of approach passage, **F3***



*Detail of mason's mark north wall, **F3***

The western 9'8" (2.95m) of the passage has a slab ceiling, placed directly on the wall head, at a height of 7'4" (2.24m) above the upper step of a flight of 11 limestone and sandstone, one and two-piece steps, typically with an 8" (0.20m) rise and a 10" (0.25m) tread depth. The ceiling above the stair comprises tiered rectangular blocks, but unlike the upper length of the passage, the four stones are carried on convex quarter-round corbels.

The doorway at the western end of the passage has a modern timber frame and plank and batten door, but the aperture has straight-sided quoins without a rebate below concave quarter-round corbels to a flat lintel, raised 8" (0.20m) above the ceiling of the passage. This is now covered by modern planks above the door, with the doorway almost certainly representing an open passage within the original construction.

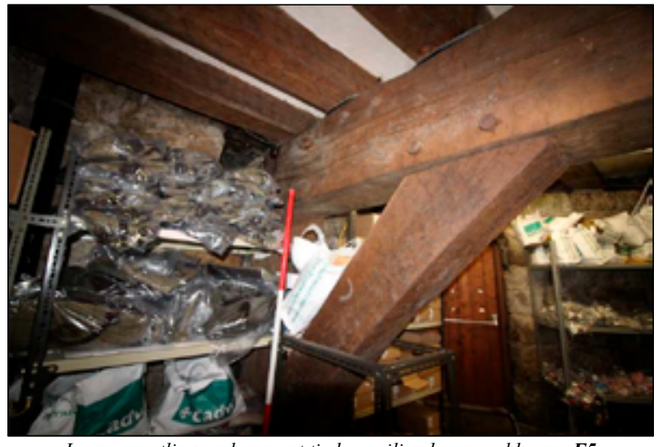
F4 –Stairwell: the stair at the south-west corner of the prison tower affords access to a further staircase that leads to the second floor. At first-floor level it comprises a clockwise spiral stair, of approximately 3'6" (1.07m) radius, within an 8' (2.44m) diameter tower. This is heavily whitewashed, similar to its entrance below (***G6***), but appears to comprise a mixture of coarse-grit sandstone and limestone blocks. The south-west wall has a wide splayed arrow loop, overlooking the intended gate between the upper and lower wards. This is 1'11" (0.58m) wide on its inner face, with splayed limestone reveals to a shallow 1½" (0.04m) wide rebate that forms a 6" (0.15m) wide aperture, serving both defensive and lighting purposes. This has a flat coarse-grit sandstone lintel, without corbels. The lintel forming the inner side of the stair entrance to the east, however, has a concave quarter-round corbel on its southern side, and a possible ogee profile on its northern corbel.



Spiral stair in south-west corner of Prison Tower at first floor level

The 8” (0.20m) diameter stair newel is exclusively of coarse-grit sandstone, and forms the end of each winder step, all between 7” and 9” (0.18 - 23m) thick, and none of which span the full width of the stair, the remainder of each step being made of either coarse-grit sandstone, or more typically, limestone. 11 winders survive with an intact newel, taking the stair above first-floor level, with a further, probably broken, step having presumably represented the upper limit of construction, having its southern edge flush with the north wall of the straight stair from the entrance below.

F5 - Stock Room: the first floor of the west tower was refurbished in the late-twentieth century, with the insertion of a stud partitioned straight stair from the ground floor, and a timber planked floor to form a stock room for the shop. A large-scantling 12 x 18” (0.30 x 0.46m) north/south aligned beam is probably of early-twentieth century date, and re-uses an earlier large socket in the north and south walls of the tower, and retains vertical wall posts and double-pegged braces. The beam carries east/west aligned, roughly cut joists of approximately 8” (0.20m) square section, placed on 2’ (0.61m) centres. These are butt-jointed over the ceiling beam, and are carried on the outer edge by a rebate in all but the north and south wall faces, elements of which have been repaired/rebuilt. The ceiling above is plastered.



*Large-scantling replacement timber ceiling beam and brace, **F5***

The walls below are partially obscured by shelving housing stock for the shop, but appears to mainly comprise relatively large and gritty sandstone blocks above approximately 1.2m above present floor level. Below this, the wall appears to comprise smaller limestone squared blocks, but it is far more heavily obscured.



*General view of stock room, **F5**, showing racking against walls*

The sole feature within the room appears to be a doorway in the south-west corner. This is 0.55m above the present inserted floor level, and affords access to the eastern gate overlook (***F6***). However, the dressed sandstone threshold and flat head of the ogee-corbelled lintel, clearly incorporate mouldings for a central stone mullion within a deep chamfer. The sill also has square sockets for glazing bars, demonstrating that the aperture originally formed a window, rather than a door, providing light into the tower from the eastern gate overlook (***F6***), similar to that in the western tower (***F2***).



*Window in southwest corner of stock room, converted into doorway into overlook **F6***

F6 – Gate Overlook: although the eastern overlook of the main gate appears to form a matching pair with that to the west (***F2***), it is of subtly differing construction, highlighting the slight structural differences between the two towers. Its external west face mirrors that of the western side of the gate, housing similar late frames, but internally has a different alignment of splayed reveals. These are all capped with convex quarter-round corbels, as in the western overlook (***F2***), with that of the north jamb of the north window also having the profile of the reveal at its western end, and apparently returning to form the corbel of the window into the tower in the north-east wall, demonstrating complex dressing of a large block. Above the windows, the north wall is angled in approximate irregular octagonal profile, and does not have corbels to the north/south aligned pointed arch vaulted ceiling. This has piers across either end, at its upper 1'2" (0.35m), keyed into the return walls. The north-east wall houses a 5'7" (1.70m) high, 2'3" (0.69m) wide window, latterly converted to a door, the frame having a similar profile to the concave quarter-round corbels carrying the flat lintel. Both lintel and sill have moulded projections to both faces for a chamfered mullion, but the window is rebated behind its northern, deep-chamfered face, demonstrating this to be the external face of the window. The sill has square sockets of approximately 1½" (0.04m) square, with V-shaped channels also cut adjacent to the southern example. Evidence for three similar sockets in either window jamb

suggests a wrought-iron window grill was attached at some point prior to the insertion of the extant door frame. Its raised lintel within the gate overlook is carried on convex quarter-round corbels, the eastern of which also has a second corbelled face, carrying the lintel of the passage to the east (***F7***) over its splayed northern reveal. The southern side of this doorway is straight-sided from the passage, and has dressed quoins to the angled south-east wall. The quarter-round corbel is also dressed around the dog-legged elevation.



*Eastern gate overlook, **F6***

A modern concrete floor butts the inner sill of the window (now doorway) into the east tower (***F5***), and has two 2'2" (0.66m) and 2'4" (0.71m) square rebates for sandstone flags, capping the 'meurtrieres' (murder holes) into the passage below (***G8***).



*Capping of 'meurtrieres' (murder holes) in overlook floor (**F6**)*

F7 -Mural Stair Passage: access into the eastern gate overlook (***F6***) was afforded via a passage on its eastern side, mirroring the basic layout of the western side of the gate (***F2/F3***). However, the passage was of significantly higher status construction to that to the west (***F3***), being of 3'1½" (0.95m) width, and with convex quarter-round corbels along its entire length. Six corbels carried the tiered ceiling to the open doorway into the overlook, above eight steps to a quarter-turn curtail step of 1'8" (0.51m) external width, rebated inside the jamb, into a straight-sided embrasure of 2'2" (0.66m) width, and 6'11" (2.11m) height to a flat lintel, carried on concave quarter-round corbels, which spanned the differing western extents of the passage wall. At landing level, the ceiling rises to a much greater height than in the west tower (***F3***), measuring 10' (2.54m) above the random, angular stone floor.



*Stair down to gate overlook, **F6** from access passage **F7***

The passage also has windows to either side, unlike that within the west tower (***F3***). Facing into the upper ward at second-floor level, the south window had far less requirement for defensive properties that most other windows. This is reflected in its large 6'11" (2.11m) height, to a flat sandstone lintel, chamfered on its internal wall face inside concave quarter-round corbels. The 2'2½" (0.67m) straight-sided embrasure was rebated to the external face, to an approximately 1'8" (0.51m) wide aperture, presently obscured by a substantial timber frame housing a leaded window. The window is 1'7" (0.48m) above floor level, 1' (0.30m) lower than the shorter 6' (1.83m) tall window in the north wall (which appears to have been infilled above an original corresponding level), affording light into the east tower at second-floor level (***S12***), but presently blocked by a bookcase on the internal wall face within the tower. This window has wider 2'5" (0.74m) wide, straight-sided reveals to a rebate to the tower face. This is obscured behind a glazed timber frame, partially masking large, approximately 5" (0.13m) diameter deep sockets at the base of either reveal. Concave quarter-round corbels carry the chamfered flat lintel.



*Passage **F7***



*Rebuild below window into second floor of east tower, **S12***

A 1'8" (0.56m) wide, 10" (0.25m) high void in the south wall of the passage, 4'4" (1.32m) from the east end of the passage, and 4'2" (1.27m) above floor level, appears to represent the removal of a facing stone within the passage wall, revealing the 1'1" (0.33m) square flue of the ground floor corner fireplace within the office below (***G15***).



*Void into flue from ground floor (**G15**) within passage **F7***

The doorway at the eastern end of the passage is also of higher-quality construction than the corresponding passage entrance in the western tower, having a 3¾" (0.10m) rebate on its inner face, below concave quarter-round corbels to the flat, internally stepped and externally chamfered lintel. The northern corbel has a tall vertical face above the curved moulding, whilst the southern corbel is badly damaged. The present door hinge pintels are set within well-formed sockets within the north jamb of the doorway, with an L-shaped iron closure bar set vertically in a mortar bed. However, larger broken rebates in the southern jamb of approximately 5" (0.13m) diameter, suggest that an earlier door may have been hung on the opposite side, with a cut-out in the north jamb and a 1" x 2" (0.03 x 0.05m) socket in the reveal behind, possibly relating to the closure of this earlier door.



*Doorway into passage **F7**, from corridor **S15***



*Rebates in north jamb of doorway into passage **F7***

Second Floor

S1 – West Tower: the second floor of the west tower represents its upper stage, a hall above having never been completed. It appears to be of more complex, multi-phase construction than the floors below. Its base is defined by an offset to all but the north and south elevations, which would have carried the ceiling joists from the tall ground floor below, and which had a large-scantling ceiling beam spanning between the north and south walls, housed within deep sockets, latterly partially infilled, which rose above offset level, presumably allowing the timber to be inserted following the construction of the walls. In the north and north-west walls, a clear band of limestone blocks, to a height of 3'7" (1.09m) above the offset, appears to represent a continuation of the tower below, whilst above, the walls are more predominantly of coarse-grit sandstone, similar to the chapel to the east (***S10***). This limestone band is less prevalent in the east wall although this may relate to a coarse-grit sandstone surround to a window, which has its internal face within the tower, with a symmetrically-splayed reveal to a plain chamfered, 12" (0.30m) wide face within the chapel (***S10***) elevation. The position and angle of the window would not have afforded a view of the alter within the chapel, suggesting that it predates the link block above the gate.



*Second floor of west tower, **S1**, looking north*



*Second floor of west tower, **S1**, looking east*



*External face of window in west tower **S1**, into chapel, **S10***

The south-east wall comprises a roughly equal mixture of coarse-grit sandstone and limestone, whilst the south wall houses a large fireplace. The south-west wall again has limestone coursing, to 4'3" (1.30m) above the offset, whilst the west wall houses a door and a window. The north-west wall has limestone coursing to the base of a large window bay, which appear to form part of the later Phase 3 improvement of the gatehouse, including the insertion of large Gothic windows into the towers of the King's Gate.

Three corbels at the return of the eastern and southern walls, placed approximately 9' (0.23m) above the offset level of the second floor, suggest that the west tower may have incorporated a relatively low room above the ground floor chamber during the second phase of construction. Each coarse-grit sandstone pad effectively has two projecting faces around the angle of the tower, each forming a corbel of convex quarter-round profile. The window between the corbels within the west wall is of 2'2" (0.66m) width, with symmetrical splayed reveals below concave quarter-round corbels to the fine-grained sandstone lintel. A further coarse-grained sandstone corbel to the north of the window in the east wall, and placed 1'4½" (0.42m) higher up the wall than those apparently carrying an earlier roof, formed a pad for a wall post of a large ceiling beam, that spanned the tower on a east/west alignment at third floor level, and had a 2'2" (0.66m) high, 1'6" (0.45m) wide socket below a large sandstone lintel at the head of the extant elevation. This is matched by a similar aperture in the west wall, the convex corbel for which is laced adjacent to an entrance doorway from the access passage to the south-west. The 3' (0.91m) wide doorway has a quoined southern jamb, and a stop-chamfered northern jamb, below concave quarter-round corbels to the worn, but apparently unchamfered lintel. The 3'6" (1.07m) deep doorway is rebated inside its outer face, adjacent to its access passage (***S4***), demonstrating that it had a closing door, unlike the doorways into the tower at ground-floor level.



*Second floor of west tower, **S1**, looking west*

The doorway in the west wall is flanked on its northern side by a 5’ (1.52m) wide window aperture, which houses a deep, narrow, 4’ (1.22m) wide window bay, with a 2’ (0.61m) high, damaged window seat on its northern side only. The bay terminates with two narrow lancet windows, separated by a moulded stone mullion. This is of relatively high status within the tower, and appears to predate a wider Gothic window in the north-west wall of the tower, which has partially repaired tracery forming trefoil cusps to the upper lights, below a quatrefoil light within the pointed arch above. This narrower 4’ (1.22m) wide window bay retains damaged window seats to either side, each of 1’4” (0.41m) height, and projecting up to 12” (0.30m) into the window bay, making it only 2’ (0.61m) wide at floor level. Although narrower than the adjacent window to the west, and set at the same level within the wall, it is a full 3’ (0.91m) higher to the crown of its pointed arch, matching those of the floor above, whilst the shorter window has a flat slab ceiling to the window bay, carried on tiered, concave quarter-round corbels, typical of the earlier phases of the King’s Gate.

A window above the doorway appears to have formed a large light into the room, similar to that within the Eagle Tower to the west. Steps within its embrasure appear to have been inserted. The window at its outer face has mouldings within the fine-grained sandstone lintel and sill for a chamfered mullion having been present originally.



*Window and ceiling beam socket in west wall, **S1***

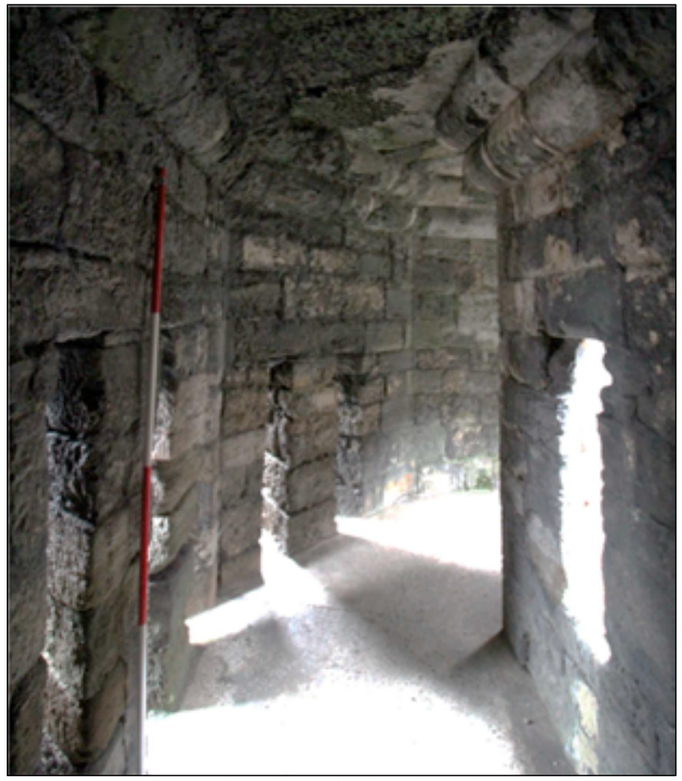
The north wall of the west tower has an arrow loop towards its eastern end, with a similar, but angled aperture in the north-east wall. Both appear to have been placed to afford light into the tower from a mural passage to the north (***S2***), which is accessed through a doorway in the north-east wall, not opposite that in the west wall, and almost certainly originally only serving the mural passage, before being remodelled to also form the entrance into the chapel (***S10***) above the gate. The doorway is of 4’ (1.22m) width, rebated to house a door on the external side of its inner face, which is deeply-chamfered to its jambs, convex quarter-round corbels, and narrow lintel.

The south wall of the tower houses a large fireplace, which appears to represent part of the final extant phase of construction within the main body of the west tower. It was clearly of high status, having deeply chamfered cheeks, which curved forwards in their upper courses to carry a three-piece joggled lintel of fine-grained sandstone. The fire hood projects from the wall and comprises seven diminishing courses of dressed sandstone block, to a height of 6’6” (1.98m), terminating 4’ (1.22m) below the line of an upper offset that carried the ceiling joists for the extended second floor around all but the north and south elevations of the tower.



Fireplace in south wall of west tower at second floor level

S2 – Mural Passage: within the wall thickness of the north and north-east walls of the west tower, is a wide mural passage. It widens from a 2'10" (0.86m) opening into the chapel entrance at its southern end to a maximum width of 5' (1.53m), and is predominantly of limestone construction. It is noteworthy that the extant concrete floor within the passage is set one course higher (6" (0.15m)) than that within the corresponding passage around the northern side of the eastern tower (***S13***). Its great width may relate to the number of archers that it could accommodate, with six arrow loops in the north and north-east external walls forming a major part of the King's Gate defences, or may possibly simply represent its higher status than other mural passages within the gatehouse. Two 8" (0.20m) wide 4'4" (1.32m) high arrow loops in the north-east wall were angled to a single external aperture, extending lower in the outer wall face, overlooking the position of the drawbridge. They are separated by a 1'6" (0.46m) wide, 2' (0.61m) deep triangular pier, with two narrower 1'5" x 1'9" (0.43 x 0.53m) triangular pier in the north wall dividing the angle of three 7" (0.18m) wide 5'3" (1.60m) high arrow loops with flat bases. 1'8" (0.51m) from the west end of the wall, a similar-sized loop overlooks the ditch to the west.



*Arrow loops and window in dog-legged mural passage **S2***

The inner north-east wall has an angled 11" (0.28m) wide 3'6" (1.07m) high window, placed 1'11" (0.58m) above the late concrete floor, faced externally with a chamfered lintel, with a similarly dressed 10" (0.25m) wide 3'3½" (1.00m) high straight window placed at a similar level in the north wall. This has a 1½" (0.04m) rebate to splayed reveals on its inner face within the tower, with a short stub of 1" (0.03m) diameter, square-section iron bar projecting from the eastern reveal.

The west wall of the passage forms a partition to a garderobe (***S3***), with a plain 1'8½" (0.52m) wide doorway of 6' 9" (2.06m) height having concave quarter-round corbels and is rebated 4" (0.10m) from its quoins return into the south wall. The large slab ceiling, 9' (2.74m) above floor level is carried on two rows of convex quarter-round corbels.



*Entrance into garderobe **S3**, within mural passage **S2***

S3 – Garderobe Chamber: at the western end of the mural passage, a door formed the entrance into a private garderobe. This differs from the majority of the garderobes, which were simply placed at the end of such passages, suggesting a higher status for this particular example. It has a 1'8" (0.51m) wide, 3' (0.91m) high splayed window in its north wall, with 1½" (0.04m) rebates to a 6" (0.15m) opening on its external face, providing reasonable light into the chamber. It has a chamfered lintel and west jamb, which forms the north-east wall of the 2'9" wide, 6'2" high, and 2'3" (0.84 x 1.88 x 0.69m) deep garderobe rebate within the north-west angle of the passage. It has a repaired 1'3" (0.38m) high base, with a 1'7" (0.48m) square flagstone capping to the garderobe chute.



*Garderobe chamber **S3**, in mural passage (**S2**) on north side of west tower*

The slab ceiling is lower than the passage, at 8' (2.44m) above the continuation of the concrete floor from the passage, and is carried on a single row of convex quarter-round corbels.

S4 – Entrance to west tower: the entrance into the west tower forms a distinct element from the passage to the south (***S5***). It comprises a 4'9" (1.45m) length of 3' (0.91m) wide passage, stepped lower at ceiling level that the landing to the south, at a height of 9'6" (2.90m) above the limestone rubble floor, and carried on convex quarter-round corbels. At its northern end, it has a 1'4" (0.41m) wide, 3'2" (0.97m) high window, angled slightly across into the west wall, with a worn sill projecting across the angle of the two elevations. 4" (0.10m) from its inner face, it has a 1½" (0.04m) wide internal rebate, including a stepped one-piece lintel, presumably to house a shutter to the window that provided light into the passage, tapering gently to an approximately 8" (0.20m) wide external face. The height and narrowness of the aperture precluded its use defensively, but it did have the external appearance of a functioning arrow loop, raising the intimidatory presence of the King's Gate.



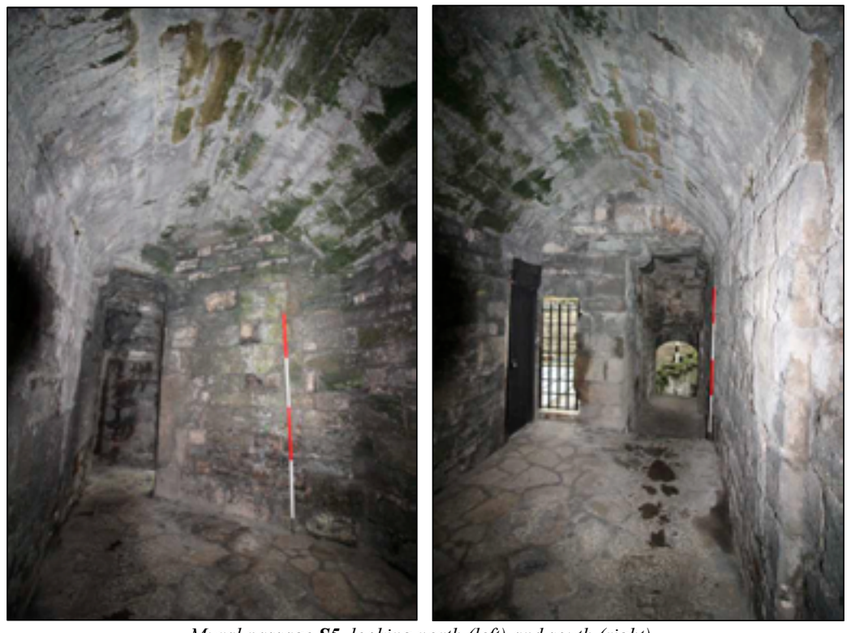
Entrance into west tower at second floor level



*Window at western end of entrance **S4**, with doorway into passage on right*

The east wall of the passage houses the principal entrance into the west tower (***S1***). This has deep stop-chamfered jambs to a 2'4" (0.71m) wide opening, with concave quarter-round corbels to a narrow, two-piece flat lintel 7' (2.13m) above the rubble floor. The 4" x 6" (0.10 x 0.15m) jamb has only a single ¾" (0.02m) diameter tapering hole as the only evidence for door fittings.

S5 – Landing: to the south of the door into the west tower within passage ***S4***, the passage widens to form an 8'8" wide landing. The angled north-wall forms the south-west wall of the octagonal tower, and has dressed coarse-grit sandstone quoins spanning its southward return to for the east wall. This has a doorway to the mural stair leading to the first-floor overlook of the entrance gate, with its southern end forming the east jamb of a further doorway into the Prison Tower at second floor level. Both doorways have plain surrounds and flat lintels.



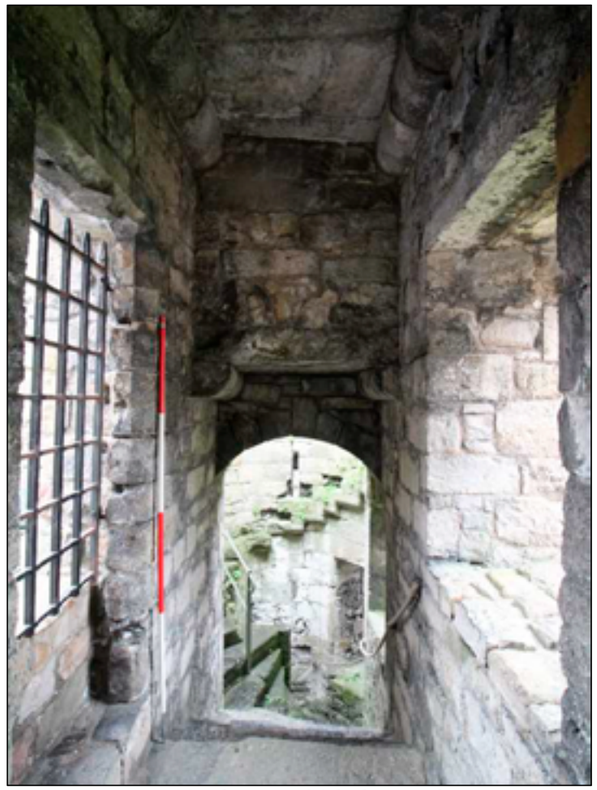
*Mural passage **S5**, looking north (left) and south (right)*

The west wall has a 3" (0.08m) step inwards at the southern end of the tower entry passage (***S4***). This is slightly ragged above 6'6" (1.98m) height, possibly indicative of phasing within the tower, with the wall being predominantly of limestone, as opposed to the greater use of coarse-grit sandstone in other elevations.

The ceiling comprises a simple slightly-pointed vault, without corbels, and is 11'7" (3.53m) high at its northern end, above a sloping floor of large random blocks, which falls to 12' (3.66m) below the level ceiling at the southern edge of the room.

The south wall has a quoined return into a 4'4" (1.32m) wide passage (***S6***), the lower ceiling of which forms a flush face above the 9'8" (2.95m) high aperture between the two rooms that appear to have always had open communication.

S6 – Mural Passage: this represents a 4'4" (1.32m) wide passage from the landing to the north (***S5***) to the stairs to the south (***S7***). It is predominantly of coarse-grit sandstone construction, and comprises an 11'4" ((3.45m) length of passage with steps at either end. Two limestone steps, comprising 9" (0.23m) and 10" (0.25m) risers, lead to the landing to the north (***S5***), with seven 7" (0.18m) to 9" (0.23m) high steps at the southern end affording access to the first-floor stairwell, which has three angled winders below, forming a branch from the spiral stair into the passage. The southern entrance to the passage is framed by a tall segmental arch, of 1'9" (0.53m) thickness, rising 9'4" (2.84m) from its base. This has a short, 2'8½" (0.83m) two-slab flat ceiling on its northern side, carried on convex quarter-round corbels, and behind which, a vertical wall raises the ceiling to a height of 11'4" (3.45m) above the main passage, carried on similar quarter-round corbels.



*Mural passage **S6**, looking south*

Two 6'5" (1.96m) high, 9" (0.23m) wide piers project 3½" (0.09m) from both wall faces of the passage, 4' (1.22m) from the southern end of the landing, and align with a slight narrowing of the eastern corbels from this point southward. There is also a narrow fillet of masonry between flagstones in the ceiling at this interface, strongly suggesting a phasing or construction break. The piers are deeply chamfered on the southern side, and appear to have originally extended a further 11" (0.28m) in height. Two deep 9" x 4" (0.23 x 0.10m) and 7" x 6" (0.18 x 0.15m) sockets at the top and bottom of the rebate of the east pier mark the position of pintels, whilst two 3" x 1½" (0.08 x 0.04m), and 2"² (0.05m²), sockets, both 2½" (0.06m) deep, placed adjacent to the rebate of the western pier, appear to represent bolt sockets. This demonstrates that the position housed a door or more probably a gate, given the apparent lack of a lintel, although this is likely to have been secondary usage, the piers probably intended to form the jambs of a doorway or arch, the construction of which was aborted in the subsequent phase of construction identified within the ceiling.



*Posts, probably representing incomplete doorway piers within mural passage **S6**, looking north*

The west wall has two large windows overlooking the outer ward. The southern is placed below the arch of the entrance, lighting both the passage and the stairs, and is of 3' width, below slender convex quarter-round corbels to a plain flat lintel. The symmetrically splayed reveals have a 1¾" rebate to the external face, which forms a wide 1' x 3'10" opening. Rough rebates at the base of the reveals adjacent to the sill possibly represent a housing for an internal sill, with no evidence for window fittings above.



*Stair window within mural passage **S6**, looking north-west*

The northern window was placed at the top of the steps from the stairwell (***S7***), 2'10" (0.87m) above the large, random coarse-grit sandstone slab floor, and comprises a 3'8" (1.12m) wide, 5'5" (1.65m) high window of sandstone, coarse-grit sandstone and limestone construction, with plain internal reveals and flat lintel. It has slightly splayed reveals to a damaged 2" (0.05m) rebate to its external face, with both lintel and sill retaining the profile for an externally-chamfered mullion, with square-section rebated internal face. The lintel has ferrous staining to two, 1" (0.03m) square-section glazing bar sockets, with corresponding depressions in the heavily eroded coarse-grit sandstone sill. A worn, but probable 4" (0.10m) high rebate in the centre of each jamb, probably housed a transom, with a 2" (0.05m) square socket in the north jamb below suggesting further horizontal window bars, forming a grill.



*Window in west wall of mural passage **S6***

A 2'7" (0.79m) wide window in the east wall, opposite the upper window in the west wall, would have been intended to light the second floor of the Prison Tower (***S9***), had it been completed. The window faces into the passage, unlike those of the west wall, and has been blocked at its base, but retains a moulding for a chamfered mullion in the lintel.



*Remodelled window in east wall of mural passage, **S6***

S7 – Stairwell: the spiral stair from ground and first-floor level within the Prison Tower continued beyond the access to the passage to the west tower (***S4-S6***), affording access to a small chamber at second-floor level within the Prison Tower (***S8***). The octagonal 8' (2.44m) diameter tower has a narrow 4" (0.10m) wide arrow loop in its south wall, which has a large coarse-grit sandstone block placed across the majority of its external face, almost certainly dating to mid-nineteenth century repairs undertaken by Anthony Salvin. The spiral stair within the tower was intended to continue above the first-floor level to which it was built. It has two steps leading to passage ***S8*** to the east, and has the stub of a further step, placed over the entrance into the spiral stair from below. This is placed level with a broken convex quarter-round corbel that was dressed for the profile of the south-east and south elevations. Four further quarter-round corbels project from the south and south-west walls, into to carry the stair once extended, with a vertical three-block corbel across the junction with the south-west and west walls raising the stair around the corner to the west wall, where three further corbels form the upper limit of the built staircase shell. The upper of these spans to the north wall, demonstrating that the stair continued, but nothing is visible above the tall arch into the passage to the north (***S6***).

A short pier across the angle of the top of the west and north-east wall has a convex quarter-round corbel dressed within a coarse-grit sandstone that retains the two wall profiles at it margins, whilst the top of the east and south-east walls is capped with a single convex quarter-round corbel.



*Spiral stair **S7**, looking southeast*

S8 -Mural Stair Passage: a further short stair led from the spiral staircase (***S7***), comprising two steps angled behind the newel of the spiral stair, and the lower of which appears to have lost its south-western piece. These appear to butt the face of the limestone threshold of a 2'8" (0.81m) wide, 8'9" (2.67m) tall doorway into a passage overlooking the entrance between inner and outer wards. The flat lintel and ceiling of the 4'2" (1.27m) east/west aligned passage is carried on convex quarter-round corbels above a further three limestone steps, of 7-9" (0.18-0.23m) rise. A keyed right-angle in the passage forms a short 3'3" (0.99m) wide, 6'6" (1.98m) long passage to a full-height window at its southern end. This appears to have been intended to look above the single-storey gate between wards below, towards the Chamberlain Tower, and is rebated ¾" (0.02m) to an externally chamfered surround and concave quarter-round corbels. The slab ceiling of the 8'7" (2.62m) high passage is carried on convex quarter-round corbels above a squared block at the southern end, forming a stepped inner lintel to the window. The window has a single ¾" (0.02m) diameter hole in its east jamb, possibly suggesting that it was never glazed or barred, but retains three ⅜" (0.02m) diameter slender pintels in the reveal to the north, with the drill hole for a fourth present on the upper east side, all presumably hanging a safety iron grill at one time, or possibly shutters when the structure formed part of the Custodian's Cottage, the walls also retaining traces of whitewash/paint.



*Mural passage **S8**, looking south towards Chamberlain's Tower*

S9 -Prison Tower Roof Level: at second floor level, the Prison Tower is capped by the roof of the present shop (***G5***). This represents an unfinished part of the castle, with the Prison Tower almost certainly intended to form the access to the large Constable's Hall (***T1***), planned for the top of the King's Gate. The north wall, and its angled returns to the east are predominantly of coarse-grit sandstone construction, as with the west tower to the north, with moulded quoins forming each shallow return. At its western end, the north wall has a 2'8" (0.81m) wide doorway into a landing area (***S5***). This has a flat lintel and perpendicular reveals, the western of which forms a continuation of the west wall. It has a 4" (0.10m) rebate inside its northern face, which has a similarly-rebated lintel height, carved within the same stone as the inner face. No evidence for alternative pintel placements survive within the west jamb, which is heavily worn. The extant bar closure is placed between mortar beds, with again, no evidence for an earlier feature. The stubs of two irons bars within the west jamb suggests that the aperture was barred, prior to the insertion of the present iron lattice door.



*Upper level of Prison Tower **S9**, looking east*

The east wall comprises only a short stub of wall, toothed in preparation for its continuation southwards, and terminating in a limestone and coarse-grit sandstone jamb at its lower end. The opposite jamb of this wide aperture suggests a perpendicular rebate, 2' (0.61m) from the inner face of the wall. That on the eastern side must have been intended to have a significantly wider rebate, as a large springer for a substantial rib vault across the entrance passage, would have block a wider aperture. A vertical joint below the rib suggests that it would have formed the northern jamb of the aperture within the east wall of the Prison Tower (***S9***). The southern end of the east wall appears to form a continuous build with the south wall, which is of large, coursed limestone block construction, and which was never erected to full second floor height. Its eastern end and return have been repaired, and its presumably exposed core upper face has been sealed with concrete, and a removed chimney, above a fireplace in the shop (***G5***), that was utilised when the building was used as the Custodian's Cottage, has been capped with a modern concrete paving slab.

The west wall has a central 3'4" (1.02m) wide aperture with chamfered quoins and concave quarter-round corbels carrying a substantial flat lintel. The embrasure has been blocked to a height of 1'11" (0.58m) internally, with the external sill also having been removed, to apparently create a step from the mural passage (***S6***) at some point. However, the deep-chamfered flat external mullion clearly displays the moulding for a chamfered mullion, demonstrating the 2'7" (0.79m) wide feature to have always been intended as a window. Three roughly square, 2" (0.05m) wide and deep sockets in both jambs also demonstrate the presence of iron bars across the window, prior to the insertion of the present fixed gate, which has L-shaped brackets inserted within mortar beds.

The south wall is plain, but comprises the full 9'9" (2.97m) thickness of the Prison Tower at this level. The wall is of large sandstone block construction, below the upper course, which is of limestone, and forms part of a repair, above a lead flashing. The top of the wall has been sealed with concrete and rounded rubble, probably dating to the early/mid-twentieth century, following the removal of the Custodian's Cottage from within the Prison Tower. The chimney of the cottage, which reused an earlier flue, was also removed, and was capped with a square flagstone.



Upper level of Prison Tower from the top of the King's Gate

S10 – Chapel: a link block above the entrance passage (***G7***), housed a rectangular room, generally referred to as a chapel. This comprises almost exclusively coarse-grit sandstone blocks, and appears to represent a third phase of construction above the main entrance (***G7***). It has a squared 1'9" (0.53m) thick quoined return to the 2'10" (0.86m) wide mural passage on its north-western side (***S2***), with the opposite jamb of a 6'9" (2.06m) wide pointed arched entrance being formed from the angle of the western side of the mural passage (***S2***). Infilling at ceiling level between the quoined arch and the entrance from the west tower was undertaken with stepped limestone blocks.



*Entrance into chapel, **S10**, from mural passage (**S2**) and west tower (**S1**), with earlier tower window*

The north wall houses a central 4' (1.22m) wide, 8'7" (2.62m) tall decorative window, reflecting the status of the room. It comprises a four-light window, with internally rebated mullions butting a continuous transom of similar section, below trefoil cusps to the upper light and a quatrefoil light within the arched window head, similar to that in the north-west elevation of the west tower. Although the sill, transom and mullions appear original, and the two side pieces, central and upper elements of the tracery have the appearance of later repairs, a photograph of late-nineteenth century date clearly shows all the tracery to be missing from within the aperture. This clearly demonstrates that the window was rebuilt during Turner's repair of c 1896, although the ore-heavily worn element appear to have been re-used, although their original position cannot be ascertained with any certainty . Remains of an iron bar project from the west jamb, 5" (0.13m) above sill level, with a probable blocked socket in the opposite jamb representing the position of a bar. The lower lights both house square-section bars against the inner 1½" (0.04m) rebate, both being cut into the mullion and reveals. Immediately above the springing blocks for the window arch, a row of four 2" (0.05m) deep wall sockets would have housed timbers relating to the framing of the second portcullis, which was placed against the face of the north wall, and which would have obscured the window when open. Two similar sockets, placed either side of the window at floor level, would also have been associated with the portcullis winch, and 5½" (0.14m) wide, 4" (0.10m) deep rounded vertical rebates, built to a height of 9'3" (2.82m) above floor levels in the wall returns to either end of the north wall, almost certainly housed the upper bar of the portcullis winch. A 7½" (0.19m) wide timber plank laid against the window sill, presently infills the portcullis void against the north wall.



*Chapel, **S10**, looking north*



Detail of chapel window, with portcullis chase and sockets for winch beam

The west wall has an offset at its upper level, presumably carrying a wall plate for rafters to a shallow pitched roof that rose to the height of a 6' (1.83m) wide, double-ribbed shallow two-centred arch that spanned the chapel 7'6" (2.29m) from its northern side. This is also of coarse-grit sandstone construction, deeply chamfered to all faces, and with flagstones forming the ceiling between the two ribs.

Below the arch, and to the south, the west wall contains a higher proportion of limestone blocks, where it formed the east wall of the west tower. This has a central window from the west tower (See S1 above). At its southern end, the west wall has coarse-grit sandstone quoins to a 2'6½" (0.78m) deep, 5'4½" (1.64m) wide alcove, with three-tiered convex quarter round corbels to a wide flat lintel that has a central 5" (0.13m) wide, 4" (0.10m) deep, rounded rebate for a further portcullis, placed against the south wall of the chapel. This channel continues to a large chamfered corbel, the upper edge of which is flush with the top of the south wall, and the northern side of which projects above the rebate at the top of the west wall, presumably to the height of the wall plate. The alcove, which is of limestone block construction apart from the coarse-grit sandstone dressings, appears to have formed narrow access around the portcullis, the void for which has a lead capping across the floor.

The dressed blocks forming the return of the south wall from the west wall incorporate the profile of the portcullis channel into their western ends, representing a complex level of stone-masonry. This wall is almost exclusively of coarse-grit sandstone construction, but with some sandstone dressings and occasional use of limestone blocks. At the lowest 10'8" (3.25m) its western end forms a quoined jamb for an entrance into a narrow chamber to the south (***S11***), with convex quarter-round corbels to a flat lintel at its head. A shorter, 2' (0.61m) wide, 6'6" (1.98m) tall aperture, 6' (1.83m) to the east, has deep-chamfered quoins and concave quarter-round corbels to a similarly-chamfered flat lintel. It is rebated on its southern side, where a door was presumably fixed, although the feature could not have functioned with the portcullis raised. This has a similar 5" (0.13m) wide 4" (0.10m) deep rounded channel at the junction with the east wall, rising from floor level, and again terminating in a chamfered corbel, although this retains an additional coarse-grit sandstone above, continuing the angled ceiling above the level of the south wall. A tiered two-piece convex quarter-round corbel projects from the centre of the south wall, and presumably housed a relatively large-scantling ceiling beam, the opposite end of which would have rested on the arch spanning the chapel at its midpoint. No such corbel exists in the north wall, which is built higher than the south wall, suggesting a different roof arrangement at this end of the chapel. An approximately 3'4" (1.02m) wide, 2'2" (0.66m) tall rebate at the base of the south wall, is up to 4" (0.10m) deep, above the lead capping of the portcullis, and is possibly related to its framing.

The east wall is predominantly of coursed coarse-grit sandstone blocks, and has a central 2' (0.61m) wide, 3' (0.91m) high niche. This has stop-chamfered jambs, and a trefoil cusped two-piece arched lintel. The heavily-worn two-piece sandstone sill has an approximately 7" (0.18m) diameter, 2½" (0.06m) deep shallow bowl carved into each stone, both with a ½" diameter central drain. The accepted interpretation of this feature is as a double 'piscina' within the chapel, although it may possibly merely represent an ornate handbasin.



*Probable piscina niche within east wall of chapel, **S10***

At its northern end, the east wall has a shallow-angled return, mirroring that of the west wall, and forming a continuation of a mural passage on the north-eastern side of the east tower (***S13***). However, unlike the west wall, the east wall is not carried across the opening below via a pointed arch, instead having a dog-legged continuation above a large two-piece convex quarter-round sandstone corbel, above a flat sandstone chamfered lintel. The dog-leg is carried on a chamfered flat coarse-grit sandstone corbel, below the northern convex, quarter-round corbel of the transverse arch.

The floor of the chapel has an L-shaped step below a curved step form both mural passages, to a floor level set 1'2" (0.36m) higher. This forms the floor of the northern 10'6" (3.20m) of the chapel, comprising irregular limestone, sandstone, and coarse-grit sandstone fragment set in concrete, and of unclear date. Three 'meurtrière' (murder hole) apertures are sealed with large slates, as are two apertures, 1'2" (0.36m) from the north wall, which presumably related to the portcullis. A seven-piece, fine and coarse-grit sandstone, and limestone step at the southern edge of this floor, appears original, raising floor level by 6¼" (0.16m). This section of floor is of similar construction to that to the north, and is of only 5'8" width. It has a central 'meurtrière' against its southern side, framed by edge-set approximately 4½" (0.11m) wide sandstone blocks, the north-western of which is moulded around the corner of the aperture, which is of approximately 2'3" x 2'5" (0.69 x 0.74m), and again capped with a slate.



'Meurtrieres' (murder holes) in chapel floor

The adjacent 6" (0.15m) high step has two 1½" (0.04m) deep rebates in its face, either side of the 2'10" (0.86m) wide central section. Both are of 3' (0.91m) width, and are extremely unlikely to be a result of imperfect workmanship, most probably representing the approach routes to the altar, which would have been placed on the upper level. The step was up to 1'2" (0.36m) deep, to a further 7" (0.18m) high step to the upper floor. This upper step was again rebated by 1½" (0.04m), but included the whole central area, with outer reveals of 1'3½" (0.39m) on the west side, and 9½" (0.24m) on the east side, adjacent to the piscina in the east wall. The 7' (2.13m) wide upper floor probably housed the altar, but also had two 'meurtrières' within its floor, both capped with slate, and demonstrating the defensive potential of the upper gatehouse if required.

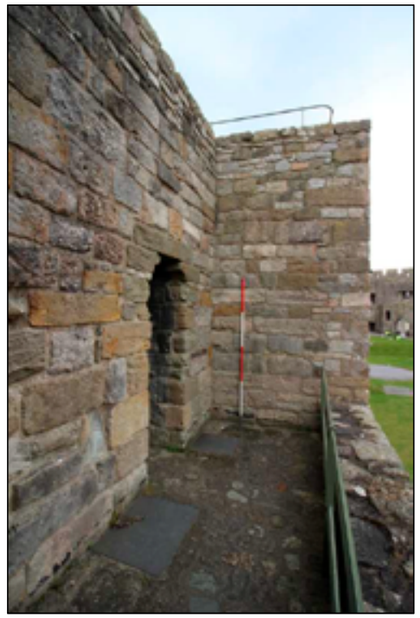


*Chapel, **S10**, looking south, with rebated steps to altar position*

S11 – Chamber: a small rectangular chamber to the south of the chapel (***S10***) is partitioned by a substantial 2'8" (0.81m) thick stone wall. It is accessed via a 2'10" (0.86m) wide, four-step stair of limestone, and fine and coarse-grit sandstone construction at its western side, but also has a probable doorway in its north wall. This comprises a 2'5½" (0.75m) wide opening, with straight reveals to a 2½" (0.06m) rebate behind its northern face. The substantial internal lintel is carried on concave quarter-round corbels, with the outer lintel comprising a single stepped stone. No evidence for a door survives, suggesting that it may have been an open doorway, or slender window, affording light from the upper ward, to the rear of the King's Gate.

The west wall, beyond the quoins of the doorway at its north end, is almost exclusively of granite block construction, built to course, and almost certainly representing mid-nineteenth century remodelling, presumably providing a finished 'room' to the toothed east wall of the main gatehouse passage to the south, which appears aligned with the limestone 'alcove' within the chapel (***S10***). The low south wall also represents a complete insertion above floor level, comprising a greater mix of materials than the west wall, and of similar style to those of the third floor. This wall was not built up in a photograph of 1895, suggesting that it represents part of the significant intervention to the King's Gate, undertaken by Llewelyn Turner from 1896.

The east wall is of mixed coarse-grit sandstone and limestone construction, and is keyed into the north wall. However, offset coursing suggests that it may be of slightly later date. Both the east and north walls have been rebuilt or extended in height at their upper levels, to form parapet safety walls to the third floor.



*Chamber, **S11**, looking east, with 'meurtrières' (murder holes) in floor*

The floor is of random stonework, as with the chapel, but retains two slate-capped 'meurtrières' against the north wall, either side of the door/window aperture, and measuring 1'10" x1'7" (0.56 x 0.48m) to the east, and 1'10" x 2'3" (0.56 x 0.69m) to the west.

The chamber appears to form part of the unfinished King's Gate, built to form a passage or room within the intended southward extension of the gatehouse. Two large springers for rib-vaulting, and a partial return of the south wall, suggest that a relatively high-status addition would have extended the structure by approximately 17' (5.18m) beyond the outer face of chamber ***S11***.

S12 – Education Room: the second-floor level of the east tower comprises a single room, latterly refurbished and roofed to form an 'Education Room'. The walls are partly obscured by furniture, and the windows to passage ***S13*** around the northern side of the tower, have been blocked with timber panels. The walls are generally of coarse-grit sandstone construction, with the occasional use of limestone, with mixed sizes of squared blocks, laid in courses.



*General view of 'Education Room', **S12**, looking north*

Principal access was from the chapel (***S10***), via a shared entrance with mural passage ***S13***, through a 2'8" (0.81m) wide doorway in the north-west elevation of the tower. This is rebated on its external face into the passage, rather than within the tower, where it has chamfered quoins to 1'11½" (0.60m) width, below quarter-round concave corbels to a chamfered sandstone lintel. The present door has been hung on the opposite side to the earlier door, with wrought-iron pintels inserted into mortar beds on the northern splayed reveal, and a wrought-iron clasp inserted into the rebate of the door on the south jamb to house the present drawbar. However, the splayed southern reveal has a large damaged socket for a pintel at its base, measuring 5" (0.13m) depth, within an approximately 4" x 5" (0.10 x 0.13m) aperture, with an almost certainly infilled 1'5" x 4" (0.43 x 0.10m) socket at door-head level. Two further 1" (0.03m) square and 2 x ½" (0.05 x 0.01m) sockets also presumably relate to former door hanging/closure.



*Doorway into 'Education Room, **S12**, with sockets in door rebate*

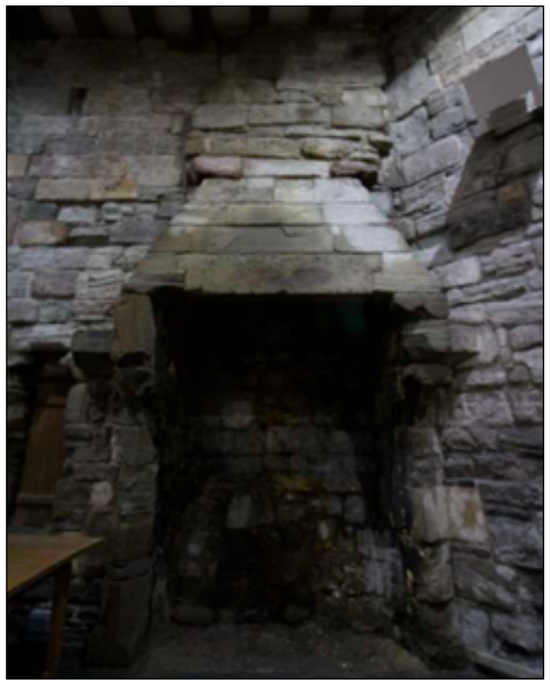
A 2'4" (0.71m) wide window to the north has asymmetrically-splayed reveals, that on the south being a much shallower angle to allow more light into the room. It has worn, concave quarter-round corbels, which are not chamfered like the adjacent doorway, carrying a flat lintel that appears to have had a slight shallow chamfer. The external lintel is stepped down to an internal rebate, against which a timber-plank shutter has been fixed.



*Windows in east tower into mural passage, **S13**, looking north*

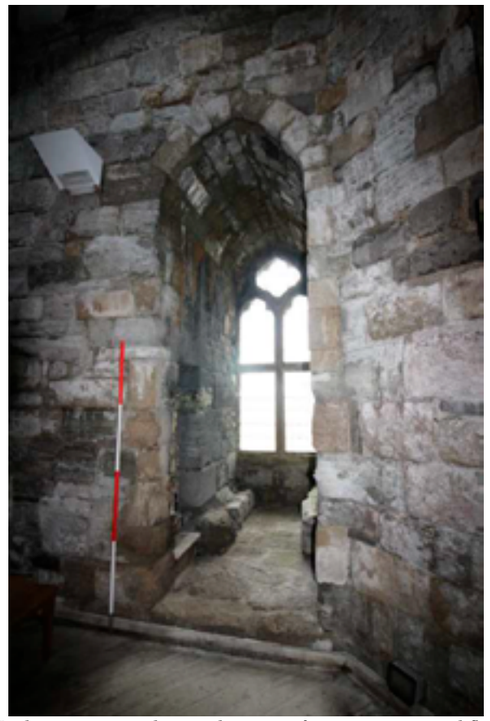
The north wall houses a very large fireplace, offset to the east of centre, to enable a 1'11" (0.58m) wide window to be placed to the west, affording light into the mural passage to the north (***S13***). This has symmetrical shallow splayed reveals, below heavily-warn concave quarter-round corbels, the lintel above which, has a more pronounced chamfer that that in the north-west wall. The window is again blocked with a timber plank panel against its internal rebate, below the stepped lintel.

The large fireplace is of 5'6" (1.68m) internal width, with the joggled lintel of the dressed sandstone/coarse-grit sandstone sloping fire-hood placed 7'4" (2.24m) above the stone threshold. The fire-hood is carried on projecting chamfered jambs, with concave corbels that appear to have had decorative bosses in the face, carrying large sandstone pads to the hood. These are flanked with further concave, quarter-round corbels, that on the eastern side infilling the angle between north and north-east elevations within the tower. Above the fire-hood the flue projects approximately 4" from the wall face, rising to ceiling level with somewhat ragged sides, compromising the level or decoration below. The fireback is recessed approximately 2' (0.61m) from the wall face, and is of squared limestone block construction above 3' (0.91m). Below this the stone work projects internally, and is of more random rubble, suggesting that there was original some structural stonework within the hearth. The flue above has a gradual taper to all sides.



Detail of second floor fireplace in east tower

The north-east wall has a large two-centred arch opening into a window seat at its eastern side. This is 12'6" (3.81m) high above a raised step, and of 3'10" (1.17m) width. It is of limestone and coarse-grit sandstone block construction, and of 7'10" (2.39m) depth to the large four-light window at its outer end. This has chamfered mullion and transom and trefoil cusps below a quatrefoil light above, displaying typical simple gothic tracery. The aperture is internally fitted with timber frames, and small frosted leaded panes, obscuring much of the detail of the stonework, which internally, appears original. Window seats were placed along the northern 4'6" (1.37m) of the window bay, the eastern surviving to its full height of 1'4" (0.41m), whilst that to the west appears to have lost the majority of its upper course. Both terminate at the position of an entrance in the west wall into a small private chamber, presumably a garderobe (***S14***). This has a plain coarse-grit sandstone block surround on its external face, with a flat lintel above.



Window seat in north-east elevation of east tower, second floor

The east elevation has a doorway of similar style to that in the north-west wall, towards its southern end. It is of slightly narrower 2'3" (0.69m) width, and has a bolt hole of approximately 2" (0.05m) diameter, and 2½" (0.06m) depth on its southern jamb, with further, possibly similar apertures blocked above and below. It afforded access into a wide mural passage (***S15***) that appears to have been intended to link to a range of buildings behind the curtain wall, to the east of the King's Gate.

To the north of the doorway, a concave quarter-round coarse-grit sandstone corbel carries the wall post for a large-scantling, east/west aligned ceiling beam. This carries large ceiling joists that rest on a wall offset capping each elevation, below a plaster ceiling. All elements of the ceiling and truss are of early-twentieth century date, as is the stone corbel in the east wall, and a matching example in the west wall opposite.

The south-east wall has a window hidden behind furniture, and is otherwise devoid of features, apart from a 10" (0.25m) wide course of white limestone, 2'7½" (0.80m) above floor level, and an angled, indented facing stone, approximately 10' (3.05m) above floor level, possibly representing a putlog hole, but also demonstrating the imperfect nature of the wall finish, which would have had wall coverings when originally used. Timber shuttering at the western end of the wall conceals a downpipe, presumably of twentieth-century date, given its asbestos content, with similar shuttering at the junction between south and south-west elevations. The south wall has an approximately 4" (0.10m) deep, 6" x 12" (0.15 x 0.30m) square socket, placed one course below the wall head, and which appears to have been rebuilt during the renovation of the ceiling and roof. It is positioned opposite the fireplace flue, and has no corresponding sockets for the opposing end of a beam, and is presently of unclear function.

The south-west wall has a 1½" (0.04m) deep rebate to a 1'4" x 9" (0.41 x 0.23m) recessed facing stone, placed 5'9" (1.75m) above floor level, and possibly representing an infilled putlog. An area of 2' x 9" (0.61 x 0.23m) to the south, in the course above, is infilled with small dark limestone fillets, and almost certainly represents a late-twentieth century repair, with smaller areas of similar fillets observed throughout the room, and with a 1'3" x 1'1" (0.38 x 0.25m) repair of similar style in the west wall. The west wall also has a slightly rotated, projecting coarse-grit sandstone corbel, similar to that in the east wall, and also probably representing a modern replacement. However, the large beam sockets at ceiling level above both corbels appear original.

The floor of the 'Education Room' is of modern east/west aligned plank construction, set 1½" (0.04m) below the threshold step of the entrance door in the north-west wall, level with the fireplace threshold, and probably closely resembling that of the original floor.

S13 – Mural Passage: to the east of the chapel, a mural passage was intended as mirror image of that of the west tower (***S2***). However, as elsewhere, the detail of its construction differs slightly to that to the west. The passage is of 2'8" (0.81m) width at its entrance, which does not have a tall arch above, and widens to a maximum width of 5'1" (1.55m) Within the passage three internal windows into the tower to the south match those within the western passage (***S2***), as do the six internal apertures in the north wall, serving three external openings for complex multi-positional arrow loops. The floor is similarly of random angular stone, below a flat slab ceiling, 9'1" (2.77m) above.



*Mural passage, **S13**, looking east*

Immediately beyond the eastern window in the south wall of the passage, it has a 36° northward splay, of 2'6" (0.76m) length, around the back of the large fireplace within the north wall of the tower. His narrows the mural passage to a width of 3'3" (0.99m) for its eastern 3'6" (1.07m). Within this narrower section, the ceiling steps 9" (0.23m) lower, with its south side supported directly by the passage wall, without corbels. Unlike in the western mural passage (***S2***), that to the east (***S13***) does not lead to a garderobe chamber, but instead has a return wall, forming the eastern end of the passage, the garderobe (***S14***) being accessed only from a window bay in the north-eastern wall of the east tower (***S12***).



*Narrowing of mural passage, **S13**, around rear of fireplace in east tower (**S12**)*

S14 –Garderobe: this comprises a small dog-legged room situated to the east the fireplace in the north wall of the east tower (***S12***), and formed a relatively spacious, accessed through a doorway in the west wall of the large window bay. The plain 1'11" (0.58m) wide doorway has a 9" (0.23m) wide jamb, to a 3¾" (0.10m) deep internal rebate, with flat internal lintels to the west carried on convex quarter-round corbels. The south reveal forms the internal wall of the chamber, but is obscured by north/south aligned stud panelling 4' (1.22m) from the doorway. Two angled coarse-grit sandstone blocks appear to form corbels for the ceiling at this junction, but this is also obscured by plasterboard, with a hole cut through for a ceiling light of late date. The dog-legged, 2'6"² (0.76m²) western return of the passage is completely obscured by plasterboard, but presumably conceals a garderobe, the base of which is also boarded over.



*Boarded garderobe, **S14**, looking north-east*

A 14½" (0.37m) wide window in the north wall affords good lighting to the chamber, and is plainly dressed, with symmetrical reveals to a rebate that is obscured by a timber frame with frosted glass to the approximately 7" (0.18m) wide external aperture.

The floor is of concrete, with two timber steps leading up 1'3" (0.38m) from the window bay into the chamber. The room is presently used for storage.

S15 – Mural Passage: to the east of the east tower, a wide mural passage appears to have been built to afford primary access from a structure intended to have been built to the rear of the King's Gate on its eastern side, most probably forming an approximate mirror image of the Prison Tower. It also formed the only original access to the eastern gate overlook (***F6***), via a passage in its west wall (***F7***).

Access into the passage was only possible from within the east tower at second-floor level (***S12***), through a door in its east wall. It is rebated on its eastern side, at the west end of the doorway, with a deep embrasure carried on two convex quarter-round corbels to each side, below a flat plain lintel. The doorway has deep, approximately 3" (0.08m) square sockets on its south jamb, presumably for original pintels, with smaller 2" (0.05m) diameter bolt sockets in both jambs. To the south, the doorway returns to form a 4'7" (1.40m) wide passageway, with five steps down to a lower floor level that houses the doorway into passage ***F7***. At its southern end it has toothed walls and floor, demonstrating the intention to extend the King's

Gate to the south, on the eastern side of its entrance, into a structure of at least two-storey height. The wide passage was designed to clearly be of some status with two large tiered convex quarter-round corbels carrying the high 11'4" (3.45m) rectangular block ceiling. This rises above the stair, reducing in height at its top level to 10'5" (3.18m), carried on only a single course of quarter-round corbels, adjacent to the stairs, the east wall contains a 1' (0.30m) wide 5'8" (1.73m) high aperture, angled through the gatehouse wall, and projecting 2' (0.61m) along the face of the curtain wall. It has tapering quoins forming its narrow 4½" (0.11m) western jamb, and has two convex quarter-round corbels carrying its flat internal lintel, the southern of which was dressed to include the profile of both the end of the arrow loop, and the angle of the adjacent wall face. The opening would have served little defensive function, its embrasure being too deep and narrow to afford a line of sight to external ground level. However, the angle of the aperture provided a good source of light into the southern part of the passage, demonstrating its function as a window.



*Mural passage, **S15**, looking south, to entrance to unfinished tower of the King's Gate*

At a distance of 3' (0.91m) to the north of the north jamb of the arrow loop, the east wall is rebated by 9" (0.23m), 1'4" (0.41m) above passage floor level. The base carries a chamfered projecting window seat of up to 11" (0.28m), curved at its northern end into the southern splayed reveal of a 3' (0.91m) wide window in the east wall of the King's Gate, in its short projection beyond the adjacent curtain wall. The 4'8" (1.42m) tall window has a flat external lintel, with deep chamfer, similar to the jambs and sill, and with a shallow 2" (0.05m) rebate on its inner face. The sill and both jambs have remains for two vertical and three horizontal, 1" (0.03m) square-section window bars, with further gouges at the top and bottom of the north reveal, and centrally in the south reveal suggesting a hinged and bolted shutter on the internal face, improving the security of the opening if required.



*Mural passage, **S15**, looking north, with narrow deep window on right*

The north wall of the passage has a 1' (0.30m) deep window seat, recessed into the wall face, but with only the western slab of the seat surviving intact. Its angled return to the west wall, which projects 11" (0.28m) further into the passage than to the south of the doorway into the west tower, is carried on a tiered convex quarter-round and squared corbel.

The random stone floor has been repointed, but appears original throughout.

Third Floor

T1 - The Constable's Hall: the third-floor level comprises the roof to the two octagonal towers of the King's Gate, and a wall walk to the curtain wall to both east and west. However, although the intention was to have been to build a large hall above the entire gatehouse, its north wall, and partial returns along the north-west and north-eastern sides, represent the only elements of this final phase of construction that appear to have been undertaken. It comprises significant elements of the construction of the hall, allowing some conjecture on how the finished hall may have been intended. It is also unclear for whom it was intended, although with a Great Hall situated in the lower ward to the south-west, it is possible that this smaller structure was intended for the castle constable.

It is of asymmetric design, in mainly coarse-grit sandstone block construction, with only the occasional use of limestone. It has large Gothic ornamental windows placed at either end of the north wall; that to the west offset slightly inwards to allow for a second, similar window to be placed within the north-western return. The three windows were of similar style, all set deep within the wall, with pointed arch vaulting to wide rebates either side of four-light windows, with chamfered mullions ad transoms and with Gothic tracery to cusped window heads and quatrefoil lights above, apparently of the same style as that within the east tower at second floor level (***S12***). However, at third-floor level, all elements of the tracery were replaced after 1895.



*General view of the unfinished upper floor of the King's Gate, **T1**, looking north-east*



East window of the third floor, with replaced tracery

Each window has window seats to either side, with chamfers to the projecting seat. The south-western seat of the western window continues around the internal wall face of the lesser-thickness north-west and west walls, terminating at the toothed, unfinished stub of the west wall, where it appears to have butted the rubble core of a chimney flue, serving the large ground-floor fireplace in the west wall of the tower (G***1***). Somewhat surprisingly, this flue was positioned such that no wall walk access would have been possible from the gatehouse to the west, marking a clear defensive distinction between the inner and outer ward within the castle. Even though the narrowest doorway identified within the castle is only 18" (0.45m) wide, and leads to a 20" (0.50m) passage to rear, both within the Eagle Tower, a passage of even these narrow dimensions would not have been possible around the rear of the flue in the west wall of the tower.



*Flue for fireplace at ground-floor level, **G1**, within original wall core incorporated into nineteenth century wall walk*

A single course below the head of the window seats, the north, north-west, and west elevations has a continuous projecting sandstone plinth, the chamfer of which, matches those of the window seats. This appears to have been intended as a base to the visible wall within the Constable's Hall, with the floor set immediately below, and forming a step into the window seats, and with a wider footplate to the continuation of the window seat beyond the west window.



Upper level of King's Gate, with plinth above intended floor level

Between the two windows in the north elevation of the Hall, what appears to be a simple recessed niche, actually forms a 'meurtrière' (murder hole), placed immediately outside the outer portcullis of the gate. No access to the feature is presently feasible, but the 1'9" (0.53m) wide feature projects 2' (0.61m) above the plinth at the base of the third-floor wall, with a plain, slightly-pointed arch carved within a single-piece sandstone lintel. Not only was this presumably included in the layouts of the earlier phases of the gatehouse walls below, but also shows that even in the 1320s, when there was relative stability in the region, defence was still an important aspect of the Constable's Hall design. Wide arrow loops either side, whilst appearing simple on the external face, each had three separate internal firing angles, affording full coverage of the north exterior of the gatehouse from this central position, and representing a highly evolved design for such a feature. Each is of 7" (0.18m) width, with slight splays to the wall face, and capped by a single-piece sandstone lintel, moulded to copy the concave quarter-round corbel and flat lintel design seen elsewhere within the King's Gate.



Detail of arrow loops and 'meurtrière' (murder hole) in north wall of upper floor

Two courses above the arrow loops, four eroded corbels project from the wall face, with all but the east-central example retaining elements of carved faces on their southern side. The western corbel is the best-preserved, retaining an octagonal head plate, with two brass straps apparently stabilising the carved face below. These were clearly intended to carry wall posts for a five-bay roof, with each having a relatively shallow socket for a slender ceiling beam above, reflecting the intended more decorative nature of the Hall. Two courses above these beam sockets, the wall has been rebuilt to form the internal wall of the battlement wall-walk, incorporating five drain apertures, and having been undertaken after 1895, when the ruined and overgrown parapet appears in historic photographs, most probably in 1896, when Llewelyn Turner appears to have undertaken a major programme of repair to the King's Gate.



Detail of best-preserved carved head corbel, with late brass support strapping

Along the length of the north wall, between the plinth and the window seat height, an irregular, but deeply carved 2" (0.05m) wide rebate appears to represent an inserted feature. For much of its length, it is cut directly into the face of limestone blocks, although it is also gouged into the mortar bed above shorter limestone blocks in the centre of the elevation. The feature appears to represent the roof line for what was presumably intended to be a temporary roof over the two towers and linking block of the second floor below. Its probable form would have comprised a single-pitched shallow roof, with the lead rebated into the channel cut into the north wall, and with its southern edge set onto a large timber wall plate that could easily have been laid on the outer edge of the south walls of the two towers.

The short section of north-east wall has four courses of raking, convex quarter-round corbels below its rebuilt wall-head. These are set higher than the beam sockets in the north wall, suggesting an open trussed roof to the hall, with an ornate hip at its western end.

The east end of hall appears markedly different, with the keyed return into what appears to be a plain wall. It is of slightly darker coarse-grit sandstone and limestone block construction, also incorporating several blocks of red sandstone, and is less evenly coursed than the north wall. It has been heavily remodelled at its upper level, along the inner face of a mural stair to the battlements above the hall, the darker, mixed fabric suggesting that repair work was undertaken by Anthony Salvin, in the mid-nineteenth century. The access stair to the battlement appears to have been placed towards the southern end of the north-east wall of the third floor, rising to the south-east before turning east to afford access to the battlement passage above. Again, this area was heavily remodelled, apparently around the turn of the twentieth century, representing part of Llewelyn Turner's works to the King's Gate. However, evidence for nine steps survive within the wall face, the second being the most prominent, with its 10" x 8" (0.25 x 0.20m) section projecting 1'10" (0.56m) from the wall face. Four broken steps above appear to have been placed perpendicular to the north-east wall, with the upper having a much wider two-piece tread, above which the stair appears to have comprised three winders, rotating the stair through 90° to a remodelled doorway in the upper north-east wall. The winders are overlain at their inner end by the rebuilt wall, suggesting that they did not have a rounded newel, as seen

in the spiral stair within the Prison Tower (***F4***/***S7***). The lower winder possibly survives to its original width, comprising a two-piece limestone step of 2'4½" (0.72m) width, its outer edge flush with the east wall of the hall, which is possibly partly refaced in this position, comprising largely limestone blocks, with less coarse-grit sandstone than seen elsewhere at this level. Fine-grained sandstone jambs forming a return south wall of the stair are clearly late, having pecked tooling and dressed margins, typical of the late-nineteenth century, whilst the top of the extant stair appears blocked to two courses, below a further jamb of late fine-grained sandstone quoins, again with dressed margins, and forming a doorway to the mural passage to the battlements. To the north of the doorway, much of the upper wall appears to have been rebuilt,

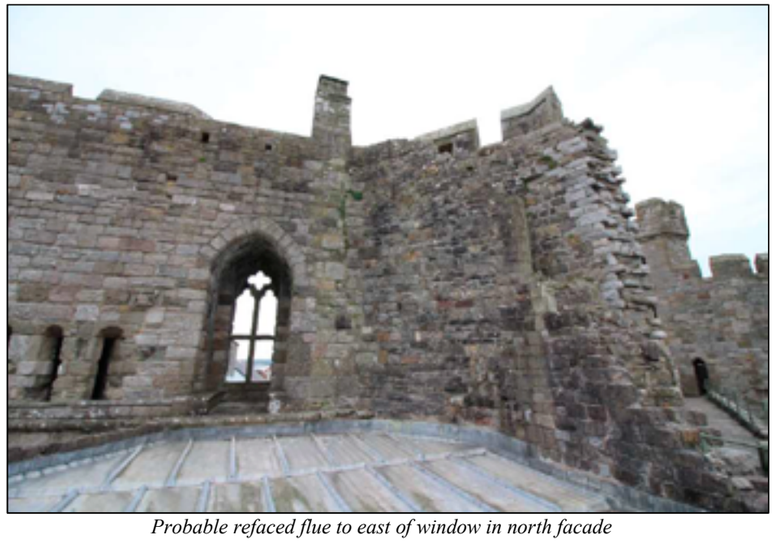


forming a band of approximately 5'(1.53m) width at the top of the north-east wall.

Remnant of former stair to battlements above third floor

Between the position of the stairs and the eastern window in the north wall, a vertical alignment of generally larger, and more yellowish sandstone blocks appears to represent a refacing of a flue. At its upper end, it aligns with the rebuild immediately below the parapet level chimney stack, whilst its lower end corresponds with damage to the plinth, and aligns with the irregularly

faced flue within the room below (S12), strongly suggesting that the entire chimney was rebuilt at some point.



Probable refaced flue to east of window in north facade

Floor levels within the upper level of the King's Gate have been modified in the twentieth century, both to improve visitor access and to conserve exposed fabric. Several elements offer an indication of the intended floor level, although this was almost certainly never achieved, with evidence for a roof having spanned the area instead. An offset around the upper level of the west tower would have carried ceiling joists, suggesting a floor level 18" (0.46m) below the offset across the north elevation. A further stone offset into the north-west corner, extending the area of the hall for the thinner wall thickness of the upper stage, is unlikely to have had flooring timbers laid directly above, and itself was probably intended to carry narrow-scantling floor joists. Its level is marginally below that of the north-east wall of the west tower, which although it has been partially re-capped and consolidated, is at the same level of the extant upper walls of the chapel. Here a flat wall-top level survives, positioned directly above the crown of the large central arch, demonstrating that floor level for the hall could not have been any lower than this height. Although the walls to both north and south have rebates at their upper levels, these were intended to carry wall plates, presumably carrying rafters of a shallow pitched roof, rising slightly above the height of the arch in the centre. Within a completed hall, this roof must have been replaced with floor joists spanning the voids above the chapel. The chapel wall heads are significantly below the north wall plinth, and with the addition of a probable 6" (0.15m) section joist and 1" (0.03m) thick floor boards, it would appear that floor level could have been achieved in this part of the Hall at a level of approximately 1'6" (0.46m) below the plinth. This probable floor level suggests that an extra step would have been required within the battlement stair at the eastern side of the hall, with the extant 1' x 5" (0.30 x 0.13m)

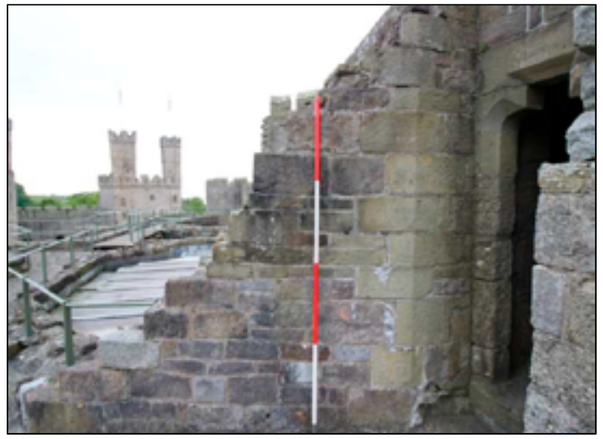
coarse-grit sandstone facing block in the wall in this position presumably representing the cut face, or infilled socket of a wide lower step.



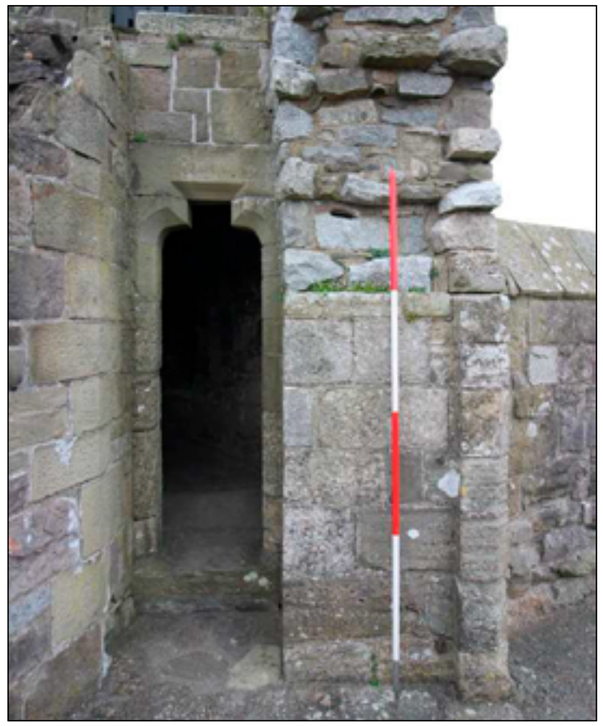
*Floor level above arch within chapel, **S10**, with later capping either side*

The majority of the extant walls of the third-floor level of the King's Gate project above this height however. Those now forming an approximately 1' (0.30m) high edging wall to the now continuous wall walk around the southern side of the tower, can clearly be seen to have been augmented, comprising much smaller blocks, involving a wider range of stone types, including granite, and roughly built to course. These interventions appear to date to repairs undertaken by Antony Salvin in the mid-nineteenth century, and continue northwards, above the east and west side walls of the chapel. The east tower has significantly wider and taller fabric projecting above the conjectured floor level, which butts the plinth at its northern end, clearly not representing an element of the original construction of the upper stage of the King's Gate. It is of similar construction to the other raised walls, and appears to have represented an increase in wall height for the construction of a late roof above the east tower, with the leading of the present twentieth century roof having been fixed to its inner face.

T2 – Garderobe Passage: to the east of the intended Constable's Hall, a mural passage was included within the east and north-east elevations of the east tower, apparently with original access from the battlement wall walk from the Granary Tower to the east, as well as from the hall. It has a 2'6" (0.76m) wide, 1'7⅜" (0.50m) return from the wall walk, the western side of which has been partly rebuilt, with all the quoins of its shallow return angle to the south, having been replaced with dressed, fine-grained sandstone with tooled margins. However, sufficient original fabric survives to suggest that the rebuild followed the original wall line. The passage has a 1'9½" (0.55m) wide doorway at its southern end, stepped up 8½" (0.22m) from the present re-laid coarse-grit sandstone walkway floor, to a worn sandstone threshold. The deep-chamfered jambs comprise original coarse-grit sandstone at the lower levels, but have been replaced with sandstone above 4'6" (1.37m) on the west jamb, and 2'7" (0.79m) to the east. The deep-chamfered sandstone lintel also represents a replacement, as do the shallow depressed concave corbels carrying it.



*Garderobe passage, **T2**, at eastern side of upper floor, looking north*



*Detail of rebuilt entrance to garderobe passage **T2***

The dog-legged mural passage is of 3'2" (0.97m) width, with limestone and coarse-grit sandstone built-to-course walls, all heavily repaired with V-taper and flat ribbon pointing, using cement mortar, almost certainly of Ministry of Works date. The north-east wall has two tall, wide arrow loops, both of 4'6" (1.37m) height, and 2'7" (0.79m), and 2' (0.61m) wide at their inner faces, with large single-piece lintels carried on concave quarter-round corbels. Both have symmetrical reveals, narrowing to 8" (0.20m) at the outer face of the 3'9" (1.14m) thick wall, and appear to have served primarily as windows, allowing light into the passage, which terminates in a garderobe chute to the north of the narrower northern window. This retains an 8" (0.20m) high, 2'3" (0.69m) deep base, capped with a modern cement flagstone, with a 1'10" (0.56m) wide raking limestone infill, to a chamfered quoined return on its western side. This formed a 9" (0.23m) wide blocked vertical vent to the wall walk above.

The ceiling comprises large limestone, sandstone, and coarse-grit sandstone blocks, carried on convex quarter-round corbels, two corbels around the southern return of the west wall represent replacements, with the two adjacent ceiling flagstones probably also being contemporary.

The floor is of concrete, with patched repairs, and a relatively late 1'2" (0.36m) wide ramp, from the rear of the 1'8" (0.51m) wide sandstone threshold, raising the floor by 5" (0.13m) to the north. The passage continues to rise slowly to the north, being approximately 12" (0.30m) higher adjacent to the garderobe at its north end.

5. Discussion

5.1 Introduction

Initial analysis of the King's Gate has revealed four principal phases of medieval construction, with three further phases of rebuilding and repair comprising mid-nineteenth century repairs by Anthony Salvin, late-nineteenth century works directed by Llewelyn Turner, and those undertaken by the Ministry of Works, apparently from the second decade of the twentieth century to a relatively recent date. The medieval phases appear to correlate broadly with the major episodes of the construction of the castle, around the turn of the fourteenth century, although it is unlikely that exact dating of phases would be anything other than conjectural beyond that of the initial construction of the foundation of the King's Gate.

5.2 Phase 1: 1283 – c 1294

The earliest phase dates to the late-thirteenth century, during the initial construction of the stone-built castle. Whilst the southern part of the castle was built to a substantial height during this initial phase, the area between the Eagle Tower and North-east Tower, forming the northern curtain wall of the castle, was deemed less important, forming only a secondary fortification behind the fortified town walls. Construction was therefore, only undertaken to approximately ground-floor floor level, on the southern side of a large ditch, which was begun in 1283. The stonework of this phase is visible externally, as a much darker band of stone, and appears to represent a hard limestone, its dark coloration possibly being both a factor of weathering and damp. It has a chamfered plinth at its base, although this is partially obscured by the silted moat/ditch, and survives to a height of approximately 3.5m above the present base of the partially re-excavated Castle Ditch, being clearly visible in the curtain wall to either side of the gatehouse towers. The external northern façade of the King's Gate was partially remodelled for the insertion of a stone bridge across the Castle Ditch in the nineteenth century, further obscuring the detail of the original stonework, which appears to be distinguishable from the later fabric by its shallower course height, and generally slightly darker appearance to the wall above.

Internally, the gatehouse is presently heavily obscured by modern fittings in all but the western tower, which has very limited access, but a clear change of fabric can be seen within the present staff room (Room ***G10***), 0.84m above floor level, where the wall comprises larger grittier squared sandstone blocks above. This suggests that the King's Gate, and possibly the other towers within the northern wall, may have been internally erected to a slightly higher level than the intervening curtain wall within the initial phase of construction, which was only ever intended as a temporary stage, and without usable rooms.

5.3 Phase 2: 1295 – 1304

The town walls were breached by a Welsh uprising led by Madog ap Llywelyn in 1294, and during their occupation of the town, they slighted the unfinished castle. Following its reclamation by Edward I's forces in the spring of 1295, the documentary sources demonstrate that work on the castle resumed in June of that year, and continued at a consistent rate until 1304. It is likely that the second identifiable phase of construction identified within the extant fabric of the King's Gate dates to this period, but this remains somewhat conjectural.

The phase comprises two further floors within the King's Gate, of paler limestone construction, using slightly larger squared stones, and with the inclusion of some pale sandstone members. Evidence within the structure of the gatehouse suggests that the work was undertaken in two stages (Phase 2a and 2b), the first comprising a height of approximately 20' (6.09m), completing the ground floor to approximately head height on the internal side of the structure, with the subsequent addition of approximately 12' (3.66m) completing the tall ground floor.

Master James of St George was only involved until 1295, with works from 1295-1308 being overseen by Master Walter of Hereford. Following his death, work was taken over by Master Henry of Ellerton, early in 1309, and who had been Walter's deputy since at least 1305 and like him a burgess of Caernarvon at least as early as 1298. Master Henry was replaced late in 1323 by Nicholas of Derneford, who had been in charge at Beaumaris (where he presumably worked with Master James, who had overseen the early build there), and now took charge of works at all the castles of North Wales. This combined with recent re-examination of the role of James of St George (Williams and Kenyon 2010), suggest that he may have had less influence on the design than previously credited.

Unlike in the Phase 1 external walls of the castle, bands of reddish/brown sandstone were not included on the external face of the tower, or the adjacent curtain walls, giving the northern ring wall a much less striking appearance than the imposing southern façade.

Internally, the wall fabric is almost completely obscured at ground and first floor levels within the eastern tower of the King's Gate, whilst the western tower has had all internal fixtures removed, affording more detailed examination of the stone structure at this stage of the project. The level of an apparent change of phase of construction within the west tower is somewhat ragged, suggesting either a certain element of refacing during later additions. The second phase structure appears to have added tall ground floor chambers, of approximately 19'6" (5.95m) height, including an offset for a future upper stage within each octagonal tower. Evidence within the exposed west tower, however, suggests that the ceiling offset of this tall ground-floor room did not form the roof of the tower at this date.

The slender window in the west wall of the west tower, positioned 7' (2.13m) above offset level faces outward from the tower, into what is presently the chapel (***S10***). The chapel, however, appears to form part of the Phase 3 expansion of the King's Gate, with a window into its side-wall also seeming to be an unusual feature if the two rooms were contemporary, particularly as it would not have overlooked the probable position of the altar. Furthermore, it is assumed that the chapel would have been of higher status than the second-floor level room

within the west tower, with the window accordingly facing out from, rather than into, the chapel. Three extant quarter-round corbels in the eastern and southern walls of the west tower appear consistent with the Phase 2 tower continuing above offset level, almost certainly carrying a timber wall plate around the internal face of the tower, onto which the rafters for a shallow pyramid hipped roof were set. Further corbels, which were presumably placed at the junctions of the other elevations within the tower, would have been removed for the insertion of windows and doorways in the remodelling of Phase 3. It is probable that the west tower of the King's Gate had a low room at second-floor level within the Phase 2 tower, and the inclusion of a window in the east wall, not matched in the east tower, and being one of the key identifying features of chapels within medieval castles, also supporting its possible use as a chapel, although this is highly conjectural.

5.4 Phase 3: c 1310 – c 1320

The third identifiable phase of construction within the extant fabric appears to represent a significant episode of architectural embellishment of the King's Gate, which correlates with the documentary sources' account of the castle as a whole in the second decade of the fourteenth century, under the control of Master Henry of Ellerton. A carved eagle was set on the completed Eagle Tower in 1317, and the placement of the statue of Edward II in the northern façade of the King's Gate, above the grand entrance, is known to have been undertaken in 1320, and probably marks the culmination of this phase of works to the King's Gate.

It is identifiable by a predominant use of large blocks of coarse-grained sandstone, both of a greyish nature, possibly from the local quarry at Twthill-bach, on the outskirts of the town, and also a light-brown, coarse-grained sandstone, somewhat similar to the decorative bands on the south exterior, and which is suggested by the documentary sources to have come from Aberpwll or other quarries on the Menai Strait (RCAHMW 1960), notably in the Vaynol (Bangor) or Penmon (Anglesey) outcrops ((Lott 2010).

It incorporates the upper complete storey of both towers of the gatehouse, and an adjoining link block, which contained a chapel. Not only does this reflect the greater role of status rather than pure defence by this date, but the rooms within either tower each retain large fireplaces with ornate stone fire-hoods, far more elaborate than those anywhere else within the gatehouse. This upper story also included large lancet windows in the north-west and north-east elevations, whereas only arrow loops were included on the outer face of the gatehouse in the earlier floors. However, the inclusion of two portcullis apertures within the chapel, and 'meurtrières' above the passage within its floor, demonstrate that defence was not overlooked, and that the gatehouse could rapidly be converted to a heavily fortified military structure. The documentary sources suggest that the inhabitants of the town were still very fearful of attack by Welsh locals, even at this date (J Ashbee, *pers comm*).

It is possible, however, that the feature represents a hand basin. Such features are not uncommon within chambers across Welsh castles (W Davies, *pers comm*). If this were the case

within the King's Gate, then the interpretation of the room as a guard room, would fit more suitably with the other features within the room.

5.5 Phase 4: c 1320 – c 1330

The final major phase of medieval construction within the King's Gate is difficult to differentiate chronologically from that immediately preceding it, although the documentary sources would suggest a date of between around 1320 and 1327-30, after which time the amount being spent on works to the castle were not sufficient to fund any major building programmes.

The stonework differs from that of Phase 3, comprising smaller, roughly-squared rectangular limestone blocks, with a much reduced use of other stone types. The intention appears to have been to build a 'Constable's Hall' on top of the gatehouse, but the change in political circumstances during the early/mid-fourteenth century meant that the expenditure required for its completion was no longer worthwhile by around 1330.

Its intended layout can only be speculated upon, and no documentary evidence for its design have been revealed to date, and being highly unlikely to survive. Only the front, northern wall was completed, with returns around the angle of both octagonal towers to the junction with the curtain wall either side of the King's Gate, the new construction towering approximately 3m above the battlements of the curtain walls. This is of asymmetric design, with large Gothic windows not only in the northern face of either tower, but also in the north-western face of the west tower only. Between the two central windows, what appears to be a simple recessed niche, actually forms a 'meurtrière' immediately outside the outer portcullis of the gate. Not only was this aperture presumably included in the Phase 2 and 3 layouts of the gatehouse, but also shows that even in the 1320s, when there was relative stability in the region, defence was still an important aspect of the King's Gate design. The arrow loops either side not only provided full coverage of the north exterior of the gatehouse from this central position, but also represented what would have been cutting-edge military technology at this time, possibly suggesting their inclusion more to impress, rather than for functional reasons.

A flue from the Phase 2 ground-floor level fireplace in the west wall of the west tower was positioned such that no wall walk access would have been possible from the gatehouse to the west, marking a clear defensive distinction between the upper and lower ward within the castle. Even though the narrowest doorway identified within the castle is only 18" (0.45m) wide, and leads to a 1'8" (0.50m) passage to rear, both within the Eagle Tower, a passage of even these narrow dimensions would not have been possible around the rear of the flue in the west wall of the tower.

The inclusion of an internal stair at the eastern side of the hall, apparently forming the sole access to the battlements above raises further questions about the intended layout. This clearly represents a 'working' element of the upper floor, with members of the garrison requiring access through this end of the upper floor to the stair. This part of the intended third floor was also devoid of a window in its angled return, but one was placed towards the eastern end of the north wall, suggesting high status to within at least 5' of the return of the north-east wall. This strongly suggests that the intention was to partition the stair within a narrow passage of either stone or more probably timber, given its position within the void of the east tower.

The position of the third-floor level garderobe is also somewhat confusing; given that the 'high' end of the proposed Constable's Hall was undoubtedly to the west, it would be expected that a relatively high-status garderobe would be provided within easy access, as at second-floor level

within the east tower (***S14***). However, the positions of flue from the ground-floor level fireplace, and the large window bay in the north-west elevation, presumably included to give views over the approach down the Menai Straits, the town wall gate, and over Anglesey beyond, left little space for such a feature at the west end of the proposed hall. Recent work at Denbigh Castle, which is of broadly contemporary date to that at Caernarfon, has revealed deep and extensive culverts, serving drains within inner walls of the castle, demonstrating that not all garderobes had to be placed on external walls, as has been previously accepted (W Davies and C Jones-Jenkins, *pers comm*). However, it remains likely that the garderobe at the upper level of the King's gate was placed in its north-eastern projection, as this was the most viable position, especially given that both the northern and western elevations of the gatehouse presented monumental facades to those approaching from within the town, or by sea (J Ashbee, *pers comm*). Affording access to the garderobe passage from the adjacent wall-walk from the Granary Tower appears logical, but would doubtful have been a consideration of its placement, given the politically stability in the region at this time suggesting that the battlements above the unfinished King's Gate were more of a demonstration of power, than for actual regular use.

There is no extant evidence for the proposed position of a fireplace within the unfinished hall above the gate house. This would have been a key feature within the hall, and the way the hall functioned would have been largely determined by the position of the fireplace, which would presumably have been large and ornate, had it been constructed. Extant flues survive on the western and southern sides of the western tower, and have been identified on the northern side of the east tower, demonstrating that the proposed great hall was likely to use the southern internal wall of the two towers within the gatehouse to form the southern side of the Constable's Hall, otherwise chimney breasts would project from the internal face of the wall. Given the probable position of stairs against the east and north-east walls, and no position available for a large fireplace in the north wall, its position must have either been in the western or southern walls. The west wall would be a very unlikely position for a large fireplace, as not only would this have almost certainly placed it directly behind the top table within the hall, but would also have minimised its heating impact on the large hall as a whole. It is, therefore, probable that the fireplace would have been positioned similar to those within the slightly earlier gatehouse at Harlech Castle, Gwynedd, where fireplaces within halls at first and second-floor levels were positioned in the south wall, offset to the west of a central entrance. A flue already exists at this position, beyond the south wall of the west tower, suggesting that this may have been incorporated into the chimney breast and flue of the proposed fireplace within the Constable's Hall.

Access to the proposed third-floor level hall is also somewhat unclear from the extant fabric. It appears fairly conclusive that access was intended from a spiral stair in the south-west corner of the Prison Tower. This also afforded access to the second-floor rooms during the third phase of construction of the King's Gate. The gatehouse at Harlech Castle, and both the south and north gatehouses at Beaumaris Castle, Anglesey, had access from spiral staircases placed at the rear corner of the structure, although in both instances, the arrangement comprised a tower at either corner, projecting from both inner corners of the gatehouse. It is highly probable that something similar the intended for the final planned layout for the King's Gate at Caernarfon, with two rectangular towers placed to the rear of the large front octagonal towers, each with a spiral stair tower within their rear outer corner. Evidence within the central and eastern sections of the rear of the extant King's Gate, clearly demonstrate that further structures were intended on the southern side, and it would appear logical that any such extension would have produced a final gatehouse plan form that was broadly comparable with the contemporaneous Edwardian royal castles. This would have placed the entrance into the hall either centrally within the south

wall, above the gate passage, or more probably offset towards the lower end of the hall, as at Harlech.

It remains unclear whether the intention was to complete the construction of the Constable's Hall with only a single stair tower and ante-chamber, to its south-western side, followed by the completion of the south-eastern quadrant of the King's Gate in a subsequent phase, or whether all remaining work was intended to form a large-scale final phase for completion.

The area between the King's Gate and the Chamberlain Tower, to the south, was also clearly intended to have been the site for further structures. These would have certainly linked into the King's Gate, as a doorway had already been erected in the south wall of the Prison Tower, at first-floor level, access from the spiral stair in its south-western corner. Toothing high within the Chamberlain Tower, is aligned with the west wall of the Prison Tower, suggesting that a full range of buildings, of up to three-storey height, had been intended to divide the upper and lower wards of the castle upon completion. This represents the narrowest point of the 'hourglass' plan form of the castle, and it appears that a ditch was excavated or intended along the western side of the range of buildings, as the footings of a drawbridge were included as early as Phase 2, within the fabric of the Prison Tower, at the western end of a passage placed on its southern side. Substantial foundation walls survive to the south of this passage, and it appears unlikely that this represented the full extent of their construction, suggesting that a partial range of buildings was erected across the narrow space between the King;s gate and Chamberlain Tower, to at least ground floor-height. How this range would have functioned within the castle had it been completed is purely conjectural, but it seems highly probable that it would have had communication with the King's gate at the upper level.

Given that the population of the castle was never substantial, with most of the administrative roles of regional administration being undertaken by the Justicar in the Shire Hall at a relatively early date (J Ashbee, *pers comm*), it is not surprising that the accommodation within the castle appears to have been scaled back, possibly following the death of Edward I

5.6 Phase 5: 1845 – 1847

Although modifications and repairs were undertaken in the period between the mid-fourteenth and mid-nineteenth centuries, the most significant of these relating to the King's Gate probably being the conversion of the Prison Tower into a Custodian's Cottage, those of the following period have left a more permanent mark within the fabric of the entire castle, and chart and important history of relatively early, Victorian castle conservation and management. The first phase of this work, undertaken under the direction of architect Anthony Salvin, from 1845, appear to have been brought about as a response to the partial collapse of the Queen's Gate (Avent 2010). He appears to have been charged with the task of making the castle safe, and spent the following three years concentrating on repairs to battlements, and other areas where fabric may collapse and cause harm.

Within the fabric of the King's Gate, only one such repair can be confidently assigned to this phase, comprising a repair to the external face of the upper north-east and east walls of the east tower. Whilst it was initially thought that this work could be attributed to the extensive battlement repairs of Llewelyn Turner, in the following phase, photographic evidence from 1895 clearly shows the repair of this part of the external wall face having been undertaken in advance of Turner's campaign of works to the King's Gate.

It is also likely, yet unproven, that elements of the toothing of the unfinished walls of the third-floor level Constable's Hall that comprise pale grey granite blocks, are also attributable to the works of Salvin, in the mid-nineteenth century.

5.7 Phase 6: c 1896

The major phase of Victorian remodelling of Caernarfon Castle was undertaken at the instigation of the Deputy Constable of the Castle between 1870 and 1901, Llewelyn Turner. Although much of the work appears to have been based somewhat on a romantic reinterpretation of the castle, it did stabilise the monument, and create improved access for visitors, at a time when the castle was already established as a tourist attraction. Much of Turner's work was undertaken in fine-grained sandstone, but also used local stone, particularly limestone. Areas of repair are generally discernible as being of more rubble stone, and greyer in appearance than the earlier fabric. Major episodes of repair were undertaken throughout the castle, and concentrated in particular on battlements and refurbishing stairwells, to afford safer access to larger areas of the monument.

Within the King's Gate, Turner's work can clearly be distinguished to the upper north wall, above the intended Constable's Hall. Although artistic illustrations of the King's Gate from the eighteenth and nineteenth centuries show survival of some of the battlements, it appears that Turner's work removed and rebuilt these surviving elements, in order to create a continuous new build. Access to the battlements of the King's Gate was not practical during this first phase of the recording, but it can clearly be seen from third-floor level that both the inner and outer walls of the wall-walk have been rebuilt. A gate at the southern end of the battlement mural passage is of twenty-first century date, but hangs on gateposts that were remodelled as part of the 1896 stabilisation work.

5.8 Phase 7: c 1908-

Following Turner's death in 1903, State sponsored interventions at the castle were driven by the announcement of the investiture of Edward as Prince of Wales, at Caernarfon Castle in 1911. Not only did this require a huge amount of timber staging and seating to be installed, but also instigated a large-scale programme of maintenance and improvement within the castle. Safe access was required to many parts of the castle, and many rooms needed to be re-created to house important visitors. Possibly all the timber ceilings of large-scantling oak beams, carried on wall posts and angled braces date from this period. This includes elements of the King's Gate, most especially in the east tower, and the ground floor of the Prison Tower, now used as a shop. Stabilisation work and the creation of low parapet walls to the walkways on the top of the King's Gate possibly date from this phase, but may also have been undertaken during Turner's remodelling of the gatehouse several years earlier. A timber bridge across the south side of the chapel was certainly in place prior to the investiture, but the extant bridge, and that at second floor level within the west tower, appear to relate to Ministry of Works interventions in 1953.

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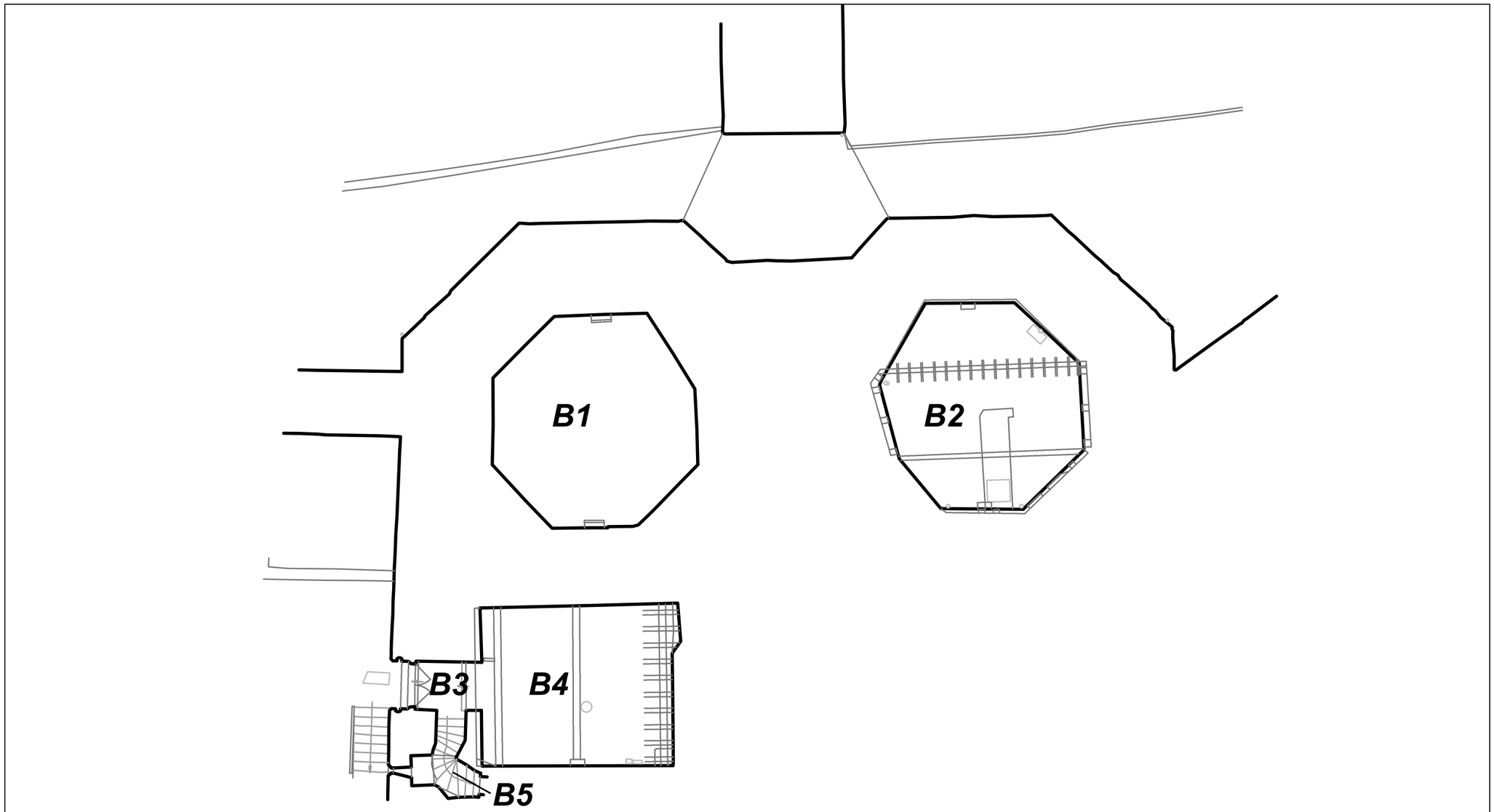
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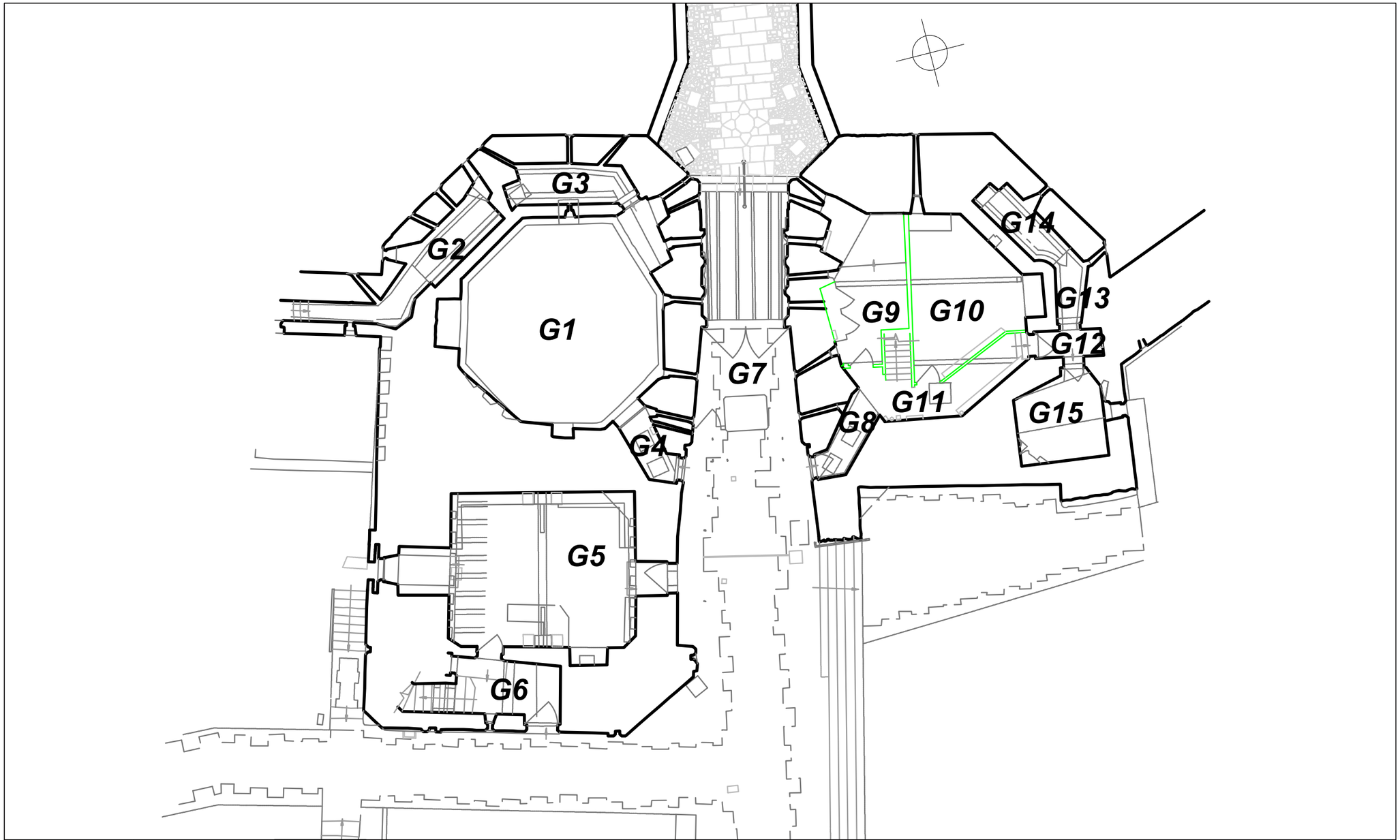
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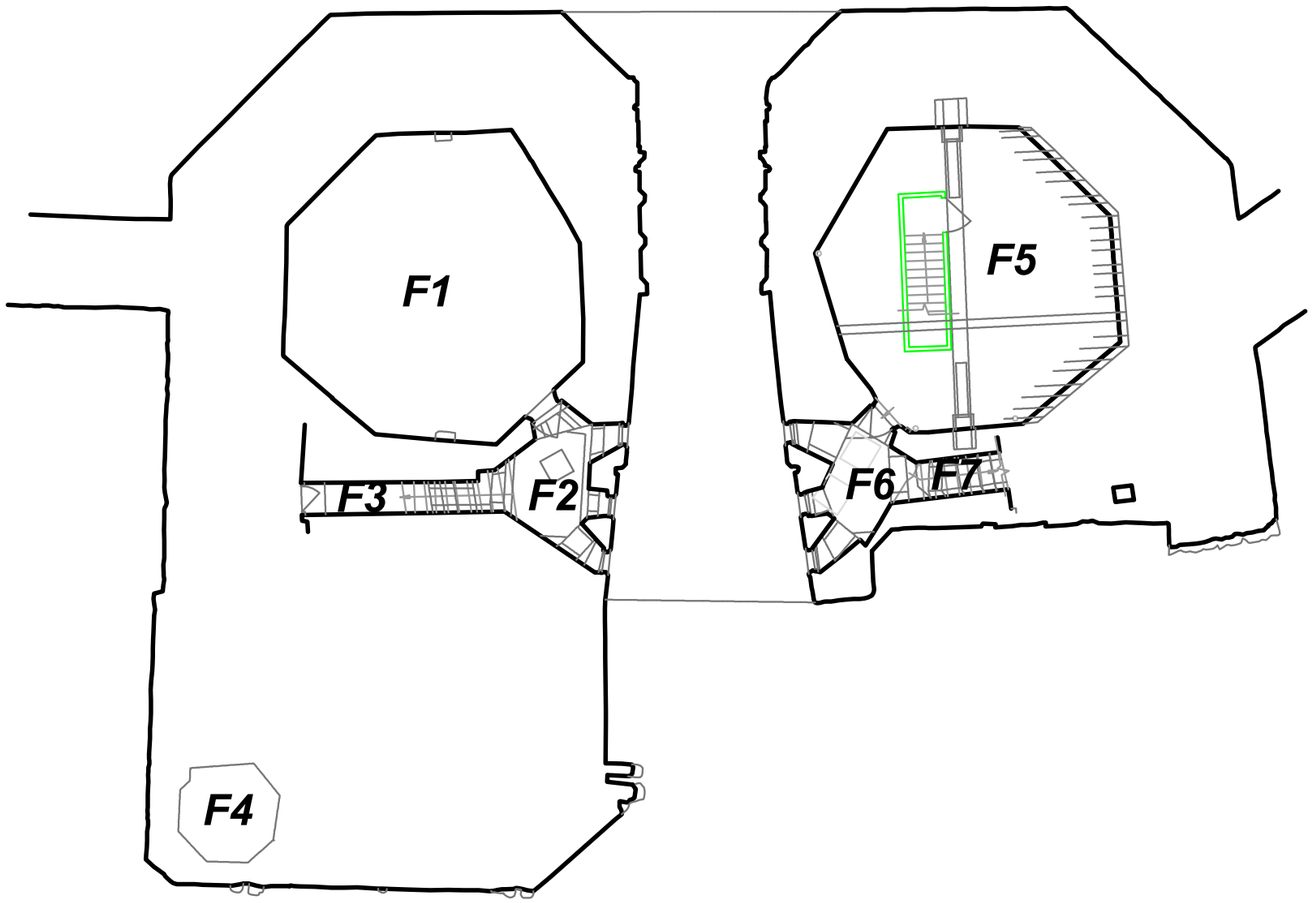
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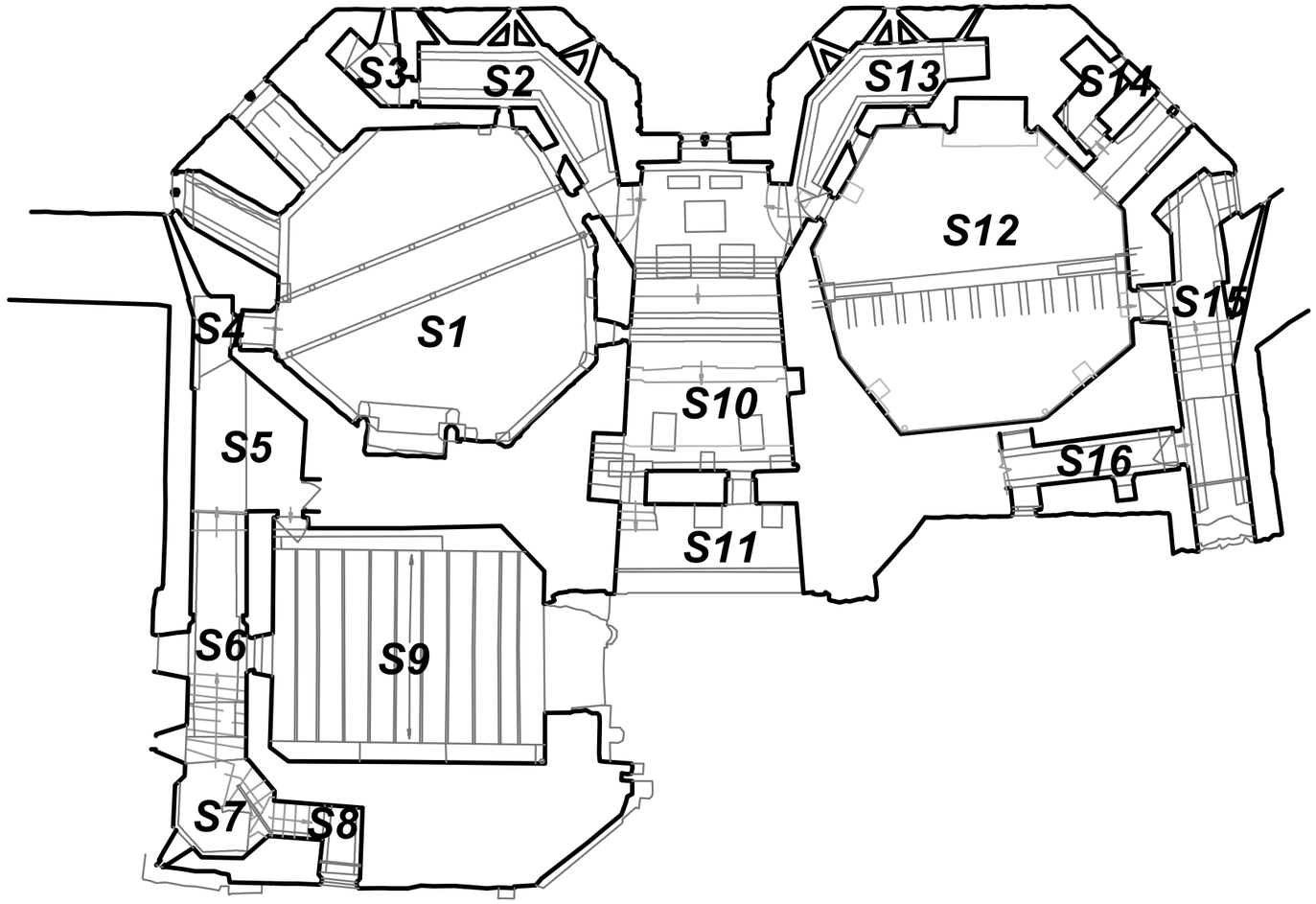
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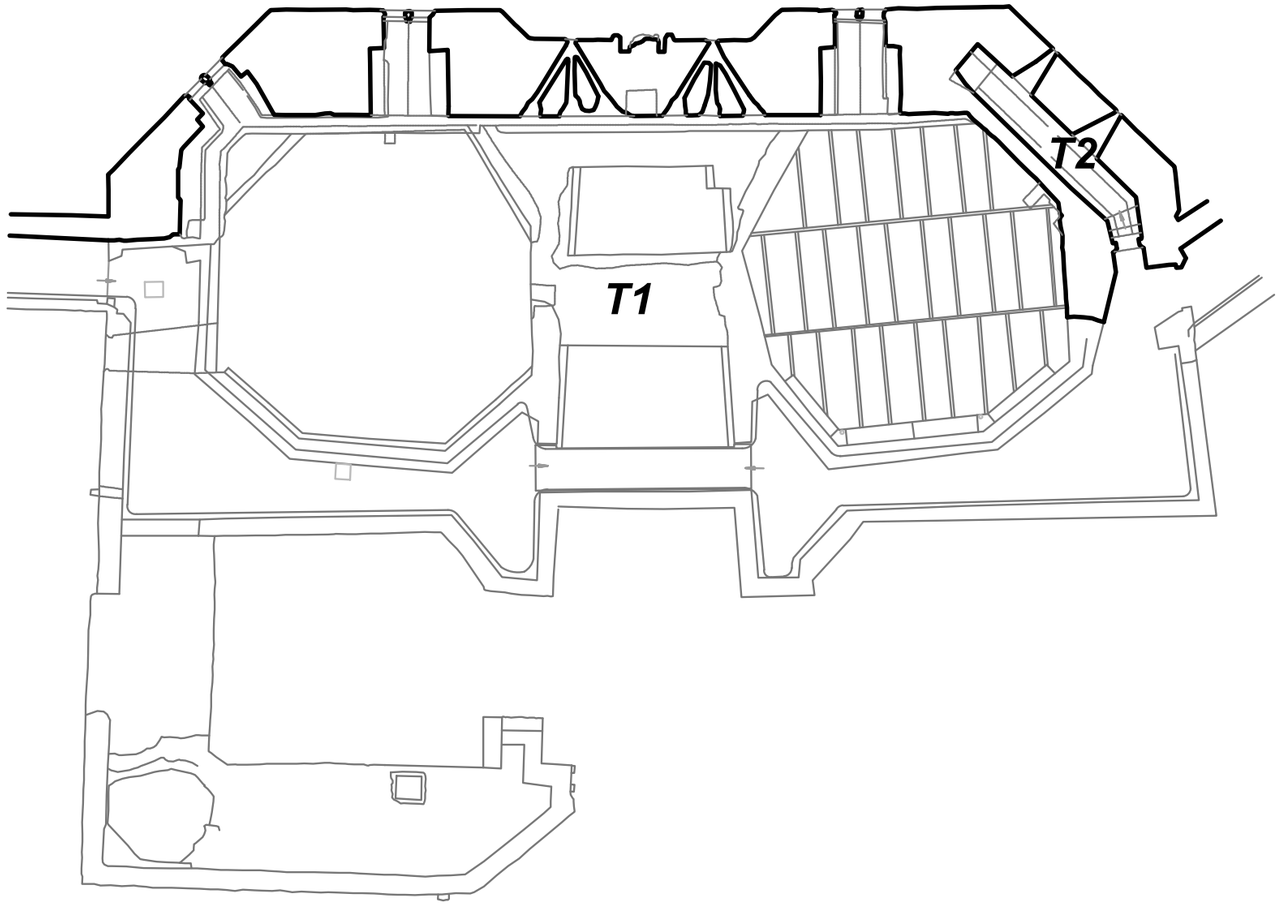
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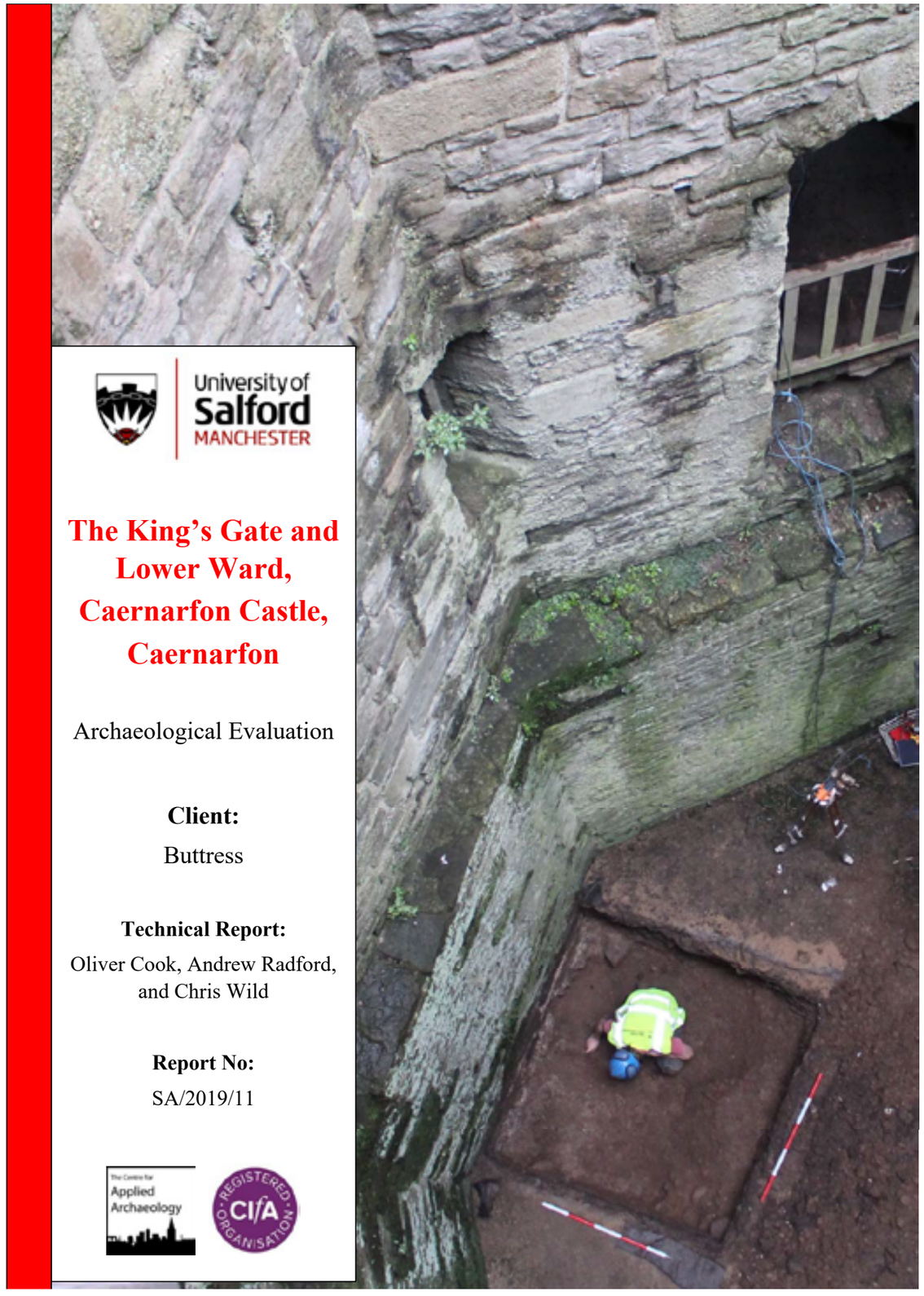


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16.9 Salford Archaeology. Archaeological Evaluation: The King's Gate and Lower Ward,



Site Location: Caernarfon Castle, Caernarfon, Gwynedd

NGR: Centred at NGR: 247796 362683

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Contact: Salford Archaeology, Centre for Applied Archaeology, Peel Building, University of Salford, Salford M5 4WT

Telephone: 0161 295 4467 Email: c.m.wild@salford.ac.uk

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© SA: The King's Gate and Lower Ward, Caernarfon Castle: Archaeological Evaluation

Summary

Buttress is preparing design proposals on behalf of Cadw to remodel the King's Gate at Caernarfon Castle, Caernarfon (centred on NGR 247790 362665), to provide enhanced access and visitor facilities within the structure. The proposals allow for the removal of modern fittings and partitions within the towers of the King's Gate, and the insertion of new fabric and infrastructure, including a new lift in the West Tower and infrastructure for a pumped drainage system in the Prison Tower. The latter requires a new service trench across the Lower Ward with associated inspection pits. The King's Gate forms an integral part of the internationally important Edwardian Castle, which was designated a Grade I Listed Building in 1983 (3814). The castle is also afforded statutory protection as Scheduled Monument (CN079) and, in 1986, was designated as part of the Castles and Town Walls of King Edward in the Gwynedd World Heritage Site.

This report sets out the results obtained from two phases of archaeological evaluation that were carried out to assess the potential impact of the proposed development on below-ground archaeological remains, including those beneath the floor of the West Tower and the Prison Tower, part of the moat immediately to the north of the castle curtain wall, and in the Lower Ward. The initial phase of evaluation comprised the excavation of three trenches, which was carried out in January 2019, whilst the second phase of work was undertaken in April 2019 and involved the excavation of seven test pits along the proposed route of the new service trench across the Lower Ward.

Based on the results obtained from the archaeological evaluation, the proposed insertion of a lift shaft in the West Tower will have limited impact on archaeological remains. The stratigraphic sequence revealed in the trench placed in the moat was similarly simple, and whilst some physical evidence for medieval activity survives in surviving lenses of material, any harm of installing a drainage pump could be offset by an appropriate level of archaeological mitigation. In both locations, any harm to the below-ground archaeological resource can be offset by maintaining an archaeological presence during any further ground-breaking works.

The archaeological remains immediately below the modern floor in the Prison Tower, however, are of greater significance, and comprise a series of structural elements that seemingly span the initial phase of the castle's construction through to the post-medieval period. The importance of these remains, and their associated stratigraphic sequence, merits preservation *in-situ* and will require consideration of an engineered solution to installing the new drainage system.

The archaeological results of the test pits placed in the Lower Ward were somewhat varied, but demonstrated that some archaeological layers were present, particularly towards the western part of the area investigated, where structural and stratified medieval and post-medieval remains were identified. However, these remains are not of such significance that would necessarily merit their preservation *in-situ*, and the harm from installing a new service trench across the Lower Ward could be offset by appropriate archaeological mitigation.

1. Introduction

1.1 Background

Buttress is preparing design proposals to remodel the King's Gate at Caernarfon Castle on behalf of Cadw, with a view to providing enhanced access and visitor facilities within the structure. The proposals allow for the removal of modern fittings and partitions within the towers of the King's Gate, and the insertion of new fabric and infrastructure, including a new lift in the West Tower and a new service trench across the Lower Ward. The King's Gate forms an integral part of the internationally important Edwardian Castle, which was designated a Grade I Listed Building in 1983 (3814). The castle is also afforded statutory protection as Scheduled Monument (CN079), and in 1986, was designated as part of the Castles and Town Walls of King Edward in the Gwynedd World Heritage Site.

In January 2019, Salford Archaeology was commissioned by Buttress to conduct an initial phase of archaeological evaluation to inform the emerging design proposals. The evaluation was carried out in accordance with a Written Scheme of Investigation (WSI) produced by Salford Archaeology in December 2018, and comprised the excavation of three trenches. This aimed to establish the character, date, extent and significance of any archaeological remains beneath the existing ground surface in the West Tower and the Prison Tower of the King's Gate, together with part of the moat immediately to the north of the castle curtain wall in the proposed position of a pump for the new drainage system. The work was carried out in strict accordance with the conditions attached to Scheduled Monument Consent.

Following this initial phase of work, a second phase of archaeological evaluation was implemented to establish the significance of any archaeological remains in the Lower Ward that may be damaged by the proposed installation of a new service trench that is required to serve a new pop-up café. This phase of evaluation comprised the excavation of seven trial pits that were placed along the proposed route of the new service trench in accordance with an updated Written Scheme of Investigation (*Appendix 2*) that was devised in consultation with Cadw. This phase of work was carried out in April 2019.

1.2 Aims and Objectives

The primary objective of the evaluation was to provide an assessment of the archaeological resource that survived beneath the internal floors of the towers comprising the King's Gate and the Lower Ward. A number of objectives were outlined at the onset of the project:

- to record, as far as is reasonably possible, the location, extent, condition, significance and quality of any surviving archaeological remains observed;
- to record a sufficient sample of the features to adequately characterise the nature of the surviving archaeology and date significant features;
- to establish the character of the northern moat, and position of the proposed drain outlet;
- to establish whether there is any physical evidence for post-medieval activity,
- to provide sufficient information to enable an informed decision to be made about the need for any additional archaeological mitigation; and
- to make available the results of the work.

1.3 Setting

Caernarfon Castle sits on a slight ridge on the northern bank of mouth of the River Seoint, at its entry into the Menai Strait (Plate 1). The castle takes the form of a long and narrow enclosure within a single ring-wall with a polygonal tower at every angle. The castle is located on the southern edge of the historic walled town, which lies in the western part of the enlarged modern town. The area of investigation was focused on the King's Gate and the Lower Ward (centred on NGR 247796 362683), which lies in the northern part of the castle grounds (Plate 1).

The bedrock is exposed beneath the south curtain wall externally, and comprises steeply dipping, fissile, black, micaceous mudstones of the Ogwen Group of the Ordovician period (443-488 million years) (Lott 2010).

The natural topography of the area has been altered significantly since antiquity and arguably involved intense modification during the construction of the castle and former motte. The subsequent periods witnessed lesser changes to the monument. The infilling of the northern defenses and subsequent excavation and maintenance work carried out in the 19th and 20th centuries perhaps represent the most drastic changes, which evidently necessitated some ground disturbance across the Lower Ward.



Plate 1: Recent aerial view across Caernarfon Castle, with arrow marking the King's Gate

2. Historical Background

2.1 Contextual Background

On 17 November 1276, King Edward I of England declared Llywelyn ap Gruffudd, prince of Gwynedd, 'as a rebel and a disturber of his peace' (Taylor 1963), announcing the start of a military campaign that would span over 50 years, and include a programme of unprecedented castle building around the coastline of North Wales. A key strategic element in the citing of each of the eight new major castles was the ability to be supplied by sea, making them less vulnerable to siege.

The first castles were erected at Flint and Rhuddlan in 1277, with an existing castle at Builth being refortified, and the earlier castle at Aberystwyth being replaced with a new structure in the same year. A second campaign of 1282-3 incorporated a second phase of new castles, on a much greater scale, comprising those at Conwy, Caernarfon, and Harlech, all with accompanying towns, which, with the exception of Harlech, were heavily walled. Following an uprising led by Madog ap Llywelyn in 1294/5, Edward's final castle was begun in the highly strategic position of Beaumaris, on the western side of the Menai Straight, controlling the shipping channel and the fertile agricultural lands on Angelsey, which had been used to supply the rebels on the mainland.

The design of the castles has been attributed to Master James of St George, who was a master mason working in the mid-13th century, on castles in the Savoy region of Western Europe, comprising land on modern-day France, Italy, and Switzerland. Edward I probably met James whilst returning from a crusade through Savoy in 1273, to meet Count Philip I of Savoy (Taylor 1953). Master James was referred to in a document of April 1278, describing him as "ad ordinandum opera castorum ibidem" interpreted by Arnold Taylor as 'the Mason charged with the design, technical direction and management of the works underway in Wales' (Taylor 1950). He was also recorded as Flint and 'Rothelan' (Rhuddlan) (ibid), with Flint being a very similar concept to Master James' earlier castle at Yverdon-les-Bains, Switzerland (Dean 2009).

More recent studies however, suggest that James of St George's role may not have been as significant as previously suggested (Coldstream 2003; Coldstream 2010; Turner 2010), and whilst he may have been involved in the broad outline arrangement of the site plan, the design and implementation of the individual structures within the castle was almost certainly undertaken by others within the King's Works.

2.2 Caernarfon Castle

Much can be established about the detail of the construction of the castle from historic pipe rolls (published in the Bulletin of the Board of Celtic Studies). Ditching began in the summer of 1283 with the town ditch 'mota; fossatum ville' (RCHAMW 1960). Expenditure in 1284-5 appears to relate to stonework for the town walls, although some may have been used as part of the foundation circuit of the castle. Work on masonry and carpentry for the castle is documented for the following years, peaking in the early period of 1285-7, and ceasing completely in 1292, as at the other royal castles of North Wales (BBCS 1950-2).

The town and partially-built castle were damaged by Madog ap Llywelyn in 1294, by which time it was said to have been 'put up at very great expense already' (Hamilton 1849). The rebellion was quashed in the spring of 1295, with work resuming in earnest on 5th June, with over 500 men being employed on the castle 'and elsewhere' by the end of the month (Edwards 1946, 71). The town wall was reported as being fully restored by 10th September, after which all resources were devoted to the castle, apart from completing several new buildings, possibly for the justiciary (*op cit*, 79; BBCS 1952-4, 132f). An instruction by the King that the castle was to be in a state of defence by November 1295 (BBCS 1952-4, 61f), suggests that the south curtain wall was at least as high as the town wall by this date. However, in a note of 25 February 1296, he was reminded that part of the castle was still only begun: 'on a wall begun circa motam castri were four towers also only begun, and that wall, 15 ft. thick and 18 perches long, stood 12 ft. high for 8 perches and 24 ft. high for 10 perches' (Edwards 1946, 80; BBCS 1952-4, 63f).

During the seasons 1296-9 the rate of expenditure was high again, though less than in 1285-7. In 1299-1301 a new barricade or hoarding was made circa castrum, and the bridge was improved (BBCS 1952-4, 133). There again appears to have been a short hiatus in the construction of the castle, with further work not apparently undertaken until 1304-5, when joist were supplied for the three towers of the southern frontage, and for two new wooden bridges for the castle (Edwards 1946, 48f). In 1316 timber from Llywelyn's Hall at Conway was used to build a storehouse, and timber from another hall at Aberffraw, Anglesey was utilised for repairs (PRO Cal Close R, 1313-18, 267). In 1316-17 a stone eagle was set atop the Eagle Tower, which had been 'made anew' (Peers 1917, 41), suggesting that the upper storey had been completed, and roofs on other towers were being leaded (*op cit*, 46f). Expenditure on the castle as a whole slowed after 1317, although what work did continue appears to have included construction on the King's Gate, where the statue of Edward II was placed above the gate in 1320, and timber was bought for roofing the hall over the gate (*op cit*, 17f; Edwards 1946, 50).

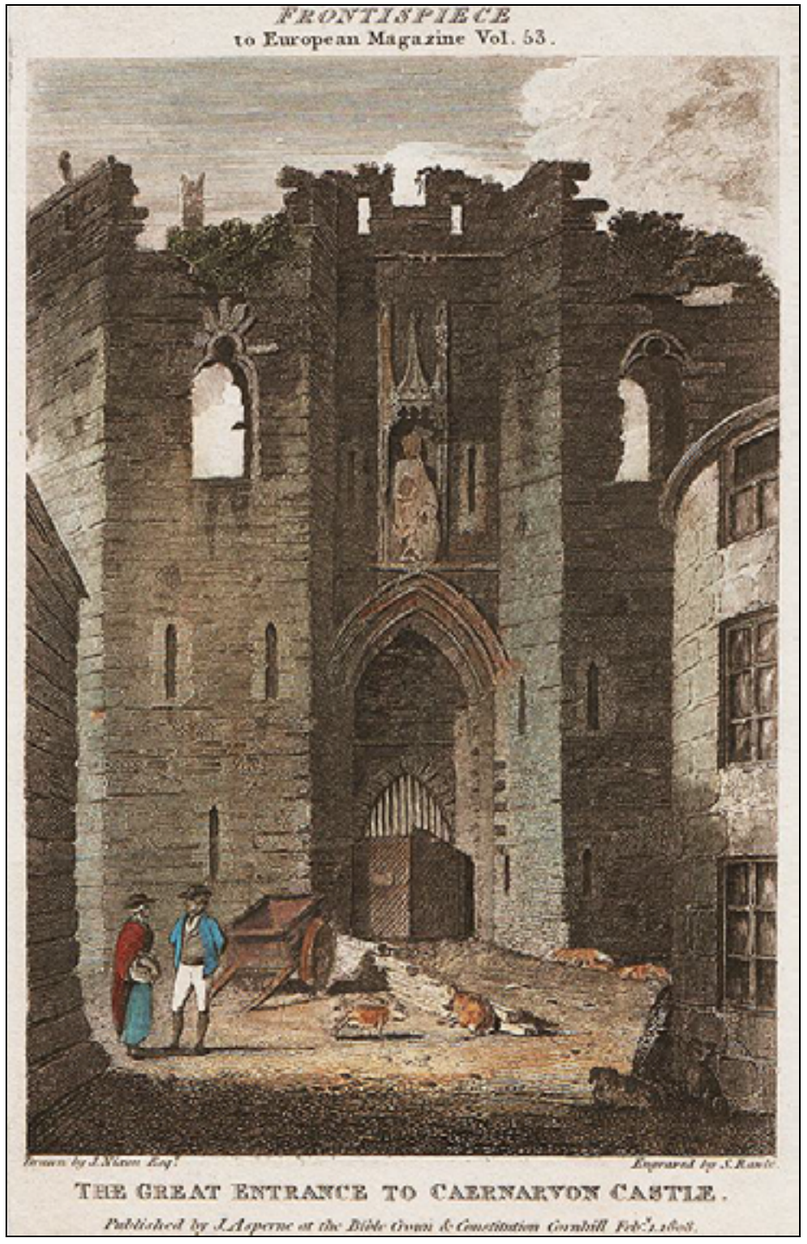


Plate 2: Artistic representation of the King's Gate c.1808

Work on the castle certainly continued to 1326, when a granary was erected (PRO Cal Close R, 1323-7, 445, 451), and may have continued until 1330 (RCHAMW 1960, 125). A survey of 1343 (Peers 1917, 19), stated that the Eagle Tower, Queen's Gate, King's Gate, and a 'tower adjoining the gate' were still unfinished. This appears to signify the final phase of initial construction of Caernarfon Castle, although several repairs and additions are noted in the remainder of the medieval period. In reference to the King's Gate, these notably include reference to work on the windows of the 'Prisonhouses' in 1434-5, and to the 'Black aley' (sic), to the south of the King's Gate, in the early-16th century (Op cit, 23f). The castle became neglected later that century, and by 1595, a survey recorded that the Prison Tower was no longer fit for purpose (*op cit*, 24-6).



Plate 3: Undated photograph, probably c1896 showing Salvins work to the King's Gate (CADW Archives CN079-DOE-1R-02-004696a)

Caernarfon Castle re-assumed a military role during the Civil War of the 17th century, being garrisoned for the king, and besieged and taken on three occasions (RCAHMW 1960). Although the castle escaped slighting by Cromwell, its demolition was ordered by Charles II in 1660 (Anon 1846, 150). However, it was possibly only buildings within the courtyard of the castle that were destroyed, with the majority remaining intact. The castle remained as crown property, although an interest in purchasing the castle was made in 1815 by its constable Henry Paget, Earl of Uxbridge (Avent 2010). A survey and valuation was commissioned, reporting in November of that year that 'the whole castle is in a most ruinous state' (PRO Works 14/9,f.9).

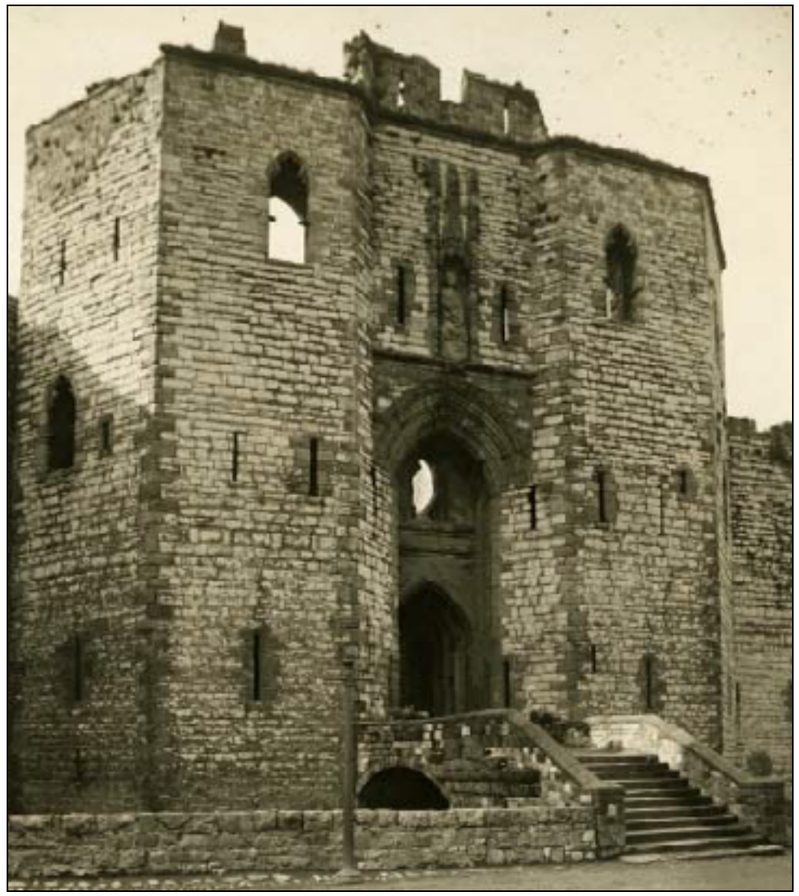


Plate 4: Undated photograph, probably c1896 showing Salvins work to the exterior of the King's Gate (CADW Archives CN079-DOE-1R-02-004696e)

Parts of the castle were used for storing blasting powder, keeping ammunition, as a guardroom for the local militia, and by the harbourmaster, with the possibility of there being a separate occupier within the Eagle Tower (*ibid* f.10). In March of the following year, the Commissioners of Woods, Forests, and Land Revenues decided not to sell the castle (PRO Works 14/10, f.2). In early 1845, following a collapse of masonry at the Queen's Gate, and a further imminent fall of precarious masonry, the commissioners approved emergency repairs, and appointed the architect Anthony Salvin to quote for stabilisation repairs, which he undertook from July of that year until May of 1847 (Avent 2010, 141).

A sketch drawing of the interior of the castle by Salvin shows the King's Gate to be overrun with vegetation, and with significant collapse at the south-western corner of the Prison Tower, whilst the buildings of the south curtain wall appear far better preserved.

Salvin had worked previously at Norwich, Newark, and Carisbrooke castles, and appears to have concentrated his efforts on the consolidation of the exterior, where there was greatest risk to the public (Anon 1864). In the following year Salvin was also commissioned by the then deputy constable, John Morgan, to design new gates for the main entrance (Avent 2010, 142).



Plate 5: Undated photographs taken during Turner's works on the King's Gate (CADW Archives CN079-DOE-1R-02-002603b)

Morgan was replaced as deputy constable in 1870 by Sir Llewelyn Turner, who spent the following 31 years repairing and reconstructing the castle, the work being largely funded from the 4d admission charge for visitors. Turner worked throughout the castle, and it appears that works relating to the two gatehouses formed the final phase of his efforts; the King's Gate being 'seriously taken in hand' from 1896 (Avent 2010, 144), after being captured in a photograph probably taken earlier that year.

Turner died in 1903, and the management of the castle was formally transferred to the Office of Works in 1908. It was undoubtedly Turner's work in restoring towers and battlements, and replacing staircases to enhance public access, that enabled the use of the castle for the investiture of Edward, Prince of Wales, in 1911, to be considered. Photographs taken during preparations for the investiture show the King's Gate following Turner's consolidation work (Plate 6).



Plate 6: Photograph of May 1911, during preparations for the investiture of Prince of Wales

A major episode of repointing was undertaken by the Office of Works, using lime mortar, 'set back from the wall face' (Avent 2010, 148), implying that the work undertaken by Turner may have involved modern cement-based mortar with flush or struck jointing. Later work undertaken by the renamed Ministry of Works mainly improved safe access to the King's Gate, with the addition of railings atop the wall walks around the upper floor, and the replacement of the bridge above the southern side of the chapel, and a new bridge inserted at second-floor level within the west tower in 1953 (RCAHMW 1953).

2.2 Previous Archaeological Work

A limited amount of archaeological investigation has been carried out within the castle walls. In 2013, three small trenches were excavated in the entrance passageway of the King's Gatehouse, ahead of the construction of the present visitors centre (Poucher, 2013). Whilst it appeared the original floor had been removed, a significant levelling deposit, stone surface and metalling survived were tentatively ascribed to the medieval period (*op cit*, 8). These features were exposed at relatively shallow depths between 0.20 and 0.25m below the current ground level.

3. Methodology

3.1 Excavation Methodology

All of the trenches and test pits were excavated manually and subject to detailed recorded, in accordance with an approved Written Scheme of Investigation that was prepared by Salford Archaeology in advance of both phases of the evaluation. Spoil was placed next to the excavated trenches and test pits, and backfilled upon completion of the evaluation.

3.2 Recording Methodology

Separate contexts were recorded individually on Salford Archaeology *pro-forma* record sheets. The trenches were located and planned, and levels were taken using an automatic level. The metric data collected will be integrated to the existing site survey.

A drawn and photographic record of all relevant phases and features was completed; photography was generated in digital format using a high-resolution digital SLR camera.

All fieldwork and recording of archaeological features, deposits and artefacts was undertaken in accordance with best archaeological practice. All archaeological works carried out by Salford Archaeology was undertaken in accordance with the standards set out in the Code of Conduct of the Chartered Institute for Archaeologists (CIfA).

4. Historic Building Analysis

4.1 Introduction

The following analysis has been drawn from the initial phase of historic building investigation conducted by Salford Archaeology in 2018 (Wild, forthcoming). This provides some context to the areas in which the evaluation trenches were placed. The construction phases of the King's Gate (the West Tower and Prison Tower) as seen in the exterior facades of the building are outlined below. Additional detail on the interior spaces of the West Tower basement and lower level of the Prison Tower are included to contextualise the results of the evaluation. This includes descriptions of the rooms in which the excavation of the evaluation trenches took place.

4.2 Overview

The King's Gate forms the northern entrance into the castle from the walled town, accessed via a drawbridge across a ditch, and placed approximately centrally within the north curtain wall. It is a multi-phase structure, spanning almost 50 years of construction, and even though it was not completed, it represents one of the finest gatehouses in the British Isles.

Two broadly octagonal towers were placed either side of the entrance gateway, rising approximately 26m above the moat, linked above the gateway at what is now second-floor level by a chapel. A rectangular tower placed to the rear of the western octagonal tower was known as the Prison Tower. This formed an integral part of the gatehouse, providing the only extant access to the upper levels, and certainly providing the only historic access to the western part of the upper gate. As with many of the names allocated to the component structures within the castle, the Prison Tower appears to represent a renaming of the original structure.

Each tower is thought to have provided storage at basement level, and although heavily defensive in its nature, the entrance passage appears to have been flanked by large receiving chambers, rather than smaller guardrooms. The first floor comprised a mezzanine overlook to either side of the entrance passage, but latterly included an inserted level within the eastern tower, used for storage for the present visitor shop. The second floor appears to have provided two further rooms of high status, separated by a central chapel, which was most unusually placed on a north/south alignment, to fit within the architecture of the gatehouse. This also housed the headgear of two portcullises, showing a compromise between defence and daily life within the design of the King's Gate.

The upper floor was never completed, but it appears that a large hall, possibly for the constable, was intended for the majority of its western side, whilst still accommodating access to the battlements at its lower status eastern side.

The curtain wall either side of the King's Gate is also a multi-phased structure. The 7'3" (2.21m) thick wall whilst performing a defensive role also incorporates a number of architectural features. Mural passages, hearths, water-pipes and drainage built into the structure relate to the adjoining kitchen block, situated between the King's Gate and Well Tower. The fabric of the King's Gate also retains fabric relating to the consolidation and remodelling interventions from the mid-19th century, which represent an important early example of historic building conservation.

4.3 West Tower

The chronology of the gatehouse can be broken down into four episodes of construction activity beginning in *c* 1283. The West Tower, being integral to the gatehouse structure, displays some of the earliest fabric. It seems little more than the foundations of the tower were completed during the initial construction phase in the 1280s. Following the liberation of the town from the occupation by Welsh forces led by Madog ap Llywelyn in an uprising of 1294-5, the gatehouse was completed to ground-floor level. Occurring in two phases, the first saw the completion of the tower basements and latterly ground-floor rooms. The subsequent phase of construction of the external northern façade of the King's Gate appears to have comprised the raising of the walls by a height of approximately 12' (3.66m), creating a relatively low upper floor within each tower. An additional constructional lift of approximately 16' (4.88m) height extended the second floor to full height and appears to have included the construction of the chapel between the two towers. The upper 17'6" (5.33m) of the northern face beneath the rebuilt battlements is all that was built of an unfinished hall, constructed above the gatehouse.



Plate 7: Basement level of the West Tower of the King's Gate

The apparent lack of physical evidence for access/egress into the tower basement implies this space functioned as a storage area. In absence of permanent stairwells, access was presumably achieved from a trap-door and ladder from the floor above.

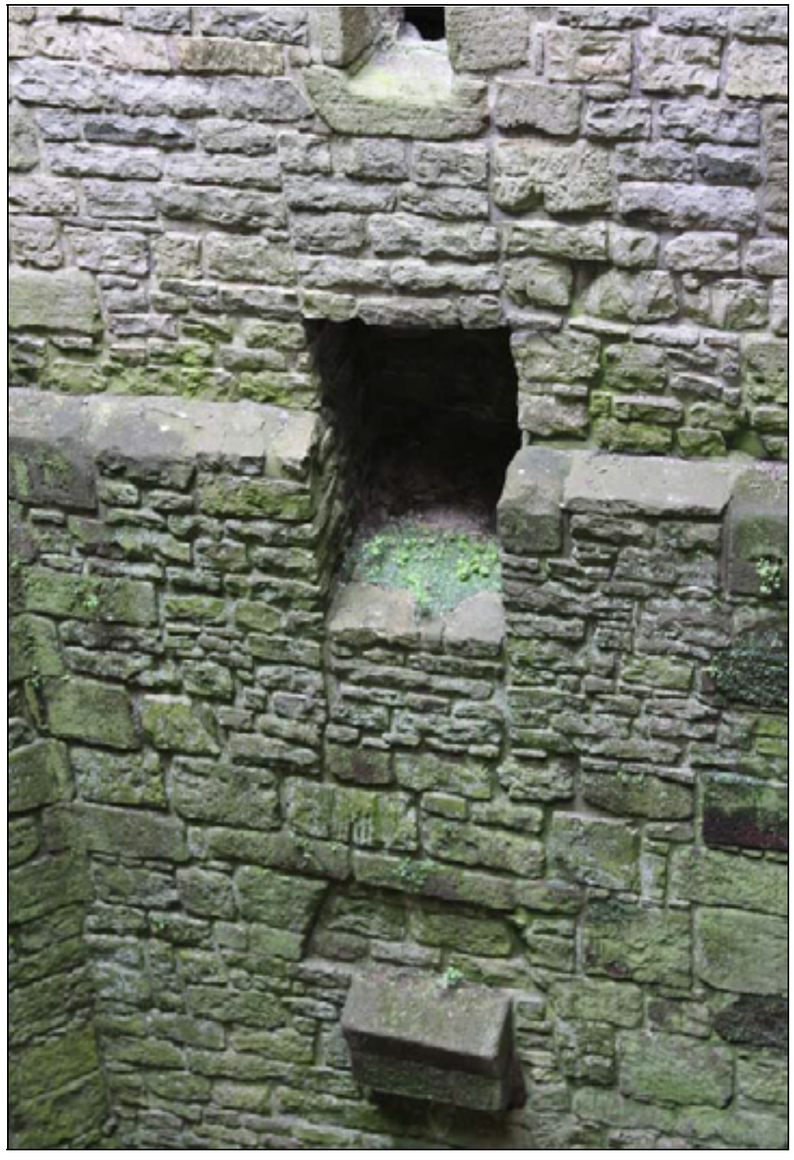


Plate 8: Detail of infilling to beam socket and corbel, north wall

The interior of the West Tower is open from basement level for its full height and is presently unroofed. However, significant evidence for internal staging within the tower survives, and each level is described within the context of the floor levels observed elsewhere within the King's Gate. The tower is of irregular octagonal plan, with walls of up to 10' (3.05m) thickness.

At basement level, the walls are of limestone block construction, with a mixture of sizes, in random rubble construction, but with frequent use of larger sandstone blocks, which also formed stepped quoins to the angled return of each elevation. The north-west wall contained the sole arrow loop within the basement, comprising a plain narrow slit of only 4" (0.10m) width and 3'3" (0.97m) height, and affording a firing line over the moat, but also providing a minimal amount of light into the basement.

Both north and south walls retain two-piece sandstone corbels, comprising a square-faced lower piece, with an angled soffit, whilst the upper stone is of rectangular section, but rotated in the wall face to form an angled springing point, presumably for a brace to the ceiling beam. The northern corbel appears to have been remodelled, set within an aperture that was approximately 6" wider on either side, and infilled with small limestone fillets. Above the corbel, an area of similar width at its base, but with narrowing trapezoidal sides, forms a stone-blocked rebate of 3'5" x 1'6" (1.04 x 0.45m). The sides of this aperture appear to have been worked to form the angled jambs, raising the possibility that it may have originally formed a fireplace hood. The large rectangular ceiling beam socket above also appears to have several courses of blocking at its base, with the straight jambs apparently continuing 21" (0.53m) below the present base of the socket. Both ceiling beams sockets rise significantly above the height of the ground floor offset, suggesting the potential use of large-scantling timbers of approximately 8" (0.20m) section were used as floor joists, and that the elongated void for the ceiling beam would have allowed it to have been sintered following the construction of the wall to a greater height. Three sockets at this level in the south-west wall, each of approximately 1 '6" (0.46m) height and 1'10" (0.56m) width are aligned perpendicular to the main ceiling beam and set only 8 - 12" apart (0.24-0.30m), their close spacing suggesting that housed larger scantling joists carrying something of considerable weight. The west wall has a slightly rebated stone, 3'10" (1.15m) below the offset, which possibly represents an infilled putlog socket, used during the construction of the tower.

Phasing within this level of the tower is complicated by a green lichenous growth over all the stonework. The documentary sources suggest that the first phase of the tower was constructed to only a very low level, which can clearly be seen in the adjacent curtain wall, linking the King's Gate to the Well Tower. Within the internal face of the tower, the level appears slightly higher, and can be identified by the use of dressed sandstone quoins between each elevation in the later stonework above, whereas at the lower level, the smaller limestone blocks are more simply keyed. Within each wall face there is also a predominance of larger dressed sandstone blocks.

The offset that would have housed the floor joists of the ground floor is present on all eight faces of the tower and is relatively uniform in its approximate 11" (0.28m) depth, narrowing slightly at each return, and completely diminishing at the junction of the south and south-west walls. In the south-east wall, placed centrally below a doorway in the passage from the main entrance, a 12" (0.30m) wide void in the offset has a slate base. The slate probably represents an insertion, forming the base of a drain from the passage above, which has a dressed U-shaped channel carved within a sandstone block at its north-western end. There is no extant evidence for access into the basement, either externally or internally, this presumably being afforded by a ladder below a trap door at ground-floor level.



Plate 9: Western elevation of the West Tower and Prison Tower showing the rebated, shallow two-centred arch and portcullis chase (2m scale)

4.4 Prison Tower

As with the remainder of the King's Gate, construction of the Prison Tower was punctuated. The first phase of construction commenced in *c* 1283, occurring concurrently with the foundations of the curtain wall and basement level of the adjoining west tower. The upper extent of the structure forms an additional build to the West Tower that was implemented following the uprising in 1294/5. Further modification to the upper levels of the tower occurred simultaneously to the curtailed hall construction in the upper levels of the gatehouse. The upper part of the Prison Tower also displays signs rebuilding in the mid-19th-century, whilst the lower levels were converted to form the Custodian's Cottage for the castle. During the refurbishment of the gatehouse by Llewellyn Turner in 1896, these later additions including a bitumen roof were removed and the present configuration achieved.

Historically, the lower levels of the tower were used for storage. By the latter half of the 16th century, following a century of neglect, it was recorded that the Prison Tower was no longer fit for purpose. Whilst other areas of the castle were adapted for use in the post-medieval period, the precise use of the tower during this period is largely undocumented. The latest evidence for its use was the repurposing of the building as a Custodian's Cottage and latterly as a storage area.

Through access between the lower and upper wards lay to the south of the Prison Tower via a heavily fortified entrance through the gatehouse often referred to as the 'Black Alley'. The portcullis chases are still visible in the southern façade. Access to the tower itself was similarly well-controlled. Access to the lowest level of the Prison Tower is on its western side, from the Outer Ward, and the inclusion of a stair within was probably intended to provide access directly from the kitchen into the chambers within the gatehouse, and ultimately to the hall intended on its upper floor. It is unclear why its entrance would have required a portcullis, although this may suggest it was intended as a more defensive access between the upper and lower wards in the original design, but was modified during the construction of the tower above. It is improbable that the portcullis had any association with use as a prison.

The main room of the Prison Tower at basement level presently serves as a caretaker's store, and comprises a broadly rectangular room of approximately 17 x 21' (5.18 x 6.41m). It has an angled return in the east wall, creating an alcove of 13" (0.33m) depth for its northern 4' (1.22m). The north wall is of small limestone block construction, built to course, with a possible slightly ragged joint in the wall, 9' (2.74m) from its western side. The upper 2'4" (0.71m) of the wall, below the late 20th-century timber ceiling, has also possibly been rebuilt or represents a secondary phase of construction, comprising more regular coursing of slightly larger blocks.

The east wall is of similar construction to the north wall at its keyed return into the rebate. This has an offset, of similar width to the southward continuation of the wall, but of more ragged construction at its base, narrowing by 5" (0.13m), 2' (0.61m) above floor level, and then by a further 2½" at both 1' (0.30m) and 3' (0.91m) higher up the wall. The angled return on its southern side is of rubbed, large, coarse-grit sandstone blocks, much paler in colour than the wall to the north, as is the remainder of the east wall, which is of mixed limestone and coarse-grit sandstone rough block, built-to-course in its construction. It has a rebate at its upper level, 7'10" (2.39m) above the floor, presumably to carry a wall plate for an earlier ceiling. Its southern return is obscured behind a 4" (0.10m) diameter cast-iron downpipe, but appears to represent a keyed return. At its western end, it has a keyed return to the west wall, which is of more regularly-coursed limestone block and has a rebated offset, presumably for a wall plate. To the north of the doorway, the west wall is of darker limestone, similar to the north wall, with which it has a keyed return. This too has a rebate for a wall plate, but set lower, at only 7'4" (2.24m) above floor level.

The extant ceiling is of late 20th-century date, comprising timber planks. These are carried on three north/south-aligned cast-concrete, stop-chamfered beams of 0.40 x 0.30m section. These have been cut into the north and south wall faces, with the central beam occupying an earlier, wider socket, almost certainly housing a large-scantling timber ceiling beam within the original construction of the basement. That in the north wall has a clear original outline, infilled below the extant beam, which has been placed on a large rough grey coarse-grit sandstone pad below a thin yellowish sandstone fillet. The southern end of the concrete beam includes a 35mm concrete pad, which places the beam onto a two-piece sandstone corbel, which has a concave quarter-round mould at its base and appears to form an original part of the south wall.

The upper part of the north wall has four 12" (0.30m) wide, 6" (0.15m) high rebates to the planked ceiling, possibly representing joist sockets, but these are not matched in the south wall, where a single 3' (0.91m) wide, 6" (0.15m) deep rebate towards the western end suggests that the ground-floor doorway above was originally slightly lower than its present threshold. The wall plate offset at the southern end of the west wall forms the base of an angled pier across the south-west return at ground-floor level above.

The floor is of degraded concrete laid thickest to the middle of the room and probably dates to the early/mid-20th century and has a central sump-drain.

4.5 North Curtain Wall

The early stages of construction were preceded by formation of the northern defences thought to have taken the form of a large east/west-aligned ditch; no physical evidence for the ditch survives. The ditch was infilled subsequently, presumably following the Civil War in the 17th century. The earliest representations of the northern façade from the mid-19th century of the King's Gate and curtain wall reveal made ground level with the road.

The phasing of the curtain wall follows the sequence outlined above. The primary phase saw the completion of the northern walls, although this was only completed to a significant height following the suppression the 1294/5 rebellion.

5. Evaluation Results

5.1 Introduction

The structures, features and deposits identified in the excavated trenches have been ascribed to one of three phases. This phasing is both broad and provisional and will be subject to scrutiny following further work and analysis.

- Phase 1: Medieval
- Phase 2: Post-Medieval
- Phase 3: Modern

5.2 Trench 1

Trench 1 (T1) was situated in the base of the West Tower of the King's Gate. The trench was excavated against the inner wall of the tower. It measured 1.90 x 2.00m and was excavated to the maximum depth of 7.87m (aOD). The trench was successful in exposing the foundations of the eastern wall of the tower, which was built on superficial natural deposit of clayey sand and comprised a rough plinth of mortared rubble.

The lowest stratigraphic unit was the natural geology, which consisted of bands of well-sorted gravels and firm clayey sand. The top of the gravelly deposit was highest at the western edge of the trench and sloped down to the north and east. A window sample was excavated through the natural sandy clay in the eastern part of the trench to reveal a lower band of gravel at a height of approximately 7.40m above Ordnance Datum (aOD). A wider sondage was excavated against the face of the wall, clearly showing the base of the structure.

Immediately above the natural gravels was a thin spread of mortar that had been trampled into the gravel; the mortar spread extended out from the base of the wall. This spread was sealed by a layer of redeposited, clayey sand, which butted up against the western interior wall-face of the tower. A pit was exposed at the base of the trench, cutting through the redeposited sand. The pit was filled by a loose deposit of clayey sand with frequent inclusions of 19th-century glass and pottery fragments. The overlying deposit consisted of further soft - loose clayey sand with moderate refuse inclusions, with a date range spanning the 19th and 20th centuries. The surface of the trench was overlain by a synthetic membrane and gravel.

5.2.1 *Technical Description*

The top of the natural geology, comprising superficial deposits of sandy clay and gravel *(1000)*, was exposed at a height of at 8.44m aOD. Compact gravel deposits were exposed as a ridge along the western edge of the trench; the top of the ridge was relatively flat. The top of the natural gravels declined eastwards, with a gradual break of slope from the top to the slope and gradual break of slope to the lowest level of the surface. The lowest point was along the northern edge of the trench at 7.87m (aOD). The natural gravels were overlain by a firm clayey sand in the southern part of the trench. A hand-dug window sample was excavated through this deposit, which was uniform in colour and sterile, consisting of a firm, light yellowish-brown, clayey sand. This base of the deposit lay at 7.35-7.40m (aOD). Further deposits of compacted gravels were exposed beneath.

A thin spread of trampled mortar *(1005)* was exposed immediately above the lower shelf of gravel in the northern part of the trench. Extending over 1.25 x 1.03m from the foundation of the wall, this formed an ephemeral deposit that was 200mm thick with occasional concretions of gravel and mortar that were 30-35mm in diameter. The surface was uneven following the slope of the undulating, gravel deposit below. The southern extent of the spread had been truncated by the lower levels of a later pit *[1002]*, which cut through the overlying layer *(1004)*.



Plate 10: West-facing elevation of tower wall showing foundation (1006) (1.00m scale)



Plate 11: South-facing section of Trench 1 (1.00m, 0.50m scales)

Contiguous with the mortar layer *(1005)* was the foundation of the tower wall *(1006)*. Two courses of stonework were founded on a plinth of mortared rubble, which extended out beyond the face of the wall (Plate 12). A sondage excavated against the foundation revealed it was constructed above the natural *(1000)*.



Plate 12: Close-up of tower wall foundation (1006) in Trench 1, looking west (0.25m scale)

Stratigraphically above the trampled mortar deposit *(1005)* was a deposit of reworked sand *(1004)* with frequent rounded gravel inclusions. *(1004)* extended across the entirety of the trench and consisted of a loosely compact, yellowish-brown sand; the deposit lay to a depth of 0.38m. A lens of loose grey sand, ash and plated shale fragments existed between *(1005)* and *(1001)* was greater than 0.10m thick. Both deposits abutted the exposed wall face.

A large pit *[1002]* with a sub-round shape in plan had been cut through *(1005)* and the overlying lens of sand, ash and shale in the southern part of the trench. Measuring 1.42 x 1.07m, the pit extended to a depth of 0.35m. It had sloping sides leading to a flat base, at a height of 8.03m aOD. It was filled by *(1003)* a loose to friable, dark greyish-brown silty, clayey sand with occasional, medium-sized, sub-round to angular stones. Finds from the fill included shell, bone, glass bottles, stoneware and pottery of 19th-century origin.

The infilled pit was sealed by a layer *(1001)* of friable, dark brownish-black, silty, clayey sand. *(1001)* extended across the excavation area and abutted the face of the wall. The deposit lay to a depth of 0.45m. It contained a range 19th- and 20th-century ceramics, glass, animal and shell fragments. A sample of the finds was taken to characterise the date and origin of the deposit.

The entirety of the base of the West Tower was covered with a synthetic membrane and thin layer of pea gravel/grit.



Plate 13: During excavation: Trench 1 viewed from overhead walkway, facing south. Note the spread of trampled mortar extending west from the tower wall (1.00m scales)

5.2.2 Summary

The foundations exposed at the base of the West Tower wall and contiguous mortar spread *(1006)* have been interpreted as belonging to the earliest phase of construction, occurring in the 1280s. In absence of any relative dating evidence, it is hard to closely date any of the subsequent layers. Layer *(1004)* may represent an intentional levelling deposit abutting the wall foundation, given the lack of 19th-century inclusions.

Pit *[1002]* almost certainly pre-dates the repairs to the castle in the later 19th century. The overlying layer *(1001)* was more mixed, containing a range of 19th- and 20th-century finds, including mineral water bottles and a souvenir cup. The origin of these artefacts appears to relate to incidental loss rather than intentional dumping within the tower.

5.3 Trench 2

Trench 2 (T2) was placed in the north-west corner of the lower-storey room of the Prison Tower. The trench measured 1.90 x 1.50m and was excavated to the maximum depth of 9.11m aOD. The trench exposed the foundations of the adjoining walls in the corner of the room, and revealed a series of superimposed cobbled surfaces (Plate 14)



Plate 14: General view of Trench 2 showing cobbled surface (2007) and structure (2003) (1.00m scale)

A series of stone structures and superimposed cobbled surfaces were revealed within the trench. On the eastern side of the were the putative remains of an additional wall built above the earliest cobble layer. Abutting the lower levels of the structures at the base of the trench was a sealed deposit of silt interspersed with pockets of sand. This was in turn sealed by series of compact sandy gravel layers composed of small to medium-sized, sub-rounded stones. The entirety of the trench was sealed by in indurated, sand and cement surface, which extended across the room.

5.3.1 *Technical Description*

The earliest stratigraphic unit exposed in Trench 2 was a solid bedding or foundation *(2010)* underlying a cobbled surface *(2007)*. Foundation *(2010)* comprised a crude stone structure, which incorporated both sub-angular rubble and large rounded stones and was bonded with a light grey, sandy lime mortar; a sample of the mortar was retained for future analysis. The southern edge of the structure was visible as a stepped face of masonry in the southern part of the trench, the lower level of which was at a height of 9.10m aOD (Figure 6).



Plate 15: West elevation showing the upstanding wall and foundation (2012) and layer (2011) above cobbled surface (2007) (0.50m scale)

Immediately above *(2010)* was a well-laid cobbled surface *(2007)* formed of small to medium-sized flat cobbles with rounded corners (ranging in size from 0.05 to 0.29m in diameter). The cobbles were bonded with a light greyish-brown, sandy lime mortar with frequent inclusions of charcoal and unslaked lime; a sample was taken of the mortar for future analysis. This formed a flat surface between 10.15 and 10.17m aOD. The southern and western edges of the excavation were formed of lines of larger stones, extending across an area of 1.38 x 1.50m.

Constructed directly on top of the cobbles *(2007)* was a putative wall foundation *(2003)*, which appeared to run west beyond the limit of excavation. *(2003)* measured 1.20 x 1.00m and formed a raised section of masonry extending from the north wall. *(2003)* was constructed of sub-rounded stones ranging from 0.08 to 0.32m in diameter. It is noteworthy that the structure was bonded with light greyish-pink mortar identical to the mortar found in the lower levels of the north wall (*2013* and *2014).*

The foundations of the extant walls of the room also rested on the cobbled surface *(2007).* A section of faced stonework in the north wall *(2014)* may represent an element of unrestored 12th-century masonry. Two courses of roughly hewn limestone blocks bonded with a hard, greyish-pink mortar were exposed in the northern elevation of the trench. The size of the stones ranged from 0.24 x 0.05 to 0.18 x 0.04m. The coursed stonework was bonded to three large rounded stones that were in turn bonded to the underlying surface.



Plate 16: Detail of wall foundation (2012) supporting the upstanding west wall of the room

The foundation of the west wall *(2012)* was exposed in the western elevation of the excavation (Plate 16). Two courses of limestone quoins were revealed below the floor level in the south-west corner of the excavation, bottoming out at a height of 10.38m aOD. The coursed stonework was bonded to two large, sub-rounded stones that formed a rough plinth, which stepped out from the wall. Hard greyish-white lime mortar bonded the coursed stonework and rounded stones forming the foundation (Plate 16). The plinth was built atop the cobbled surface *(2007)* and layer *(2008).* An additional line of mortared stones running north/south between *(2012)* and *(2014)* was seen as integral to *(2007)* forming a western edge to the surface. It thus seems probable that layer *(2011)* was introduced as a levelling deposit beneath the extant wall above the line of stones in the absence of a significant foundation beneath the majority of the wall. The deposit *(2011)* abutted both the corner foundation *(2012)* and lower level of faced stonework *(2014)*; no wall cuts were observed.

A rubble deposit *(2011)* was visible in section beneath the western elevation of the wall *(2016)*. *(2011)* consisted of a layer of light yellowish-brown/reddish-brown sand with frequent stone inclusions. The compaction of the *(2011)* varied from loose to friable. The layer appeared to be deposited above the westernmost extent of *(2007)*, which was formed of a line of large rounded stones bonded with a light greyish-pink sandy lime mortar. *(2011)* had been deposited against the face of the north wall *(2014)* and against the foundation *(2012)*. *(2011)* was similar in composition to *(2008)*.



Plate 17: Northern elevation showing the wall foundation and adjoining wall (2003)



Plate 18: Detail of faced stonework (2014) visible beneath face of north wall, looking north

The upstanding masonry forming the west wall *(2016)* was more or less fully visible prior to excavation; only the foundation *(2012)* and lower course were obscured by the modern ground surface. Wall *(2016)* was made up of uncoursed, squared, limestone blocks bonded with a hard, white lime mortar. This had been re-pointed with a cement-based mortar with frequent, small stone inclusions. The repointing made it hard to determine the relationship with the upper face of the north wall *(2013)*; the walls appeared to be keyed-in. The lowest course of wall *(2016)* rested on the top of *(2011)*, interpreted as a levelling layer.

The north wall *(2013)* had been constructed and repointed in the same fashion as wall *(2016)*. The upper courses of north wall *(2013)* had been constructed atop foundations *(2014)* and *(2015)*. It is noteworthy that the finish of the masonry in the walls adjacent to the evaluation trench was very different to the southern wall of the room, which incorporated larger blocks of fair-faced stone.

A series of layers to the south of *(2010)* and *(2007)* were abutting the structures and post-dated their construction (Figure 6). The earliest deposit *(2009)* consisted of soft, humic silt interspersed with pockets of fine, sterile sand. This layer extended to a thickness of 0.11m and was exposed across an area of 1.50 x 0.15m.



Plate 19: West-facing section of Trench 2 showing build-up of layers (2009), (2008), (2002) and (2001) against the structural remains (0.50m scale)

Stratigraphically above *(2009)* was *(2008)*, a compact layer of light yellowish-brown/reddish-brown sand with inclusions of poorly sorted, sub-angular to sub-rounded stones. This was deposited to a thickness of 0.48m over an area of 0.92 x 1.50m. Layer *(2008)* effectively sealed the southern extent of the cobbled surface (*2007)* and underlying bedding *(2010)*. It is noteworthy that *(2008)* butted up against the face of *(2003)*. Layer *(2002)* and foundation *(2012)* were stratigraphically above layer *(2008)*.

Layer (*2002*) consisted primarily of compacted sand with frequent inclusions of small to medium-sized, sub-angular to sub-rounded stones and degraded fragments of mortar. This deposit was deposited unevenly across the trench, thinning out to less than 20-30mm above *(2003)*; the deposit was notably different from the material found beneath the western wall, which did not contain the same degraded mortar fragments. Layer *(2002)* may have served as a levelling deposit and was contiguous with the rough cobbled surface *(2004)* and underlying make-up *(2006)*, which were laid above the earlier surface *(2007)*.

A later cobbled floor *(2004)* had been constructed around *(2003)*; the surface was composed of large hewn blocks with flat surfaces and rounded stones (Plate 20). The make-up below the surface *(2006)* was composed of large angular stones bonded with hard, pinkish-grey lime mortar. The surface and make-up survived to a thickness of 0.22 – 0.27m. It is probable that the surface represents a raising of the floor surface in this area, perhaps in the post-medieval period. The surface lay 15mm below the lowest course of stonework in wall *(2016)*.



Plate 20: Cobbled surface (2004) looking north-north-east

The entirety of the trench was overlain with a hardened floor surface *(2001)*, comprising laminations of dark greyish-brown and blackish-brown, sand and cement. This was modern in origin.

5.3.2 Summary

The sequence of structures and deposits exposed in the north-west corner of the basement room in the Prison Tower can be dated by their association to the extant structure and interior elevations. The phasing for the lower level of the tower has been demonstrated to belong to construction activity in the 1280s.

Accordingly, the stone surface *(2007)* and underlying make-up *(2010)* that underlie the north wall can be seen to predate the upstanding structure. Whilst it is possible for these elements to derive from an earlier phase of activity, it seems more likely they were built simultaneously with the lower walls of the Prison Tower. The well-formed southern and western edges of the surface, delineated by a line of larger cobbles and stones supports this notion. The exact function of a surface at this given level below the wall foundation is still unclear; the necessity for a firm base during construction strongly suggests that it both functioned as a building platform for the structure above and a working surface. This is supported by the finish of the surface and concerted effort to create a pitched stone surface.

A putative wall foundation *(2003)* was defined above the surface *(2007)*. This structure abutted the rubble foundation of the north wall *(2015)*, which was exposed below current floor level. The mortar used in the construction of *(2003)* was identical to that exposed in *(2015)*. This structural feature can therefore also be ascribed to the first phase of activity that commenced in the late 13th century.

A superimposed stone surface *(2004)* constructed above a make-up layer *(2006)* was laid above the earlier surface, perhaps acting to raise the working level of the room. The finish of the surface was less uniform and more haphazard in character. The choice of stones was dominated by a light, yellowish-grey cobble though several large limestone blocks were also utilised; the stones were bonded with a hard, light grey lime-based mortar. Appearing to abut the denuded structural remains *(2003)* on both sides, this structure was seen to derive from a later phase of activity, though no firm date can be ascribed.

The origin of the deposits encountered at the southern end of the trench is also unclear. These consisted of three layers deposited against the structural remains: *(2009), (2008)* and *(2002)*. The humic, silty deposit *(2009)* encountered at the base of the trench was sterile and contained no inclusions. The overlying deposits *(2008)* and *(2002)* however were clearly anthropogenic in origin and had been compacted to a degree that suggests levelling. A similar layer *(2011)* was deposited beneath the west wall. The inclusions of mortar and stone fragments within the layer may derive from degraded wall material.

The entirety of the trench was overlain by a modern make-up *(2001)*, which extended across the footprint of the room and included a patch of degraded sand and cement layers, which are modern in origin.

5.4 Trench 3

Trench 3 (T3) was situated in the moat, immediately north of the curtain wall to the west of the King's Gate. The trench was placed below the blocked aperture of a drain outlet in the wall, which was originally fed from the kitchen block. Measuring 1.50 x 1.50m, the trench was excavated to the level of the bedrock. Due to the confined nature of the trench and reduced stability of the sections, the trench was stepped to allow safe access and egress. A narrow sondage was excavated along the eastern edge of the trench, exposing the top of the natural shale-mudstone bedrock. The western half of the trench was stepped to allow safe access and egress into the trench.

A sloping stone plinth or 'glacis' was built above the bedrock and formed the foundation of the upstanding curtain wall (Plate 21). Abutting the plinth and lower courses of the wall were a series of deposits, including possible silting, a sand and mortar layer and subsequent levelling.



Plate 21: General view of Trench 3 looking south-east (1.00m scale)

5.4.1 Technical Description

Natural bedrock *(3000)* comprising a weak, fissile, mid-bluish grey, shaley mudstone was exposed at the base of the trench at approximately 2.05m aOD. Due to the restrictive nature of the excavation it could not be ascertained whether the top of the bedrock had been modified in any way.

Immediately above the shale-mudstone was a firm deposit of *(3004)* light yellowish-brown, sandy clay with frequent gravel inclusions. Void of anthropogenic material, it seems likely that *(3004)* represents the slippage of natural material (such as the glacial till revealed in Trench 1) into the moat. Deposit *(3004)* extended across the base of the trench as a 250mm band visible in the west-facing section (Plate 22).



Plate 22: West-facing section of Trench 3 prior to window sample excavation (1.00m scale)

Above *(3004)* was a friable, coarse sand and gravel layer *(3003)*, which had a maximum thickness of 260mm. This layer abutted the sloping plinth *(3005)*. Frequent inclusions of mortar were visible within the layer, which suggest this material derives from a construction or reparation event. This was sealed by layer *(3001)*.

The overlying layer *(3001)* comprised a soft, mid-brownish-grey sandy clay with frequent inclusions of sandstone and brick rubble. Layer *(3001)* was deposited against the lower courses of stonework of the castle wall and foundation plinth. It contained a mixture of modern and post-medieval ceramics and one sherd of residual medieval pottery. A silty, humic lens within the layer could be indicative of standing water. The entire layer was deposited to a thickness of 1.05m.

The western half of the trench was only excavated to a depth of 0.80m, at which point it was stepped to allow access to the eastern half. 0.95m below ground level, and stratigraphically below *(3001)*, was a rubble layer *(3002)*, composed of large angular to sub-rounded sandstone and limestone blocks. *(3002)* abutted the lower courses of the stone plinth and extended to a depth of 1.50m below ground level. The nature of the layer suggests it represented deliberate backfilling of post-medieval or later date.

5.4.2 Summary

The sloping plinth at the base of the castle wall replicates the more prominent, flared glacis that is visible at the foot of the southern and eastern curtain walls. The foundation on the north side of the castle consisted of three courses of well-dressed stonework; the squared blocks were bonded with a hard, light yellowish white sandy lime mortar. The overlying courses of limestone forming the curtain wall were rougher and more visibly weathered than the foundation courses. No apparent signs of modification relating to the cut of the former ditch or moat could be defined at the base of the trench, which was precluded by the size of the trench.



Plate 23: West-facing section of Trench 3 looking east following window sample excavation (1.00m scale)

The layer exposed immediately above the natural bedrock, however, could potentially represent an early deposition event such as primary in-wash of sand and clay, derivative of the superficial natural. This was the earliest stratigraphic unit, which post-dates the construction of the stone foundation of the curtain wall. This was in turn sealed by a band of lighter, grey sand *(3003)* flecked with mortar. This latter deposit was deposited against the face of the plinth, contiguous with a concretion of mortar on the stonework, implying the layer was deposited during the construction of the upstanding wall, prior to the accumulation of later dump deposits.

The overlying deposits *(3002)* and *(3001)* almost certainly derive from intentional dumping and levelling. Deposit *(3002)* was composed entirely of compacted rubble, which may derive from the castle walls. Inclusions of ceramic building material, pottery and glass within *(3001)* point towards a late date, though there is a possibility this accumulation occurred over a protracted period of time. A lens of humic silty, clay found midway in the section is perhaps indicative of impeded drainage. The material found above and below was nonetheless identical. These later deposits have been ascribed to the post-medieval/modern periods on the basis of their inclusions.

5.5 Test Pit Results

5.5.1 Introduction

After the initial trenches had been excavated in January 2019, a second phase of evaluation was required across the Lower Ward to inform revised proposals for a new drainage system. In the first instance, six test pits were laid out across the courtyard, along the proposed route of the new service trench, and were excavated to a depth of 1m below the modern ground surface. After further consultation with Cadw, a further test pit was added to the scope of works, and was placed primarily to investigate whether a single wall which was visible as an above-ground feature continued across the proposed route of the new service trench. In addition, two of the test pits were joined together to better understand the relationship between the two, and to investigate the accuracy of the partially-reconstructed above-ground wall-features.

5.6 Test Pit 1

Test Pit 1 was targeted on an area where the proposed drainage run will need to turn corners (with rodding eyes), as well as steps being removed from the path and adjustments to levels. The test pit was located immediately to the south of the Well Tower (adjacent to the and to staircase that leads to the well) and to the south-west of the visible remains of what has been interpreted as the kitchen range (Fig 2). Test Pit 1 measured 1 x 1.05m (Fig 7), and was excavated to a maximum depth of 1.05m below the modern ground surface, or 10.96m above Ordnance Datum (aOD).

The modern surface *(101)* comprised large stone blocks that were bonded with a strong mortar or concrete, which required an electrically operated breaker to open up. The surface had a maximum thickness of 0.22m.

Immediately beneath surface *101* was a layer of made-ground *(102)*, comprising dark greyish-brown silt with occasional small stones, both angular and rounded, fragments of slate roof-tiles and two sherds of pottery. This layer had a maximum thickness of 0.32m, and presumably provided a levelling for the overlying modern surface.

Below layer *(102)* was a layer of crude stone cobbling *(103),* covering and area of 0.96 x 0.5m, equating to approximately one third of the test pit along its northern edge. The cobbles were unbonded, with no evidence of any mortar having been used (Plate 24). The stones consisted of rounded and sub-rounded cobbles which on average measured 0.12 x 0.12 x 0.05m. The cobbles had a maximum thickness of 0.09m, and were left unexcavated and *in situ*.

A sondage was placed across the southern half of Test Pit 1 and revealed light-mid brown silty sand-gravel beneath cobbles *103*. This had a maximum thickness of 0.3m, and contained a high frequency of small to medium-sized sub-angular stones. This layer sealed a very compacted layer of mid-reddish-brown sandy gravel *(105)* that had a maximum thickness of 0.07m and contained a high frequency of small sub-rounded and densely-packed stones.

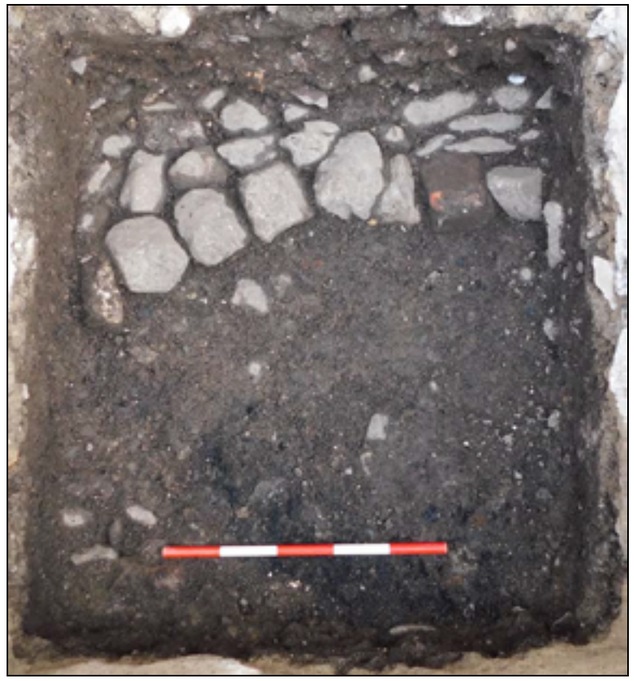


Plate 24: Cobbles 103 (0.5m scale)



Plate 25: Layer 107, at the maximum depth excavated in Test Pit 1 (0.5m scale)

Below the layer *105* was a surface of mid-grey concrete *(106),* which had occasional inclusions of small rounded stones. A section was excavated through concrete *106*, which again necessitated the mechanical breaker to be deployed, and revealed that the surface was 0.13m thick.

Concrete feature *106* sealed light-brown, friable, silty-sand-gravel (*107*), which contained small to large sub-angular stones that each measured up to 0.25 x 0.15 x 0.1m. Layer *107* had a minimum thickness of 0.25m, but was not fully excavated as the test pit had reached the maximum depth necessary, at 1.05m below the modern ground surface (Plate 26).



Plate 26: South-facing section of Test Pit 1 (0.5m scale)

5.7 Test Pit 2

Test Pit 2 was placed in the centre of the Lower Ward at the highest point of the proposed drainage run, where a manhole will be required. It was located to the south of the Well Tower and to the north of the Great Hall at the intersection between the two modern pathways which cross the courtyard (Fig 2). Test Pit 2 measured 0.57 x 0.85m, and was excavated to a maximum depth of 1.05m, or 11.19m aOD (Fig 8).

The existing ground comprised a paved surface of large flagstones *(201)*, which each measured *c* 0.8 x 0.5m in size and were up to 0.07m thick. The flagstones were bonded with a hard, gritty mortar, and were removed by hand and stored for later re-instatement.

A 0.08m thick layer yellow of sand *(202)*, clearly intended as a bedding layer for flagstones 201, was exposed immediately beneath surface *201*. This overlay a 0.28m-thick layer of made ground (*203)*, which consisted of dark brown silt with inclusions of small to-medium-sized rounded and angular stones, identical to *102* in Test Pit 1.

Layer *203* overlay a deposit of mixed rubble *(204),* which had a maximum depth of 0.21m (Plate 27). Layer *204* consisted of dark brown silt with a high frequency of rubble material that included fragments of slate, brick, stones and lumps of mortar, together with residual fragments of post-medieval pottery and animal bone.



Plate 27: Layer 204 (0.5m scale)

Below rubble *204*, in the south-west corner of the test pit, was a layer of soft, white-grey mortar *(205)*, which had a maximum thickness of 0.11m. This appeared to seal a compact layer of gravel *(206)*, which included a high frequency of small sub-rounded stones with an average diameter of 0.05m, together with flecks of charcoal and occasional fragments of white mortar. Though apparent only in section, layer *205* appeared to be at least partially bonded to compacted gravel *206*, which had a maximum thickness of 0.04m.

Below compacted gravel *206* was a layer of mid-brown gravelly-sand *(207)*, which was noticeably less compact. It contained occasional small to medium-sized sub-rounded stones, and had a maximum depth of 0.06m. This overlay another layer of compacted gravel *(209)*, very similar to gravel *206*, consisting of small sub-round stones that were densely packed and compacted. Occasional flecks of charcoal and small fragments of white mortar were also included. Layer *(209)* had a maximum thickness of 0.03m.

Compacted gravel *209* overlay a deposit of less compacted gravelly-sand *(210)*, which was very similar to layer *207*. It contained occasional small to medium-sized sub-round stones and had a maximum thickness of 0.06m. It sealed another deposit of sandy gravel with frequent flecking of mortar *(208)*, which was not excavated (Plate 28). Layer *208* contained compacted small and medium-sized sub-rounded stones with small patches of white mortar and flecks of charcoal.

A steep-sided feature was identified below rubble *204* in the north-west corner of Test Pit 2, and cut through layers *205, 206, 207, 209, 210,* and *208* (Plate 29). The cut measured 0.4 x 0.38m and had near vertical sides and a maximum depth of 0.31m, with the base lying 0.95m below the level of the modern ground surface. The uppermost fill (*212)* consisted of firm sandy gravel that contained small and medium-sized sub-rounded stones and had a maximum thickness of 0.31m. This overlay fill *213*, which consisted of very loose gravel containing small to large sub-rounded stones. It also contained voids.



Plate 28: Layer 208 and feature 212 (0.5m scale)



Plate 29: East-facing section of Test Pit 2 (0.5m scale)

5.8 Test Pit 3

Test Pit 3 was placed to the east of the Eagle Tower and north-west of the Queen's Tower, within the paved pathway that is aligned east-west across the lower ward (Fig 2). It was located in the position of a probable change in direction of the proposed drainage run, and the likely place of a manhole. Test Pit 3 measured 1 x 0.6m, and was excavated to a maximum depth of 0.77m, or to 10.9m aOD. The modern surface comprised flagstones *(301),* which were 0.07m thick.

Below flagstones *301*, was a loose dark grey-brown silty sand layer *(302),* which contained a high frequency of rubble. It also contained a high frequency of sub-angular concrete rubble fragments and occasional fragments of white mortar. A single, defunct, electrical cable was *in-situ* within layer *302*, and was aligned north-east/south-west across the northern of the test pit. The layer had a maximum thickness of 0.19m, and was stratigraphically above dark brown, loose, sandy silt *(303),* which contained occasional small sub-rounded stones and fragments of slate. Layer *302* had a maximum thickness of 0.32m.

Deposit *303* overlay a layer of dark yellow-brown sandy silt *(304)*, which contained occasional small sub-round stones. It had a maximum thickness of 0.32m, and sealed a compacted light brownish-white surface of mortar and gravel *(305),* which contained occasional small fragments of slate and frequent sub-round stones (Plate 30). This surface had a maximum thickness of 0.05m.

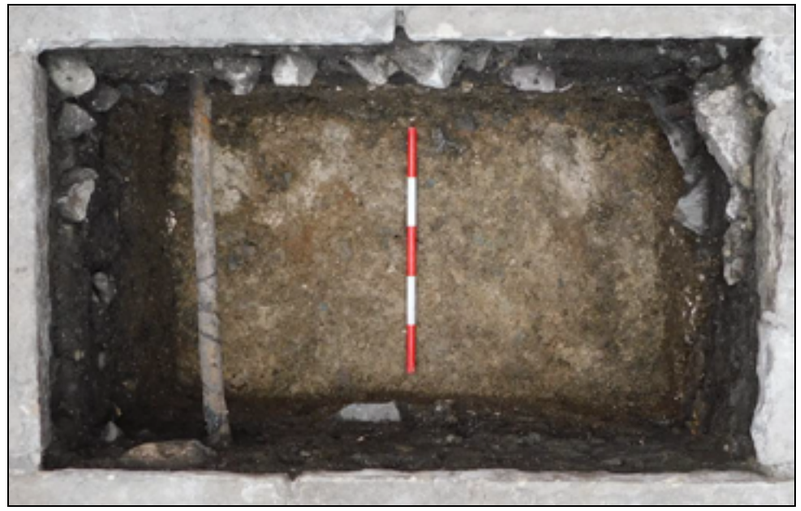


Plate 30: Mortar-gravel surface 305 (0.5m scale)

Below surface *305* was a compacted mid-brown silty sand deposit *(306)*. This contained a high frequency of angular and sub-angular stones, and had a maximum thickness of 0.14m. Layer *306* overlay a stone and mortar surface *(307)*, which was exposed at a depth 0.75m below the modern ground surface, or 10.92m aOD (Fig 9). It consisted of a partially flagged stone surface set within a yellow sandy-lime mortar. The component flagstones, whilst flat, were irregularly shaped; the largest flagstone measured up to 0.45 x 0.28m. Along the northern edge of the test pit were several cobble-type stones, which had an average diameter of 0.1m. At this northern end of the surface *307* was an orange and dark grey discolouration to the mortar, which may have been indicative of *in-situ* burning (Plates 31-33). Due to its probable early date and potential significance, the entirety of surface *307* was left *in-situ*.



Plate 31: Stone and mortar surface 307, looking north (0.5m scale)



Plate 32: Surface 307 (0.5m scale)



Plate 33: West-facing section of Test Pit 3 (1m scale)

5.9 Test Pit 4-5

Test Pit 4-5 was intended originally as two separate test pits. Test Pit 4 was located to the east of the entrance the Eagle Tower at the north-east corner of the gravelled area. It was targeted on the projected line of a wall foundation, suggested by the current delineation of a gravelled and low-walled area in the Lower Ward. Test Pit 5 was located to the north-west of the Queen's Tower and to the south-east of the Eagle Tower, immediately to the south of the entrance leading to the lower floor of the Eagle Tower (Fig 2).

After consultation with Cadw it was decided to extend these two test pits into a single trench to better understand stone surface *503*, a possible wall cut *[412]*, and how the archaeological remains related to the above-ground reconstructed walls and gravelled area (Plates 34 and 35).



Plate 34: Stone surface 503 (0.5m scale)



Plate 35: Pre-excavation shot of cut 412 with the structural remains of 503 in the top left, looking south-west (1m scale)

The modern surface overlying Test Pit 4-5 were yellow sandy gravels *(401* and *501)*, which had a maximum thickness of 0.13m. At the south-western end of Test Pit 4-5, immediately below the contemporary ground surface was a loose, dark brown, sandy silt *(502)*. Layer *502* was 0.32m thick, and contained occasional angular and sub-angular stones that measured between 0.03 and 0.17m in diameter, together with fragments of slate roofing tile and residual post-medieval pottery with a date range spanning the 16th to 18th centuries.

Immediately below layer *502* was a stone and mortar structure *(503)*, which consisted of flat sub-angular flagstones and smaller sub-angular stones that probably represented a floor. The largest flagstones measured 0.45 x 0.4m, but were very degraded in parts. They were bonded with a light brown sandy mortar *(411)*, with also contained some fragments of slate. Stone-surface *503* was exposed at a depth of 0.44m below the modern ground surface, but was not excavated and was left *in-situ.*

At the eastern end of Test Pit 4-5, immediately below modern surface *401,* was a very compact dark brown sandy-silt layer or possible surface *(402),* which was exposed at a depth of 0.05m. This layer contained occasional small sub-round stones, and had a maximum depth of 0.24m. This overlay a compacted layer of light brown gravelly-mortar *(406)*, which had a maximum thickness of 0.05m.

Below the layer / surface *406* was a dark brown sandy-silt layer *(407),* which appeared similar to layer *(402)*. It had a maximum thickness of 0.4m and extended from feature *412* to the northern limit of excavation.

At the north-western end of Test Pit 4-5, below layer *407*, was a cobble surface / rubble layer *(408)*, which had a maximum thickness of 0.1m. Layer *408* largely comprised medium-sized sub-rounded stones with a maximum diameter of 0.11m. It also contained occasional fragments of slate and brick, together with small and medium-sized sub-angular stones. The stones was roughly placed, forming an irregular surface that showed no evidence of bonding material.

Below the rubble *408* was a layer of mid-brown clayey silt *(410),* which also contained occasional small sub-rounded stones and patches of mid-orange clay. Layer *410* had a maximum thickness of 0.15m and was located at a depth of 0.23m below the modern ground level.

Layer *410* overlay a mortared stone surface *(409)*, which was exposed at a depth of 0.28m at the north-eastern end of Test Pit 4-5. It had a maximum thickness of 0.1m and covered a maximum area of 0.8 x 1.8m. It was composed primarily of compact, light-brown mortar that had inclusions of gravel / small sub-rounded stones, and charcoal. At its northern-most end were three flat, sub-angular stones, the largest and most complete of which measured 0.22 x 0.2 x 0.07m (Plate 36). The northern part of this surface was left *in situ*, while a less well-preserved area at its southern end was excavated to better understand the stratigraphy.



Plate 36: Surface 409, looking north-east (0.5m scale)

Stratigraphically below feature *409* was a gravel/cobble surface *(416)* that was found at a depth of 0.41m below the modern ground surface, and had a maximum thickness of 0.4m. Layer *416* extended from cut *412* to the laid stones of feature *409,* which covered a maximum area 3.1 x 1m. The upper part of layer *416* consisted of compacted, medium-sized sub-rounded and sub-angular stones, which had a maximum diameter of 0.1m and were. The lower part was less compact, and included large rounded and sub-rounded stones, the largest of which had a diameter of 0.39 x 0.25 x 0.22m, together with a fragment of medieval pottery.

Though there was little evidence of any form of bonding amongst the cobbles, *416* appeared to be laid above the same light brown sandy-gravel mortar *411* that also bedded a more substantial surface *(503).* Layer *411* closely reflected the remains of cobbles *416* and stone surface *503* and covered an area of 3.8 x 1m. It had a maximum thickness of 0.16m.

Immediately below the layer *411* was a mid-yellow-orange-brown clayey-sand *(414).* This contained a high frequency of small crushed shell, occasional flecks of charcoal and small rounded stones, up to 0.06m in diameter. An abraded sherd of pottery of probable Roman date was also recovered from layer *414*. This layer had a maximum visible thickness of 0.39m, and was found at a depth of 0.68m. At the north-eastern end of Test Pit 4-5, a sondage was excavated to a depth of 1.05m, or 10.53m aOD, although layer *414* continued beyond the level of excavation.



Plate 37: Layer 415, looking north-east (0.5m scale)

However, in the centre of Test Pit 4-5, A further layer *(415)* was visible below clayey-sand *414.* Layer consisted of a mid-brown-orange sandy-clay which contained a high frequency of charcoal and occasional small sub-rounded stones (Plate 37). It was exposed at a depth of 0.85m. The sondage was excavated to a depth of 1m, or 10.72m aOD, although the base of layer *415* was not reached.

Several cuts were identified in Test Pit 4-5. In the north-west corner of the trench, a moderately sloped and flat-based cut *[403]* was recorded. This extended to a maximum depth of 0.48m, and cut through layers *402, 406, 407, 408,* and *410.* The cut was aligned east/west, and was probably a service trench. It was filled by *404,* a rubber-encased service pipe as well as a redeposited backfill *(405).* Fill *405* consisted of a dark brown sandy silt, which also contained occasional brick fragments.

In the north-eastern corner of Test Pit 4-5 was a further feature *[417],* which was filled solely by *418.* Cut *417* was steep-sided and due to its proximity to the limit of excavation, was only excavated to a depth of 0.75m. The fill *(418)* consisted of a loose, dark brown loam.



Plate 38: Excavated linear feature 412, looking east (0.5m scale)

The most significant feature within Test Pit 4-5 was *412*, a linear feature with steeply-sloped sides that may have been a wall foundation trench or a robber trench (Plates 38 and 39). It was located at the south-eastern end of the trench, aligned east/west, and was cut through layers *502, 407, 416, 503,* and *411*. The feature was excavated to a depth of 1m below the modern ground surface, at 10.71m aOD. It was filled by *413*, which consisted of a mid-to dark brown sandy silt which had of occasional small sub-round stones inclusions and larger rubble-like sub-angular stones.

The precise relationship between the feature *412* and the *503, 411,* and *416* may have been somewhat more complicated as it appeared in plan that those structural-type remains were broadly respected by the linear feature *412.*



Plate 39: Linear feature 412 during the excavation of the cobbled surface 416, showing layer 411 beneath (0.5m scale)

5.10 Test Pit 6

Test Pit 6 was located immediately to the east of the Eagle Tower, to the south of the toilet block within the flagstone-paved area of the Lower Ward (Fig 2). The test pit measured 0.72 x 0.65m and was excavated to a maximum depth of 0.98m, or 10.57m aOD. The top of the test pit comprised paved surface *601,* which was constructed of rectangular flagstones, up to 0.07m thick.

Below this paved surface was layer *(602),* a dark brownish-grey, friable, sandy-silt. Layer *602* contained small to very large angular stones, some of which had a diameter of up to 0.3m. It also contained fragments of brick, plastic and mortar, together with fragments of post-medieval pottery. Set within layer *602* was an east/west-aligned ceramic drain with a diameter of 0.14m, though there was no evidence of a construction cut. Layer *602* had a maximum depth of 0.68m.

Below layer *602* was a friable, light brown, sandy-silt *(603)* the full depth of which was not established as it continued below the base of the excavated test pit. Layer *603* was distinct from layer *602* as it did not contain the large masonry/stone debris that was found throughout layer *602.*



Plate 40: Test Pit 6 (0.5m scale)

5.11 Test Pit 7

Test Pit 7 was intended to further inform the presence or absence of significant structural remains, and was located to the east of the Eagle Tower, to the south-west of the Well Tower, and to the north-west of the Great Hall (Fig 2). There was some indication that the most westerly wall of the Great Hall may have continued across the Lower Ward, though it currently appears above-ground as a buttress, and the test pit aimed to inform this discussed. The test pit measured 1.34 x 0.7m, and was excavated to a maximum depth of 1.14m, or 10.69m aOD (Plate 41).

The surface of Test Pit 7 was formed by flagstone-paved path *701*, which had a maximum thickness of 0.1m. It consisted of rectangular flagstones, 0.07m thick, set within a 0.05m deep levelling of yellow sand. Immediately beneath paving *701* was a layer of friable, dark grey, sandy-silt *(702).* This layer had inclusions of gravel, small and medium-sized rounded and sub-angular stones. The top of layer *702* was exposed at a depth of 0.35m below the contemporary ground surface.

Levelling *702* sealed was a layer of very dark grey clayey-silt with some gravel *(707).* It contained small to medium-sized stones throughout, small fragments of mortar, as well as several larger sub-angular stones of up to 0.25m in diameter. This overlay a very compacted sandy-gravel-mortar layer *(708),* which was encountered at a depth of 0.61m. Layer *708* had a maximum thickness of 0.05m, and contained small rounded stones.

Immediately below layer *708* was concrete *709,* which was exposed at a depth of 0.66m. Concrete *709* was mid-grey in colour and contained occasional flecks of charcoal. This sealed friable, light brown, silty-sand *710*, which also contained occasional fragments of mortar. Layer *710* minimum thickness of 0.11m, but continued beneath the base of the excavated test pit.

Covering approximately the southern third of Test Pit 7 was a feature *[703]* that cut layers *707, 708, 709,* and *710.* It had near vertical sides and a flat base, that was revealed at a depth of 1.15m. The cut was aligned north-east/south-west, and was filled by a brick structure *(704),* thought to be a soakaway drain. The component walls were single-skinned with three walls in total exposed during the excavation, The structure had a thickness of nine brick courses, cumulatively measuring 0.81m. The individual bricks were mostly frogged, and measured 0.23 x 0.11 x 0.18m, and were bonded with a yellow-white sandy-gritty mortar, although this was mostly above and below the laid courses.

Feature *703* also contained a series of large stones *(706)*, consisting of boulders which measured from 0.1 x 0.08 x 0.06m up to 0.34 x 0.26 x 0.18m in size. All stones were rounded with no significant amounts of any soil resulting in voids. Fill *(705)* was identified between the cut *[703]* and the brick-structure *(704),* and was of the same type of boulder-fill as *706.* Fill *(705)* also contained voids, and was thought to be to increase drainage.



Plate 41: Test Pit 7 (0.5m scale)

6. Finds

6.1 Introduction

The entirety of the finds' assemblage was recovered from Trenches 1 and 3. The mixed assemblages were dominated by 19th and 20th century finds and subsequently are of limited interest to the early development of the castle. A single sherd of residual medieval pottery represents the only artefact of interest. In absence of artefactual evidence from Trench 2, samples of mortar and buried soil were collected to provide additional evidence through compositional and possible radio-carbon analysis.

6.2 Methodology

Finds were collected from site using a pre-determined sampling procedure during the evaluation. All finds were returned to the Salford Archaeology finds lab. Finds were washed and catalogued by material and sealed in labelled polyethylene bags. A finds catalogue was produced for the assemblage, providing details on each artefact's context, description, quantification, weight and date.

6.3 Overview

The initial archaeological work undertaken at Caernarfon Castle resulted in the recovery of 55 artefacts, with a combined total weight of 4291g, from the three trenches. These finds were collected from three separate contexts. The finds were catalogued, counted and weighed (Table 1). The main classes of material present are glass, animal bone and pottery dating from the 19th and 20th centuries. One sherd of medieval pottery was present in the assemblage, although almost certainly residual. Three samples of mortar have been retained from the structural remains on the site, and an additional sample from a humic buried soil was also retained.

Material	Count	Weight (g)	Date Range
Medieval Pottery	1	90	13th – 14th century
Post-medieval Pottery	31	3077	19th - 20th century
Clay Tobacco Pipe	1	4	18th – 20th century
Glass	8	824	Early 19th – 20th century
Animal Bone	9	154	Undated
Oyster Shell	4	122	Undated
Worked Slate	1	20	Modern
Total	**55**	**4291**	

Table 1: Table of materials recovered from evaluation trenches 1-3

The second phase of archaeological evaluation resulted in the recovery of 202 artefacts, weighing 4827g from the seven test pits. These finds were retrieved from 18 separate contexts, most of which are residual or disturbed contexts. The majority of the assemblage comprises animal bone, shell, iron, and pottery ranging from the Roman to modern period (Table 2).

Material	Count	Weight (g)	Date Range
Pottery	31	1278	Roman to Modern
Clay Tobacco Pipe	6	14	17th-19th century
Glass	1	8	18th-19th century
Iron	25	650	Undated
Copper	3	7	Post-medieval
Animal Bone	105	1629	Undated
Molluscs	23	1080	Undated
Coal	7	151	Undated
Wood	1	20	Undated
Total	**202**	**4827g**	

Table 2: Table of materials recovered from test pits 1-7

6.4 The Pottery

The pottery assemblage is very fragmentary and consists of 31 sherds from 11 contexts. The earliest material is a probable Roman sherd from deposit (*414*); the lowest deposit reached in Test Pit 4-5. This sherd has a sandy oxidised fabric and is highly abraded.

A late medieval pottery sherd was retrieved from deposit *416*; a cobbled surface in Test Pit 4-5. This sherd has an olive-green glaze and is likely to be 14th-century in date. A probable late medieval sherd was also retrieved from deposit *415*; this is a gritty, coarse sherd with reduced core and is likely to be 14th-15th century in date.

The majority of the pottery is post-medieval in date. Early post-medieval material consists of 11 sherds of early dark-glazed fineware of Cistercian type from residual contexts *204*, *502* and deposit *402*. Forms include a possible costrel from deposit *204* and slip-decorated drinking vessel/cup sherds from deposit *402*. Other early post-medieval pottery includes two sherds of Midlands Purple coarseware from deposit *304*, two joining green-glazed sherds from deposit *502* dating to the 15th-16th century, an unglazed whiteware sherd from deposit *413* dating to the 15th-16th century, and a green-glazed sherd with pale fabric with two perforated holes from deposit *602*.

The remaining pottery is 17th-century and later in date. This comprises three sherds of mottled ware, four sherds of dark-glazed coarseware of 17th-18th century date, a 17th-century slipware sherd, one sherd of pearlware, one sherd of 18th-century dark-glazed fineware, one sherd of brown-glazed stoneware, and a single piece of modern white ceramic.



Plate 42: Abraded oxidised ware, probably Roman (414)

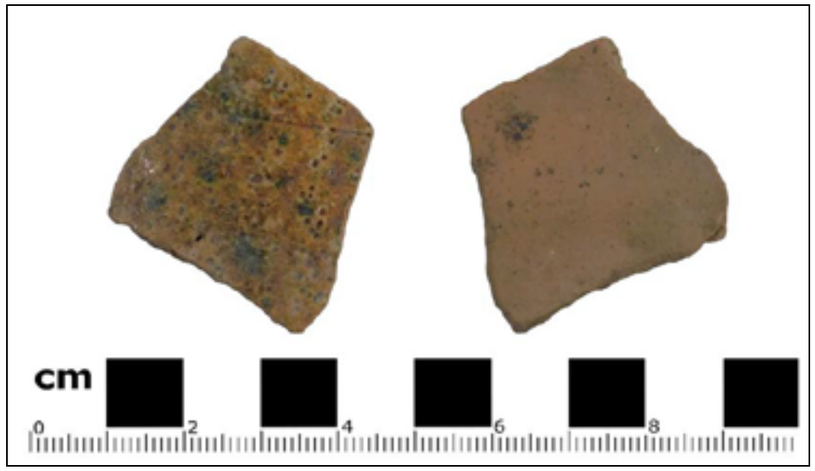


Plate 43: Medieval olive-glazed sherd (416)



Plate 44: Probable late medieval coarse gritty ware (415)



Plate 45: Dark-glazed fineware of Cistercian type, possible costrel (204)



Plate 46: Green-glazed whiteware (502)



Plate 47: Green-glazed sherd with perforations (602)

6.5 Clay Tobacco Pipes

A total of six fragments of clay tobacco pipe were retrieved from deposit *502*. This includes three plain stems, a mouthpiece, a fragment of 19th-century fluted bowl, and a stamped stem which reads: 'RENYON. LIVERPOOL'. These are from a disturbed residual deposit and the research potential of the pipes is limited to identifying to pipe makers' stamp.

6.6 Metalwork

Three pieces of copper were recovered during the excavations. The small group includes a small copper strip from deposit *414*, which is likely to be early post-medieval in date. Two modern pieces of copper wiring were also recovered from deposit *502*, which contains disturbed material.

A total of 25 iron nails were also retrieved, 24 of which came from deposit *502*, and a single nail from deposit *304*. These nails appear to be modern and highly corroded and no further work is required.

6.7 Organics

A total of 105 animal bones were recovered during the evaluation. Some of the bones appear to exhibit cut marks, particularly from deposit *304*. In addition, the assemblage included 20 oyster shells, two clam shells and a spiral mollusc were also recovered from deposits. It may be worth investigating further the cut marks on the bones to identify any evidence for butchery or animal processing.



Plate 48: Bone with deep cut marks (304)

6.8 Conclusion

The assemblage from Caernarfon Castle is very small and mainly comprises modern refuse deposits within the evaluation trenches. However, the probable Roman and medieval pottery are of interest, as well as the early post-medieval pottery from the site, which help to date features on the site and periods of activity. Very little potential for identifying pottery forms is available and is restricted to one of two vessels.

7. Discussion

7.1 Trench 1

The stratigraphic sequence in Trench 1 was relatively simple, commencing with the construction of the basement level of the West Tower, and subsequent levelling that obscured the rubble foundation. The construction level was defined by an irregular spread of mortar at the base of the trench beneath the later levelling.

This was followed by an episode of dumping and accumulation within the tower, including a 19th-century rubbish pit. The date range of the finds from the overlying deposit was much wider and probably represents deposition over an extended period, with a lesser occurrence of finds, deriving through incidental loss rather than dumping.

A significant result obtained from Trench 1 was the lack of a substantial foundation on the interior side of the tower wall. The stonework exposed in the lower levels of the western elevation was roughly coursed and sat above an irregular mortared foundation, bottoming out at a depth of 900mm below current ground level.

An absence of stone flooring within the base of the tower and the relatively shallow depth of the foundations allows some inferences to be made about flooring at basement level. As no surviving pitched stones or cobbles were observed within the trench, a beaten earth floor seems probable. This certainly accords with the functional analysis of the basement of the West Tower, which is thought to have been for storage. Additional inferences can now be made about the level of the floor within the basement, which must have been raised above the level of the rubble foundation at 8.12m aOD, presumably level with the surface of contemporary levelling material at height of 7.28m aOD, 400–450mm below current ground level.

7.2 Trench 2

The archaeological remains identified in the north-west corner of the Prison Tower basement can be broken down into two distinct phases. The earliest activity saw the construction of a putative stone platform, atop which the foundations for the west and north walls of the tower were built. The level, well-laid cobbled surface evidently served as a floor during this time and may have supported temporary structures or supports.

Inspection of the elevation of the north wall revealed some of the earliest fabric of tower including two courses of regularly coursed stonework, set back from the upper face of the wall. These courses, exposed in the north-west corner of the trench, had been obscured by raising of floor surfaces within the tower. It is thought this stonework and the adjacent rubble foundation to the east were constructed during the first period of work in the 1280s. The fact that the upstanding wall above is ‘out of face’ and projects out from the foundation seems to suggest it has been repaired subsequently or rebuilt.

Seeing as the lower faced stonework continues below the lower level of the west wall, it would appear the west wall represents an internal modification, perhaps completed during the second phase of construction, which saw the ground-level rooms of tower finished. The use of a different mortar in the corner foundation of the west wall supports a break of phase. In absence of any relative dating, all that can be said is that this event occurred after the construction of the lower courses of the north wall.



Plate 49: Sketch of the interior of Caernarfon Castle by Antony Salvin (RIBA Library Drawings Collection: PB277/5(8))

The stub of masonry built against the northern wall, interpreted provisionally as a wall, seems to extend from the foundation of the north wall and is built with similar material. The composition of the pinkish-grey mortar, flecked with lime and charcoal inclusions was particularly suggestive; it is not unreasonable to assume this structure medieval in date and was built concurrently with the earliest elements of the tower.

Subsequent changes to floor level, which saw the insertion of a stone surface level with the denuded wall, are less easy to phase, particularly in absence of any absolute dating. The stone surface lying 180-220mm below current floor level could have been inserted at any time during the castle’s subsequent historic use in the medieval or post-medieval periods. The similarity in the lime mortar used in floor and bonding the west wall foundation strongly suggests a relatively early date of construction, though this cannot be substantiated. Whether the floor was raised during conversion of the tower in the 19th century may also be considered.

After falling into disrepair in the 16th century, this part of the tower seemingly fell redundant until its repair in the 19th century, at which time the building was overgrown (Plate 42). Following repair works, it formed part of the Custodian's Cottage and has been used for storage subsequently.

In summary, the work conducted within the Prison Tower has been key to identifying the level of significant archaeological remains, which comprise an integral part of the building's fabric. The provisional phasing suggests most of these remains are medieval in date, with potential for the upper stone surface to also be medieval/post-medieval in origin.

7.3 Trench 3

Trench 3 was located to the north of the curtain wall that runs between the King's Gate and the Well Tower. The purpose of the trench was to ascertain whether any visible traces of a drain outlet could be found in the lower courses and foundation of the wall and to characterise the deposition of any material encountered.

The sloping plinth or glacis more visible on the southern and eastern elevations of the castle was exposed at the foot of the curtain wall. Whilst this is not an unexpected architectural feature its presence was not formally acknowledged in the area prior to the work and as such represents a minor yet important contribution to our knowledge of the castles design. At present, it is still uncertain whether the King's Gate also displays this architectural feature; its presence along the adjoining curtain raises the probability that this was a consistent element in its design.

Higher up in the southern elevation of the wall, it was possible to identify a clear area of infilled stonework. This lay four courses above the modern ground level within the moat. The position of the feature is consistent with the depth of the drain, which was investigated internally through a measured survey. As no obvious outlets are visible above or below, the infilled block probably represents the bottom of the inter-mural drain.

The excavation has enabled the level of significant archaeology in the form of sealed deposits within the northern defences, to the north of the curtain wall, to be determined. The lowest stratigraphic unit to be deposited against the face of the stonework, above the natural bedrock consisted of a sterile, sandy clay layer. The absence of finds or anthropogenic material within this layer is certainly consistent with a in-wash deposit that could have accumulated immediately after the cutting of the ditch.

The material immediately above this early layer consists of sand deposit flecked with mortar, extending from the face of the sloping plinth. The stratigraphic position of the layer is consistent with the early phases of construction and may represent residue from a building phase in the 13th or 14th century.

The overlying deposits *(3001)* and *(3002)* were apparently later in origin and relate to the accumulation of made-ground against the castle wall, as depicted in 19th-century representations of the King's Gate (Plate 50). Documentary references to domestic structures built against the castle reinforce notions that ground level by this time had reached the approximate level of the road.

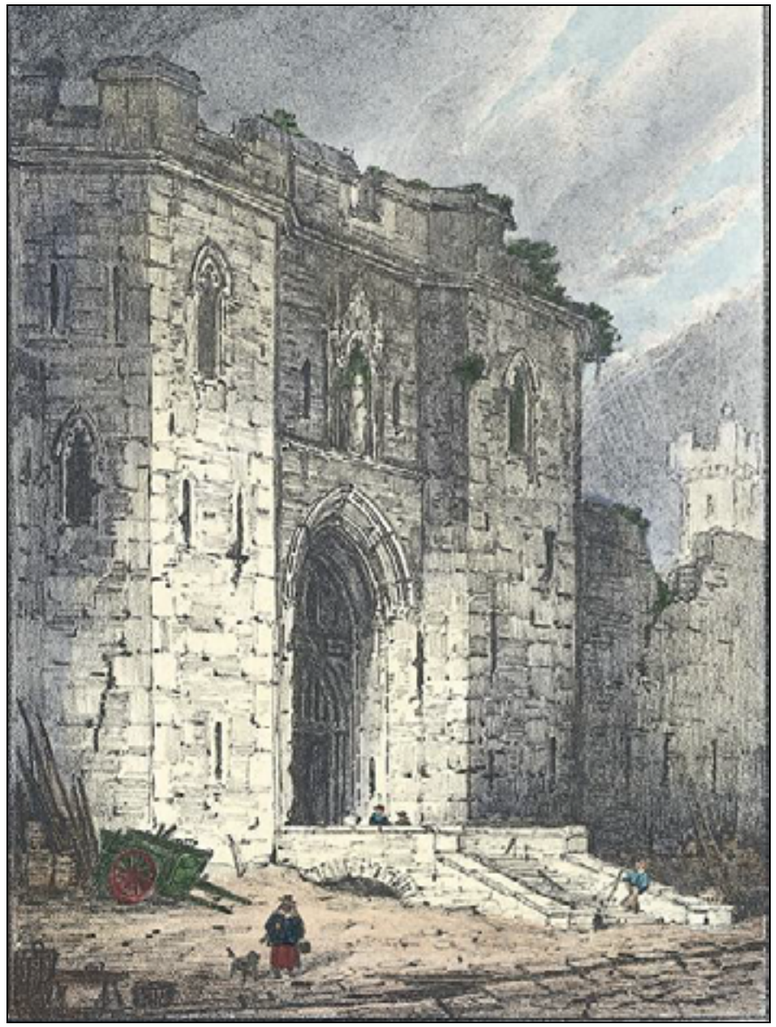


Plate 50: Artistic impression of the King's Gate from 1840 (RCAHMW: The National Library of Wales)

Changes to ground level to restore the northern façade of the castle were implemented during the latter half of the 19th century, as captured on photographs taken during the first quarter of the 20th century. A photograph taken in 1911 during the Royal investiture shows steeply cut excavations into this later material and provides some indication of the volume that had to be removed (Plate 51).



Plate 51: Construction of the 'moat stand' for the royal investiture, taken 10/05/1911. Note the exposed bank of earth (right), now held back by retaining wall (Cadw Archives - CN079-DOE-1L-00-3890)

7.4 Test Pit 1

The archaeological remains uncovered within Test Pit 1 were perhaps the least significant within this phase of works. Upon initial discovery, cobbled surface *103* was thought to be of some antiquity, although further excavation revealed a layer of undisturbed concrete lower in the stratigraphic sequence, indicating that surface *103* was considerably later and likely dated to restoration work undertaken in the 20th century. Once this had been established, closer inspection showed that these cobbled area bore a resemblance to other groups of above-ground cobbles which were visible within the lower kitchen area adjacent to the test pit. The cartographic record suggested that several walkways within the castle had been redirected 1918-65. The concrete was of a type that could be broadly typologically placed within the late 19th to mid-20th century.

7.5 Test Pit 2

The uppermost archaeological layers of Test Pit 2 *(203* and *204)* contained a small group of pottery that have been dated to the 16th or 17th century, although it is probable that these fragments were residual, and redeposited in the 19th or 20th century. The underlying layers were dominated by compacted gravels and mortars, which were likely the remains of some form of surface which subject to continuous repair. These compacted gravel-mortar layers bore a resemblance to that also found within Test Pit 3 (layer *305)*, which was found at a similar depth of *c* 0.7m below the modern ground surface. It could be tentatively suggested that these similar compacted layers found within Test Pit 2, 3, and perhaps even 4-5, were broadly contemporary. However, unlike that found in Test Pit 3 *(307),* there was no evidence of any more robust flagged surface within Test Pit 2, though this may have been present at a depth greater than 1m.

The evidence that is available tentatively suggests that layers *206, 209,* and *208* may derive from the late medieval / early post-medieval period. The presence of a similar mortar-gravel layer within Test Pit 3, though also not conclusively dated, was potentially contemporary or perhaps even a continuation of the same horizon.

7.6 Test Pit 3

The only context within Test Pit 3 that produced dateable artefacts of interest was layer *304*, which yielded fragments of pottery that can be dated to the 16th century. This layer sealed gravel-mortar layer *305*, which was very similar to surfaces revealed in other test pits. The pottery recovered from *305* may tentatively suggest a *terminus ante quem* of the 16th century for the various surfaces. Interestingly, excavation of surface *305* exposed the remains of a robust and partially flagged stone surface *(307)*, which may similarly be dated provisionally to the late medieval / post-medieval period.

Due to the small size of the test pit, only limited information could be gleaned from the area of probable burning in the north-east of surface *307.* No charcoal was recovered but the discolouration of the stones and mortar and the way in which the burning appeared to respect the larger flagstones were persuasive of its validity as a feature worthy of discussion. Stone surface *307*, together with *503,* were the most substantial structural remains encountered in the test pits, and could be compared very broadly to those remains in the Prison Tower, such as *2004.*

The iron service pipe within layer *302* with no visible foundation cut likely dated from the restoration works of the castle, sometime in the 19th or 20th century.

7.7 Test Pit 4-5

Test Pit 4-5, once extended, was the largest of the test pits excavated in the second phase of the evaluation, and was likely the most informative of the possible buried remains within the Lower Ward. Significantly, a few stratified pottery sherds were recovered, which have allowed a broadly dated developmental sequence to be postulated. At the south-western end of the test pit was layer *502,* a dark brown sandy-silt which appeared to extend across the Lower Ward, as comparable material was identified in the other test pits. In particular, layer *502* was similar to layers *302* and *203*.

Conversely, layer *503* yielded more sherds of pottery than all other contexts in the test pits combined. These sherds had a date range spanning the late medieval period to the 19th century, presumably reflecting ground disturbance during landscaping works undertaken in the 19th and 20th centuries.

Perhaps the most distinctive feature within Test pit 4-5 was linear feature *412*, which was filled by *413.* Though the uppermost part of *413* was loose and had potentially been disturbed, the feature did appear to cut through layer *502.* It thus seems most likely that the single sherd of medieval pottery recovered from fill *413* was residual. This does not help to explain the intended function of feature *412*, although it remains possible that it was a foundation cut for a continuation of the wall that survives as a stub against the putative kitchen range. Conversely, and perhaps more likely, feature *412* may represent a robber trench, dating to as late as the 19th century, although this is speculative.

Test Pit 4-5 was able to expand upon the nature of the reconstructed wall remains that enclosed the graveled area adjacent to the south-east curtain wall. Initially, stone and mortar surface *409* was thought to potentially relate to the buried remains of that reconstruction. However, further excavation demonstrated that this interpretation was probably incorrect. The cartographic evidence for the more recent changes across the Lower Ward showed that work undertaken in 1888-1918 included the relocation of the two main pathways across this area. Similar work appears to have been carried out in the Upper Ward, where paths were also redirected, although there was no evidence of the reconstructed wall that exists today. The map evidence was not especially detailed from this period, although the 1965 edition of Ordnance Survey mapping shows an L-shaped wall that was aligned south-west/north-east and south-east/north-west. This corresponds broadly to the ground-level reconstructed wall that enclosed the gravel area within which Test Pit 4-5 was located; this L-shaped was is not shown on either 1888 or 1918 editions of Ordnance Survey mapping. This, along with the lack of archaeological evidence for any buried remains that correlate to the contemporary wall which enclosed the gravel area, would likely indicate that this feature was constructed sometime 1918-65. The lack of archaeological evidence for this structure would suggest that the above-ground remains were solely an interpretation not based upon any buried remains, or was meant to serve a purpose unrelated to the interpretation and reconstruction of the site, such as simply enclosing an area or delineating a walkway.

The gravel surface *(501/401)* at the north of Test Pit 4-5 was considerably shallower than it was at the southern extent of the excavation. Layer *402*, though similar in appearance to later layers such as *502*, was considerably more compact and less disturbed. Four sherds of pottery recovered from layer *402* have a date range spanning the 16th and 17th centuries, suggesting that this layer, though particularly shallow, was *in situ* and dated to the post-medieval period.

Slightly lower in the stratigraphic sequence visible at the northern end of Test Pit 4-5 of clayey silt layer *410.* This layer produced a single sherd of pottery that has been dated to the 15th / 16th century. This would suggest that the possible surface of gravel-mortar, *(406),* which was sealed by layer *(402)* and above layer *(410),* could be dated broadly to this period.

A further sherd of pottery was recovered from the gravel-cobbled layer *416*, which has also been dated to the early post-medieval period. This is significant as this was the only fragment of pottery recovered from a structural context rather than a fill or a layer. This individual sherd was particularly worn and well-rounded, and may have been present within this cobbled layer for some time. The presence of this single sherd tentatively allows a date to be postulated for the more substantial and partially overlaying stone and mortar layer *409.* As layer *(416)* appeared to have been constructed upon the same sandy-mortar bedding layer, *(411),* as the partially stone-flagged surface *503*, it seems possible that these surfaces could be considered broadly contemporary.

The lowest layer within Test Pit 4-5 *(415)* also produced dateable material in the form of three sherds of medieval pottery, including a partial rim sherd. As it is historically recorded that construction of the castle began in 1283AD, it is possible that this context, *(415),* related to this early phase of construction work. The layer itself was quite distinct with no comparative contexts found in any other test pits or trenches – a sandy-clay with a high frequency of charcoal flecks. Due to the size of the excavation it is difficult to further expand upon the possible purpose of the context, *(415),* though it may have been associated to some of the original groundworks at the castle, such as levelling.

7.8 Test Pit 6

Test Pit 6 had the simplest stratigraphy of any of the test pits, with physical evidence for development works carried out in the 19th and 20th centuries. The recovery of three sherds of pottery from layer *602* with a date range spanning the late medieval / early post-medieval period to the 19th century indicates that the ground had been disturbed, if not completely remade and built up, sometime in the recent past.

However, the lowest layer within Test Pit 6 *(603)* did not yield any dating material, and was quite distinct from the overlying rubble *602*. Whilst unconfirmed, this layer could potential derive from medieval or early post-medieval activity.

7.9 Test Pit 7

Much of Test Pit 7 was dominated by the brick-built soak-away drain at the southern end of the excavation. The use of frogged bricks within the brick drain structure *(704)* suggested that this feature related to the restoration and reconstruction works during the 20th century. Additionally, the brick soak-away was placed beneath the contemporary paved walkway and seemed to reflect its orientation, which was aligned approximately east/west across the Lower Ward. The available cartographic evidence suggests that the present-day walkways were constructed sometime between the surveys for the OS maps of 1918 and 1965, which likely indicated that brick drain *704* was constructed sometime after 1918.

No other dateable material was recovered from the various layers within Test Pit 7, though a layer of concrete *(709)* was encountered. However, the lowest layer excavated within Test Pit 7 *(710)* contained no dateable material and bore a strong similarity to layer *414,* particularly as it contained a high frequency of crushed shell. Through relationships, layer *414* is likely to represent early post-medieval activity in the Lower Ward.

8. Significance and Impact

8.1 Significance

Whilst the excavation of Trench 1 yielded important information regarding the foundations of the West Tower, archaeological interest in the simple stratigraphic sequence was limited to the physical evidence for the late 13th-century construction activity, represented by the vestiges of a layer containing apparent construction-work detritus. No evidence for medieval floor surfacing was present in the West Tower, and the original level was evidently raised during the post-medieval period. Whilst of some archaeological interest, these layers are of limited significance.

The excavation of Trench 3 in part of the moat to the north of the curtain wall similarly yielded thin layers that seemingly contained traces of debris from medieval construction work. Again, whilst of some archaeological interest, these layers are of limited significance.

Conversely, the sequence of structural remains revealed at a shallow depth beneath the modern floor surface in the Prison Tower, represent at least two distinct episodes of medieval building work. The remains are fairly well preserved, and have potential to reveal new information about the castle's construction. These remains are considered to be of high significance.

The remains exposed in Trench 2, moreover, almost certainly extended beyond the confines of the excavated area, and it may be anticipated that similar remains survive in-situ across the Prison Tower, and that these are likely to be at a shallow depth.

The test pits of the Lower Ward showed that buried remains dating to the late medieval or early post-medieval period are likely to be present in Test Pits 3 and 4-5, and potentially within 2 and 7, albeit in a fragmentary condition. Test Pits 1 and 6 produced little to no evidence of any undisturbed medieval / early post-medieval activity. All of the test pits contained evidence for disturbance during the 19th or 20th centuries, reducing the overall significance of the archaeological resource.

8.2 Impact

The impact on below-ground archaeological remains of installing a new lift in the West Tower will be less than substantial and, with appropriate mitigation, could be reduced to negligible harm.

The impact of the proposed works on the archaeological resource in the moat will also be less than substantial and, with appropriate mitigation, could be reduced to negligible harm.

The impact of setting new drainage infrastructure into the floor of the Prison Tower has potential to impart substantial harm on the archaeological resource.

The impact of new drainage and service across the Lower Ward has potential to impart some harm upon archaeological remains, especially in the vicinity of Test Pit 4-5 and 3. However, these remains are not considered to be of a level of significance that would necessarily require their preservation *in-situ*, and the impact of development could be offset by the implementation of an appropriate strategy for archaeological recording.

9. Conclusion

9.1 Conclusion

The proposed insertion of a lift shaft in the West Tower will have limited impact on archaeological remains, and any harm to the below-ground archaeological resource can be offset by implementing a mitigation strategy. In the case of the West Tower, an appropriate and proportional response would be to maintain an archaeological presence during any further ground-breaking works required to construct the proposed lift.

The stratigraphic sequence revealed in the trench placed in the moat was similarly simple, and whilst some physical evidence for medieval activity survives in surviving lenses of material, any harm of installing a drain age pump could be offset by appropriate archaeological mitigation. Again, a watching brief during ground-breaking works is likely to be a adequate response.

The archaeological remains immediately below the modern floor in the Prison Tower, however, are of greater significance, and comprise a series of structural elements that seemingly span the initial phase of the castle's construction through to the post-medieval period. The importance of these remains, and their associated stratigraphic sequence, merits preservation *in-situ* and will require consideration of an engineered solution to installing the new drainage system.

The archaeological results of the test pits placed in the Lower Ward were somewhat varied, but demonstrated that some archaeological layers were present, particularly towards the western part of the area investigated, where structural and stratified medieval and post-medieval remains were identified. However, these remains are not of such significance that would necessarily merit their preservation *in-situ*, and the harm from installing a new service trench across the Lower Ward could be offset by appropriate archaeological mitigation.

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Archive and Acknowledgements

Archive

The archive is currently held by Salford Archaeology, and consists of survey drawings, digital photographs, and electronic data. As part of the archiving process, the on-line OASIS (On-line Access to Index of Archaeological Investigations) form has been completed.

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Appendix 1: Figures

Figure 1: Site location

Figure 2: Location plan of the evaluation trenches and test pits

Figure 3: Location of Trenches 1-3

Figure 4: Plan of Trench 1

Figure 5: Plan of Trench 2

Figure 6: Western and northern elevation and west-facing section of Trench 2; west-facing section and southern elevation of Trench 3; south-facing section and eastern elevation Trench 1

Figure 7: Plan of Test Pit 1

Figure 8: Plan of Test Pit 2

Figure 9: Plan of Test Pit 3

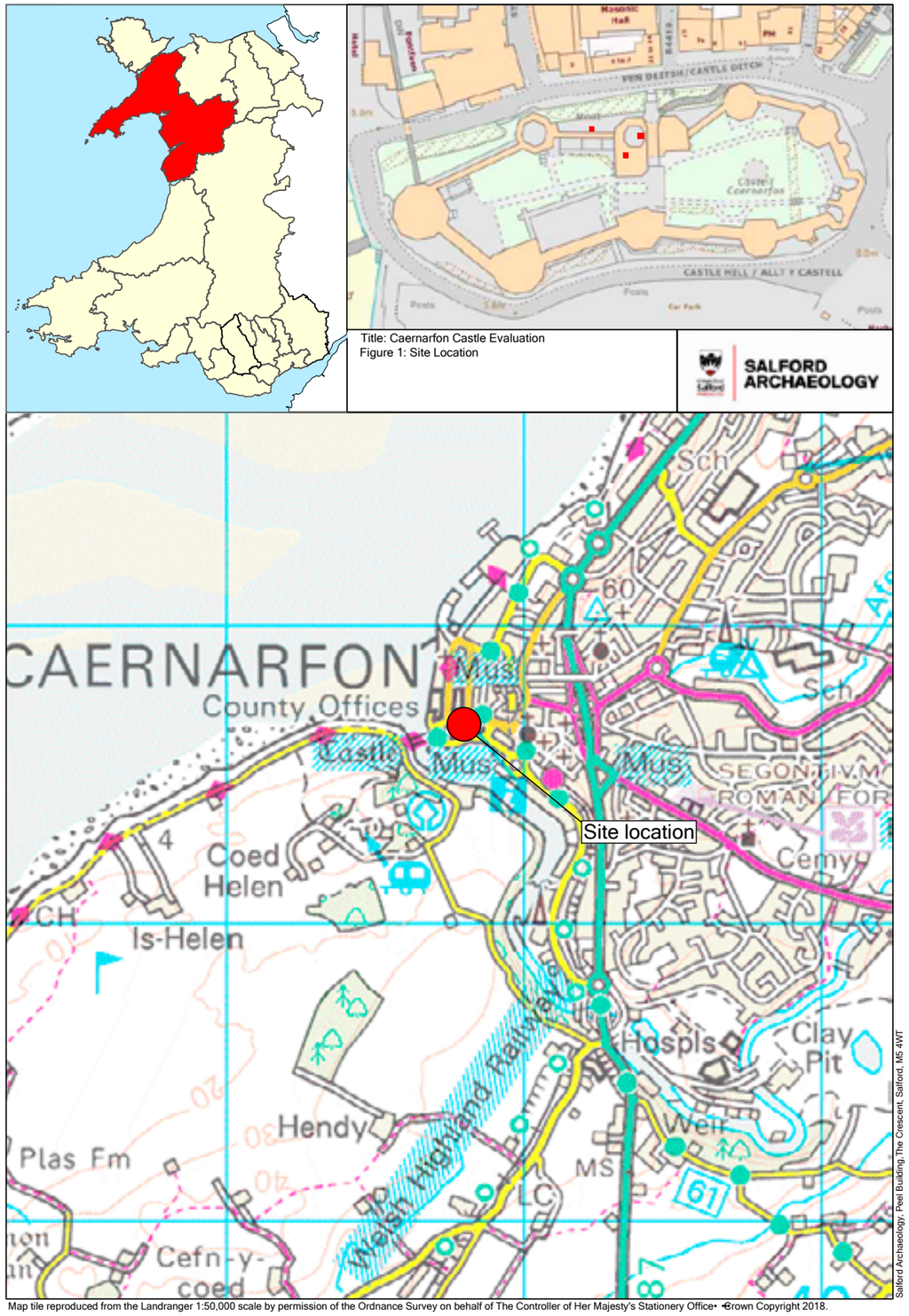
Figure 10: Plan of Test Pit 4-5

Figure 11: Plan of Test Pit 6

Figure 12: Plan of Test Pit 7

Figure 13: Sections of Test Pit 4-5

Figure 14: Sections of Test Pits 1, 2, 3, 6 and 7

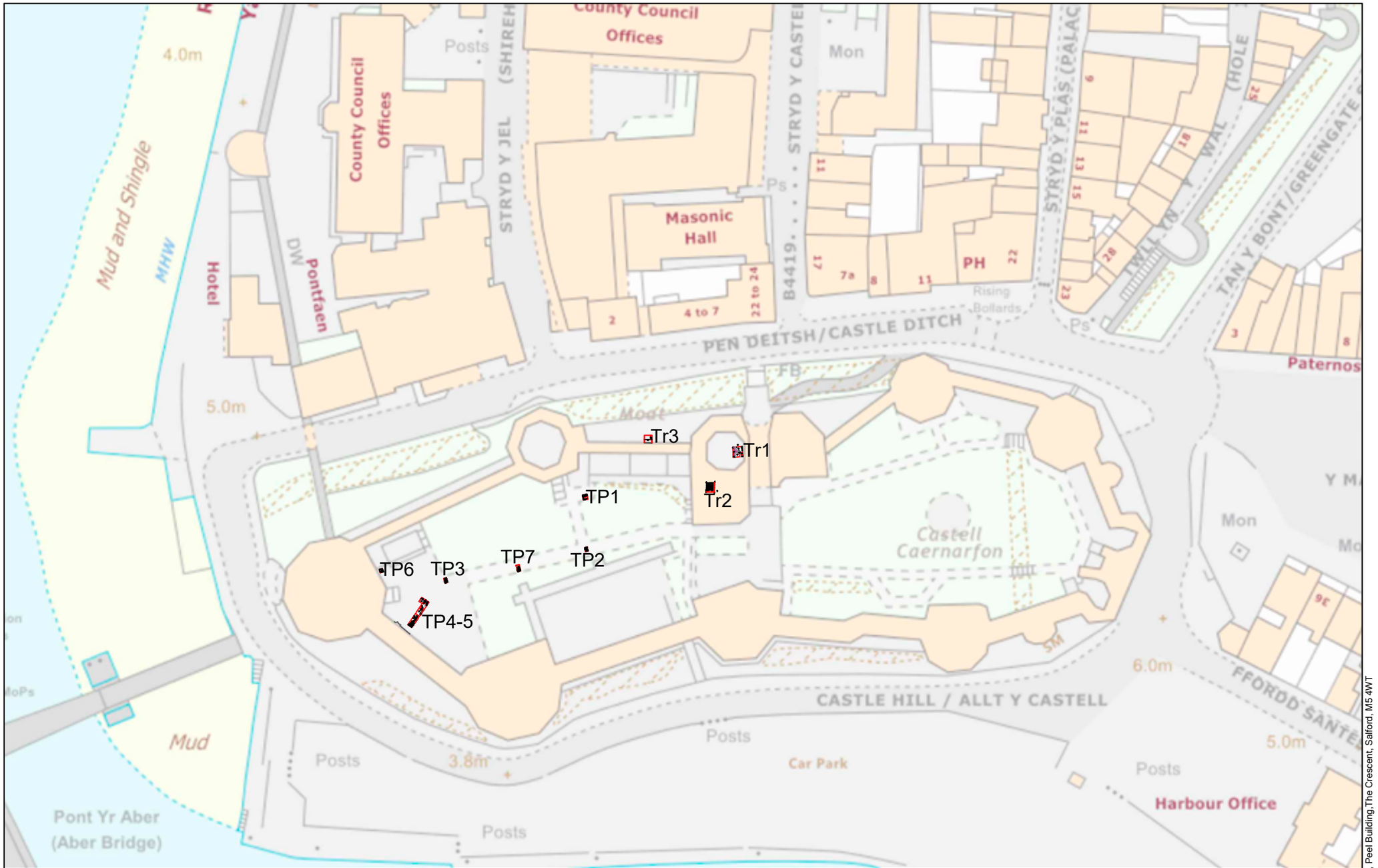


Title: Caernarfon Castle Evaluation
Figure 1: Site Location

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Salford Archaeology

0 50 m

Scale at A4 1:1000

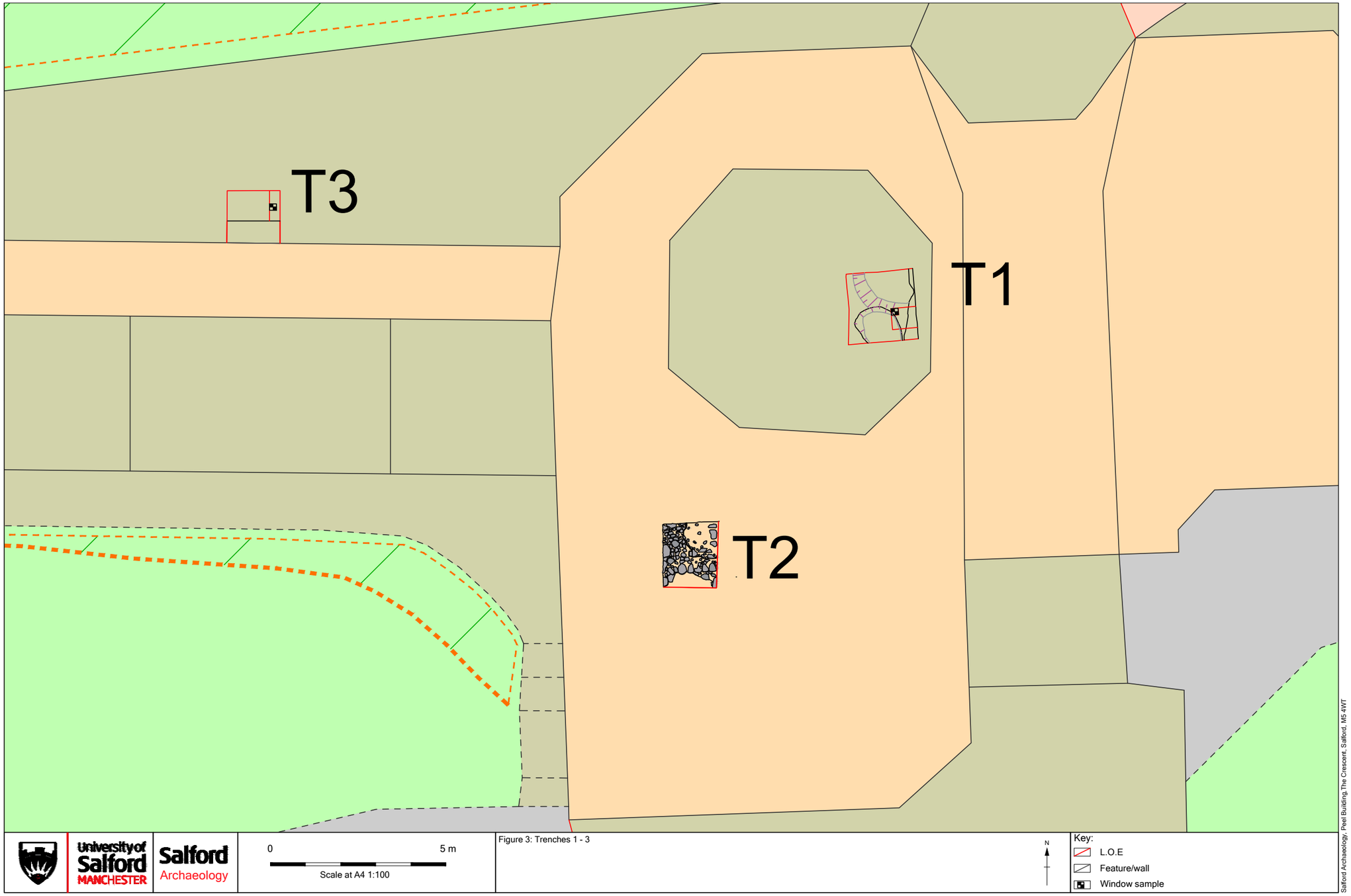
Figure 2: Location Plan for Test Pits and Trenches

N

Key:

Trenches and Test Pits

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T3
T1
T2
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0
5 m
Scale at A4 1:100
Figure 3: Trenches 1 - 3
N
Key:
L.O.E
Feature/wall
Window sample
Salford Archaeology, Peel Building,The Crescent, Salford, M5 4WT

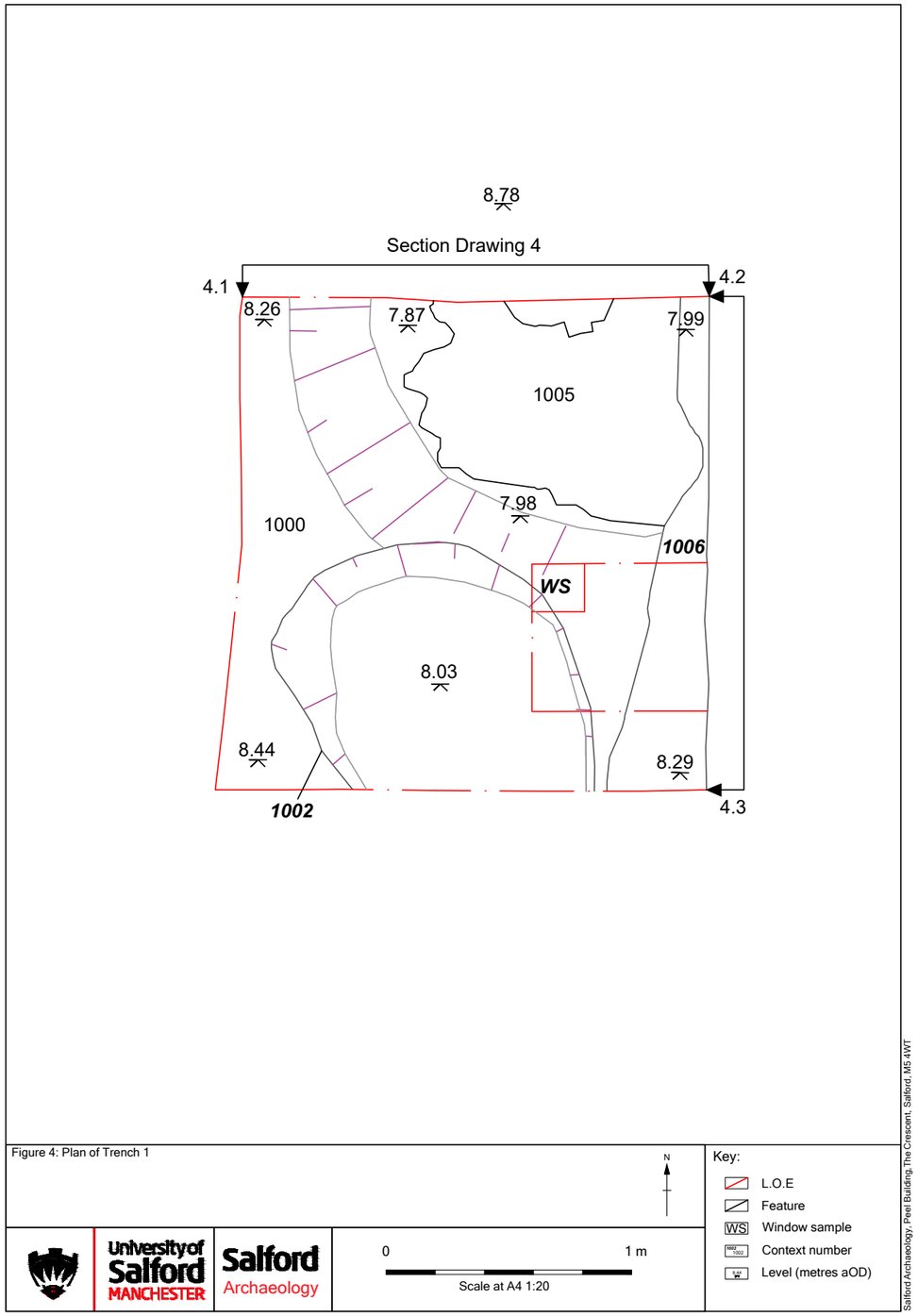


Figure 4: Plan of Trench 1

N

Key:
- L.O.E
- Feature
- WS Window sample
- Context number
- Level (metres aOD)

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0 — 1 m

Scale at A4 1:20

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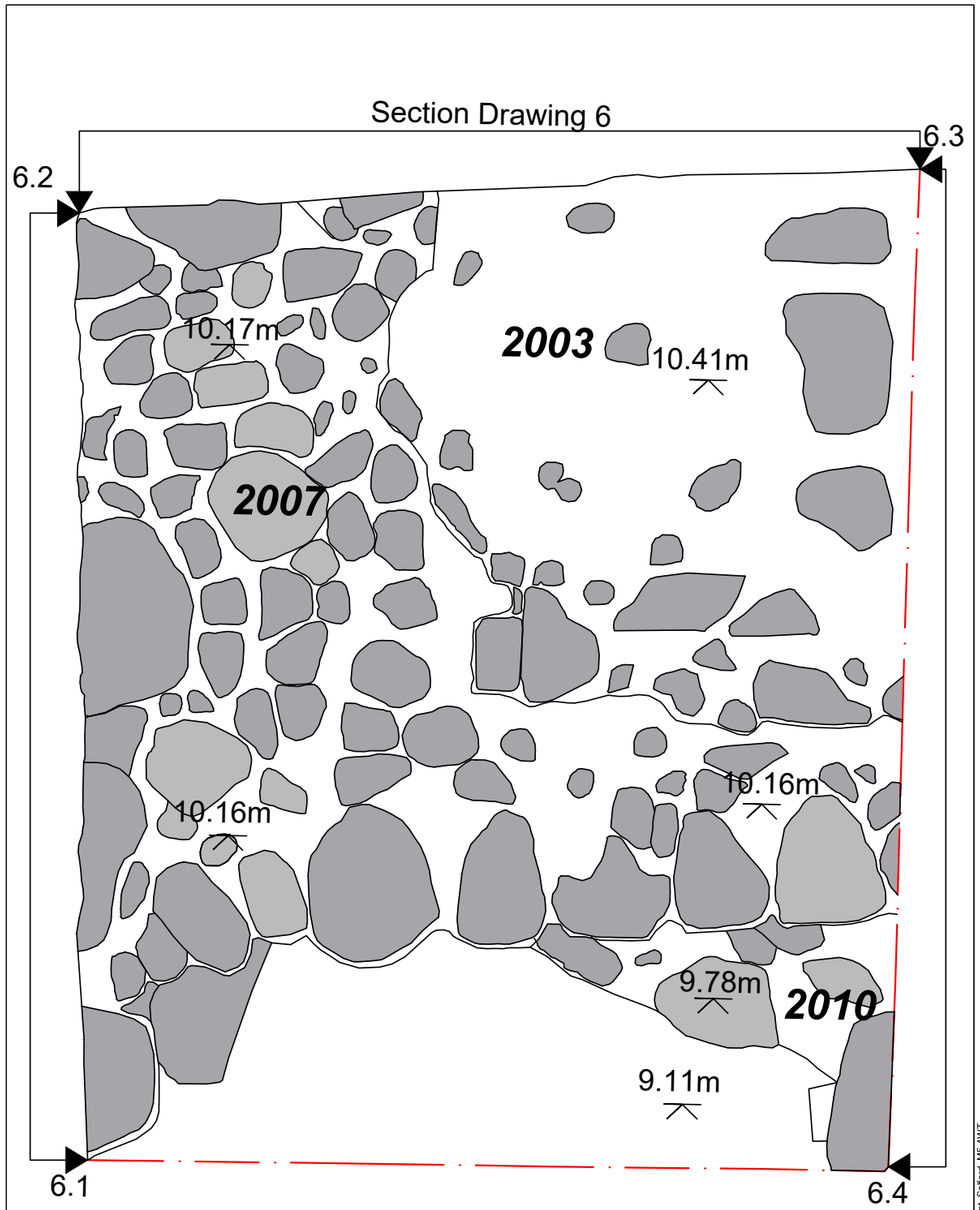


Figure 5: Plan of Trench 2

N

Key:
- Stone
- L.O.E
- Feature
- WS Window sample
- Context number
- Level (metres aOD)

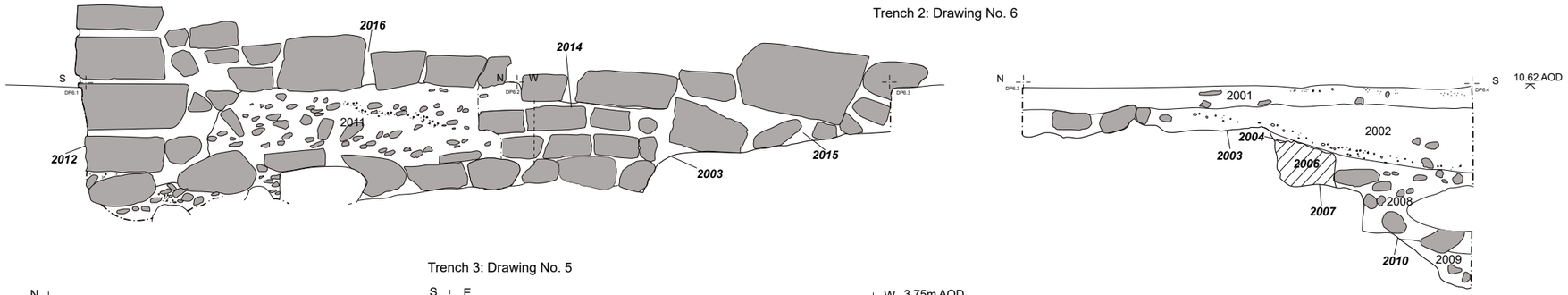
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0 — 500 mm

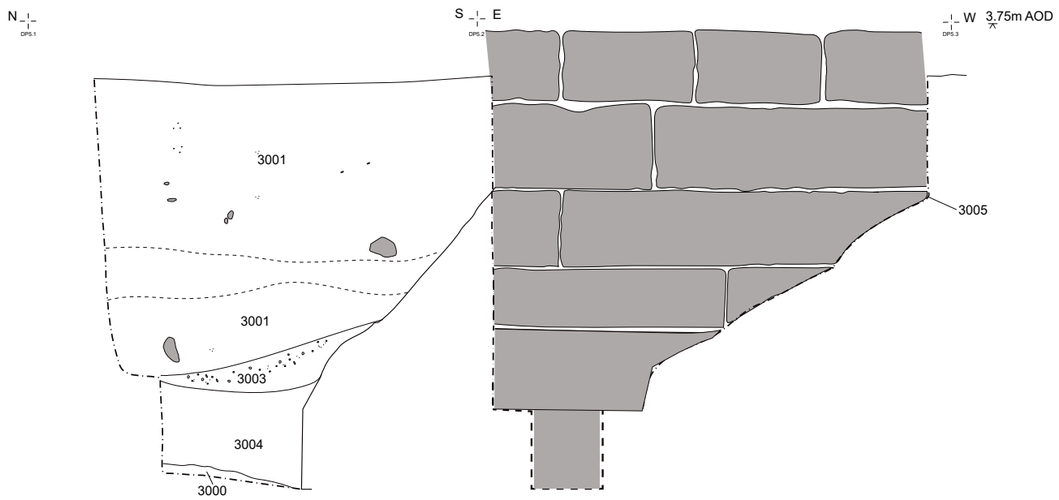
Scale at A4 1:10

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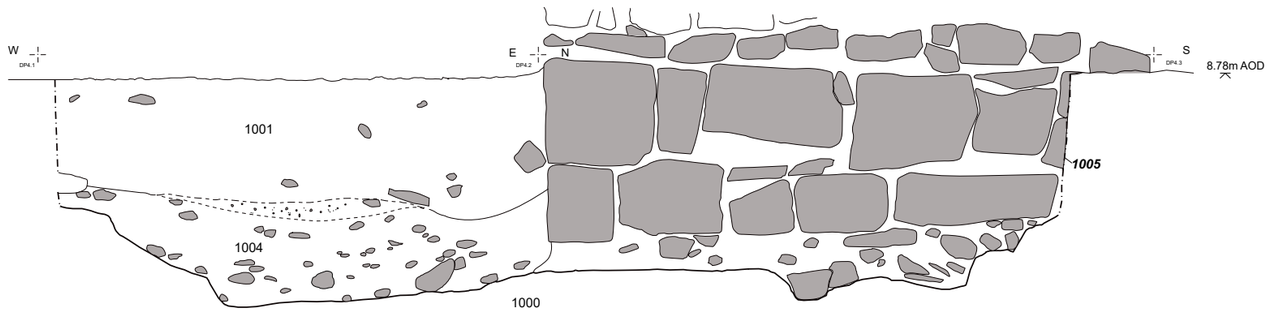
Trench 2: Drawing No. 6



Trench 3: Drawing No. 5



Trench 1: Drawing No. 4





0 1 m

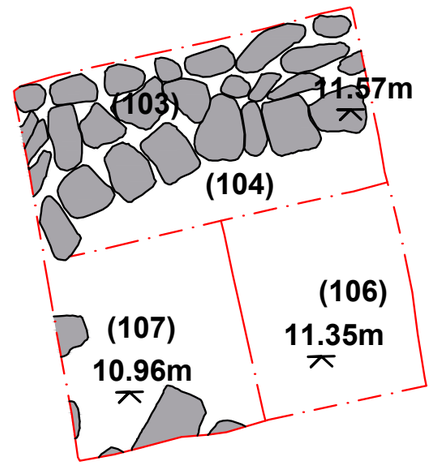
Scale at A3 1:20

Figure 6: Western and northern elevation and west-facing section of Trench 2 (Drawing No. 6); west-facing section and southern elevation of Trench 3 (Drawing No. 5); south-facing section and eastern elevation Trench 1 (Drawing No. 4)

Key:

- Stone
- Structure Number
- Deposit Number
- Edge of Context
- Limit of Excavation
- Uncertain Edge/Lens

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0 1 m

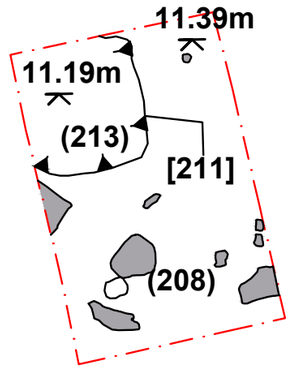
Scale at A4: 1:20

Figure 7: Test Pit 1

N

Key:
- Sondage and trench edge
- Stone
- (106) Context
- Level AOD

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0 1 m

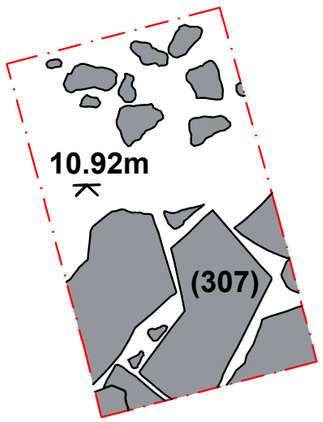
Scale at A4: 1:20

Figure 8: Test Pit 2

N

Key:
- Sondage and trench edge
- Feature
- Stone
- (106) Context
- Level AOD

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0 1 m

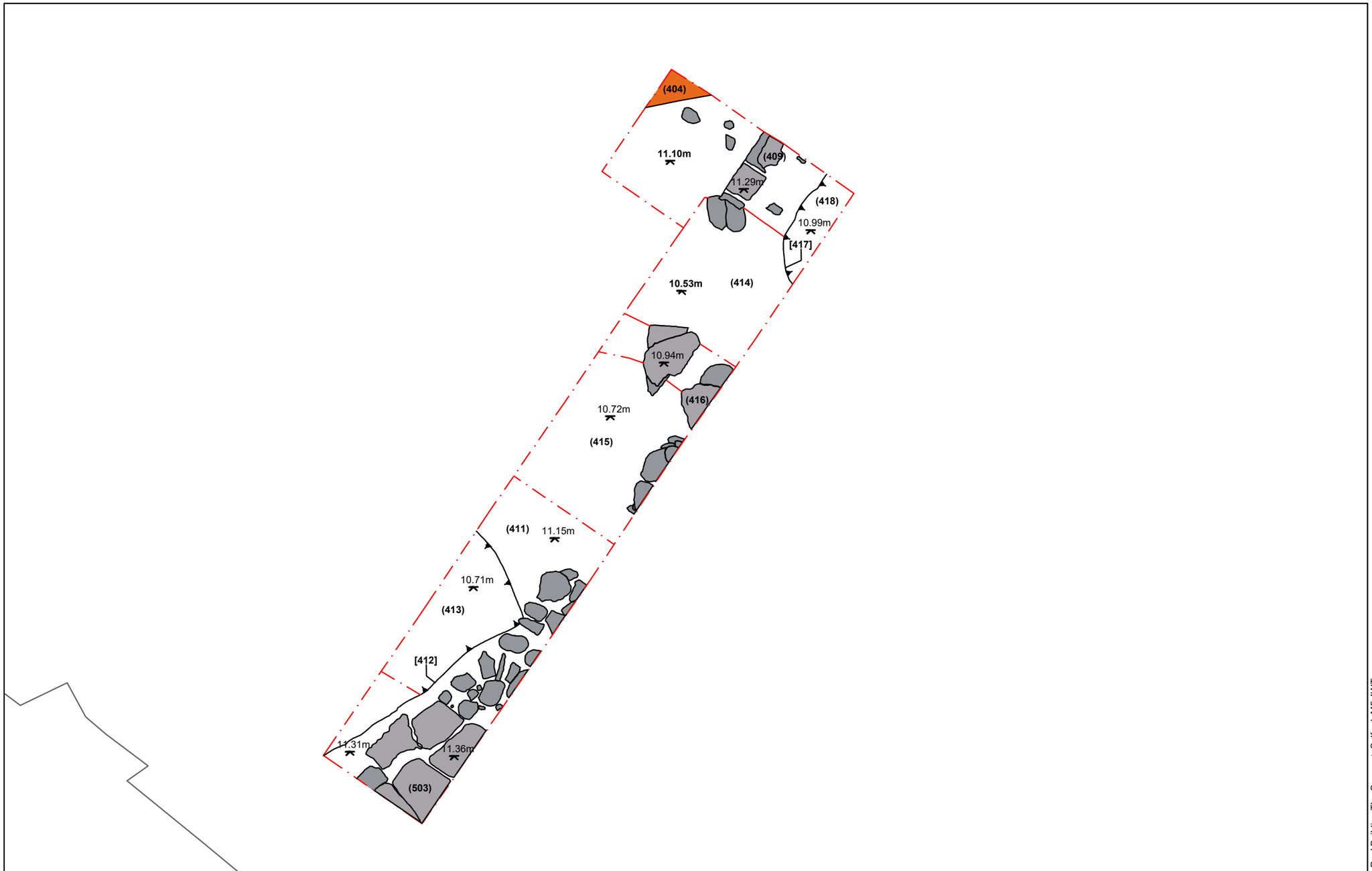
Scale at A4: 1:20

Figure 9: Test Pit 3

N

Key:
- Sondage and trench edge
- Stone
- (106) Context
- Level AOD

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0 2 m

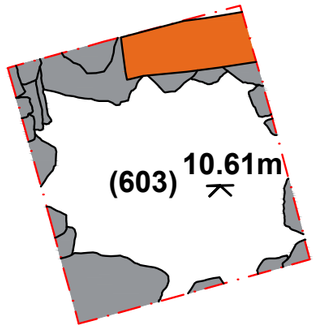
Scale at A4: 1:40

Figure 10: Test Pit 4-5

N

Key:
- Sondage and trench edge
- Stone
- (106) Context
- Level AOD
- Feature
- Drain
- Castle wall

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0 1 m

Scale at A4: 1:20

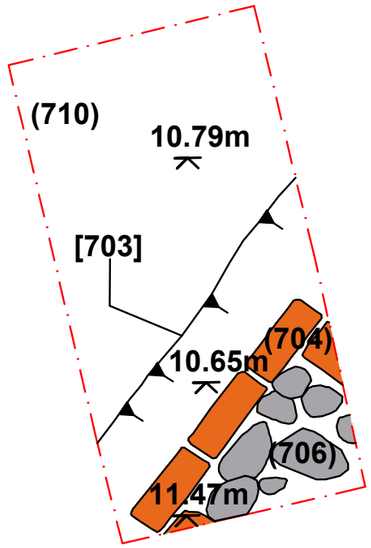
Figure 11: Test Pit 6

N

Key:

- Sondage and trench edge
- Stone
- (106) Context
- Level AOD
- Ceramic drain

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0 1 m

Scale at A4: 1:20

Figure 12: Test Pit 7

N

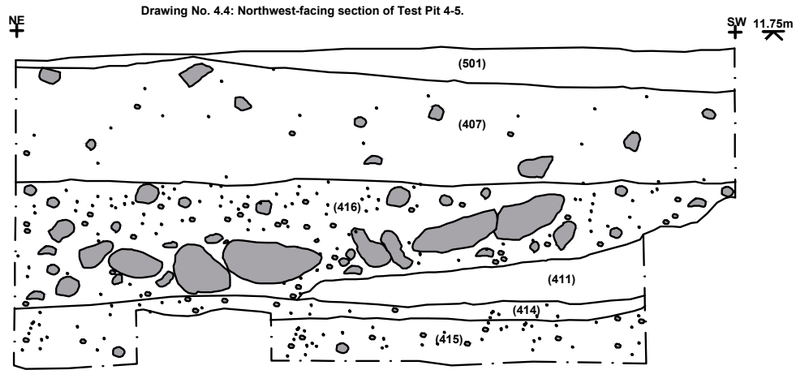
Key:
- Sondage and trench edge
- Stone
- (106) Context
- Level AOD
- Feature
- Brick

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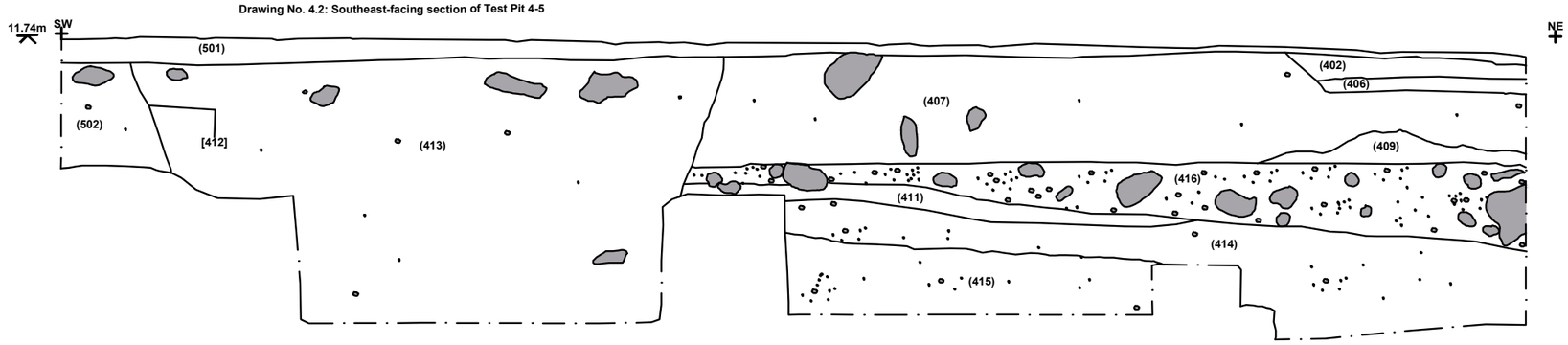
Drawing No. 5.1: Southwest-facing section of Test Pit 5, later excavated.



Drawing No. 4.4: Northwest-facing section of Test Pit 4-5.



Drawing No. 4.2: Southeast-facing section of Test Pit 4-5



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0 1 m

Scale at A4: 1:25

Figure 13: Sections of Test Pit 4-5

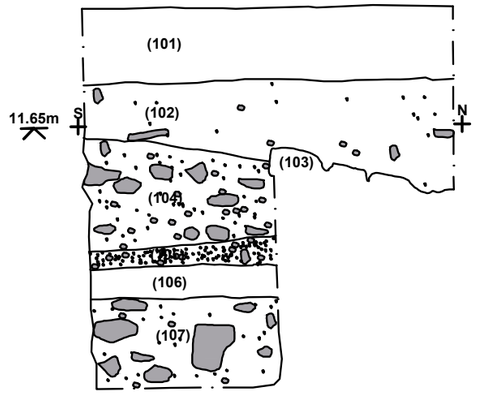
N

Key:

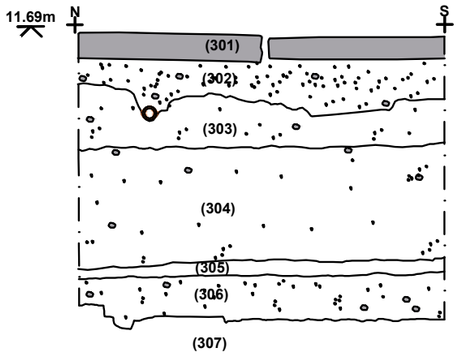
- Sondage and trench edge
- Feature
- Stone
- (106) Context
- Level AOD

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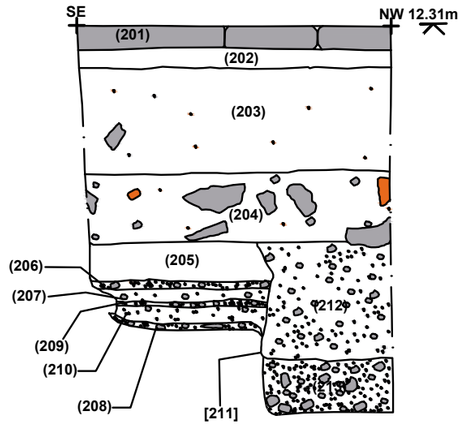
Drawing No. 1.2: West-facing section of Test Pit 1

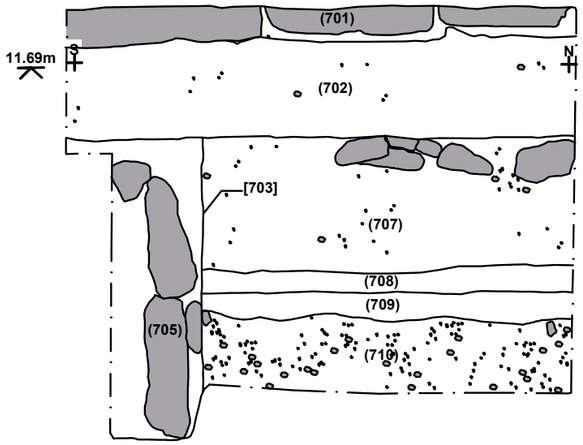


Drawing No. 3.3: West-facing section of Test Pit 3



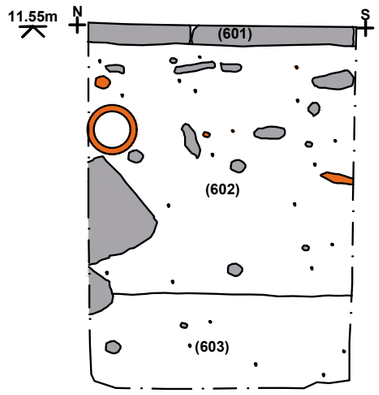
Drawing No. 2.2: North-east-facing section of Test Pit 2





Drawing No. 7.2: East-facing section of Test Pit 7

Drawing No. 6.2: West-facing section of Test Pit 6



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0 1 m

Scale at A4: 1:20

Figure 14: Sections of Test Pits 1, 2, 3, 6, and 7

N

Key:

- Sondage and trench edge
- Stone
- (106) Context
- Level AOD
- Feature
- Brick and Ceramic

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16.10 Salford Archaeology. Written Scheme of Investigation: Lower Ward, Caernarfon Castle. 2019

Lower Ward,

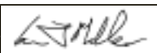
Caernarfon Castle,

Gwynedd

Written Scheme of Investigation for an Archaeological Evaluation

Project Name:	Lower Ward, Caernarfon Castle, Caernarfon, Gwynedd
Project Code:	TBC
Site Location:	Caernarfon Castle forms the south-western part of Caernarfon, overlooking the Afon Seiont, and is bounded by Castle Ditch and Castle Hill. The evaluation area comprises service runs within the Lower Ward between the Well Tower, Eagle Tower and Queens Tower
NGR:	247790 362665
Document Title:	Written Scheme of Investigation for an Archaeological
Document Type:	Written Scheme of Investigation
Version:	Version 2.0
Prepared for:	Cadw

Contact:	Ian Miller, Salford Archaeology, Centre for Applied Archaeology, University of Salford, Peel Building, Salford, Greater Manchester, M5 4DW
	0161 295 4862 / 07973 341 297
	i.f.miller@salford.ac.uk

Author:	Ian Miller	
Position:	Assistant Director	
Date:	21st March 2019	

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Salford Archaeology
Lower Ward, Caernarfon Castle, Gwynedd
Written Scheme of Investigation

1. Introduction

1.1 Circumstances of the Project

1.1.1 Buttress is working with Cadw and preparing proposals to remodel the King's Gate at Caernarfon Castle, Caernarfon (centred on NGR 247790 362665) to provide enhanced access and visitor facilities within the structure. The development proposals allow for the removal of modern fittings and partitions within the towers of the King's Gate, and the insertion of new fabric and infrastructure, including a new lift in the West Tower and a new drainage system. The castle is designated a Grade I Listed Building in 1983 (3814). It is also afforded statutory protection as Scheduled Monument (CN079), and in 1986, was designated as part of the Castles and Town Walls of King Edward in Gwynedd World Heritage Site.

1.1.2 Caernarfon Castle comprises the remains of a medieval castle built by King Edward I. The castle and town were established in 1283 to confirm his defeat of Llywelyn, Prince of Wales, and conquest of Gwynedd. As a result, Caernarfon became the centre of government for north Wales. The castle and walled town are situated on a rocky outcrop between the mouths of two rivers, the Seiont and the Cadnant, on the Menai Strait. The castle is believed to have been sited on an earlier Norman motte and bailey fortification. The site was subsequently controlled by the Welsh from about 1115 until Edward I's victory in 1283. Although nothing of this or the buildings erected by the princes of Gwynedd between about 1115 and 1283 survive. The ground plan and most of the upstanding remains visible today are those of the castle begun in 1283 by Edward I. Building was carried out in two phases (1283-1292) and (1294-1330). The first phase saw the construction of a castle ditch, castle walls and towers alongside town walls.

1.1.3 An initial scheme of archaeological evaluation that was required to inform the design details for the proposed development was carried out by Salford Archaeology in January 2019. This comprised the excavation of trial pits in the West Tower, the Prison Tower and in the moat, and provided an understanding of the potential impact of installing the new lift on below-ground archaeological remains. However, further information on the below-ground archaeological resource is required to inform the final design of the new drainage system, and it is thus proposed that further evaluation excavations are carried out along the proposed course of a new service trench within the Lower Ward between the Well Tower and the Eagle Tower, and between the Eagle Tower and the Queens Tower.

1.1.4 The evaluation will aim to establish the character, date, extent and significance of any archaeological remains beneath the existing ground surface in the Lower Ward, between the Well Tower, Eagle Tower and Queens Tower, in the proposed position of service runs. It is proposed that this is achieved via the excavation of six trial pits to depths of up to 1m in the locations shown on Plate 2, although it anticipated that an iterative approach will be necessary to take account on unforeseen ground conditions and logistical considerations. These intrusive archaeological works will require Scheduled Monument Consent.



Plate 1: The Eagle Tower (left) and Well Tower (right) with the Lower Ward between

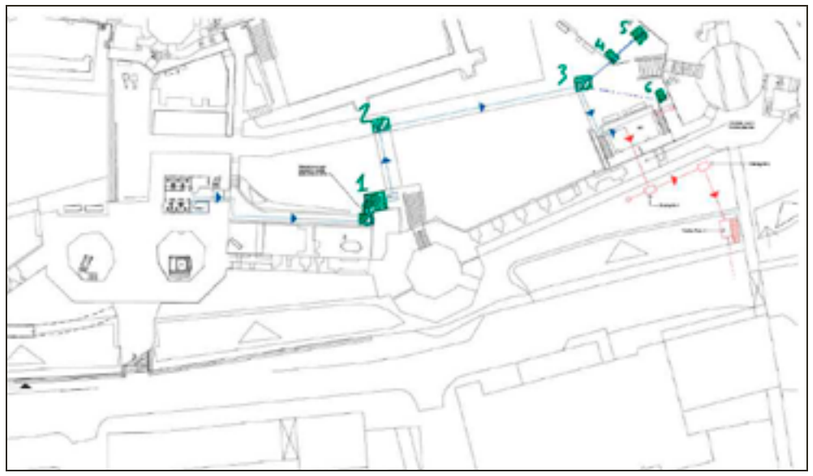


Plate 2: Indicative plan showing the proposed location of archaeological trial pits

Salford Archaeology
Lower Ward, Caernarfon Castle, Gwynedd
Written Scheme of Investigation

1.2 Purpose of the Document

1.2.1 An Archaeological Written Scheme of Investigation (WSI) is a comprehensive document detailing the requirements and methodological approaches of a programme of archaeological works, and is intended to meet the spirit and intent of the archaeological requirements, and comply in full with the conditions of Scheduled Monument Consent. An archaeological evaluation is defined by the Chartered Institute for Archaeologists (CIfA) as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their significance in a local, regional, national or international context as appropriate' (CIfA 2014a).

1.2.2 The WSI has been formulated in the light of relevant legislation on heritage, specifically the Historic Environment (Wales) Act of 2016, which was introduced to provide more effective protection to designated heritage assets, improve the sustainable management of the historic environment, and introduce greater transparency and accountability into decisions taken on the historic environment. The land use planning policies of the Welsh Government is set out in Planning Policy Wales (PPW), which is supplemented by a series of Technical Advice Notes (TANs) and Welsh Office Circulars. Chapter 6 of the PPW, entitled '*Conserving the Historic Environment*', provides policy for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Chapter 6 can be summarised as seeking to:

- preserve or enhance the historic environment, recognising its contribution to economic vitality and culture, civic pride and the quality of life, and its importance as a resource for future generations;
- protect archaeological remains, which are a finite and non-renewable resource, part of the historical and cultural identity of Wales, and valuable both for their own sake and for their role in education, leisure and the economy, particularly tourism;
- ensure that the character of historic buildings is safeguarded from alterations, extensions or demolition that would compromise a building's special architectural and historic interest; and to
- ensure that conservation areas are protected or enhanced, while at the same time remaining alive and prosperous, avoiding unnecessarily detailed controls over businesses and householders.

1.3 Scheduled Monument Consent

1.3.1 This WSI has been formulated to support an application for Scheduled Monument Consent. All archaeological work shall be carried out in strict accordance with the conditions articulated in the Scheduled Monument Consent.

2. Aims and Objectives

2.1 Academic Aims

2.1.1 The main aim of the archaeological investigation will be to establish the presence, character, extent, date and significance of any archaeological remains that survive in the targeted areas, and enable a strategy to be devised that will mitigate any potential impact of the development proposals on the archaeological resource. The archaeological investigation will involve the excavation of six trial pits at key locations along the proposed route of the new service trench. The precise location and dimensions of these trial pits may need to be amended slightly to take account of unforeseen ground conditions, although the over-riding premise will be to achieve the stated aims and objectives whilst minimising the extent of intrusive investigation and disturbance of below-ground deposits.

2.2 Objectives

2.2.1 The principal objectives of the archaeological investigation are:

- to establish, as far as is reasonably possible, the location, extent, condition, significance and quality of any surviving archaeological remains along the proposed route of the new service trench within the Lower Ward;
- to inform the design of the proposed new service run through the Lower Ward between the Well Tower and the Eagle Tower and to the south-east of the Eagle Tower between that and the Queens Tower;
- to establish the presence or absence of any archaeological remains to a maximum depth of 1m below the existing ground surface. This is the maximum depth of any service excavations with added tolerance;
- to provide sufficient information to enable an informed decision to be made about the need for any additional archaeological mitigation; and
- to make available the results of the work.

2.2.2 The aims and objectives of the project will be achieved via the excavation of six trial pits. The rationale for the location of each trial pit may be defined:

- *Trial Pit 1* will investigate an area where the proposed drainage run will need to turn corners (with rodding eyes), as well as steps being removed from the path and adjustments to levels. This part of the lower ward was occupied formerly by the kitchen range, and thus has archaeological potential;
- *Trial Pit 2* has been place at the high point of the proposed drainage run, where it will likely convert from pumped to gravity drainage, with a small manhole to allow for this. Ideally there will be an increase in depth of pipework at this point, so investigation of the potential depth of significant archaeological remains is critical to design development;

Salford Archaeology
Lower Ward, Caernarfon Castle, Gwynedd
Written Scheme of Investigation

- *Trial Pit 3* will investigate a likely position for a change in direction of the drainage run, together with the installation of a manhole;
- *Trial Pit 4* will be placed in the position of a suspected wall foundation, as suggested by the current delineation of the gravelled area. An understanding of the below-ground remains in this area is crucial to the design of proposed temporary catering pop-ups, which need power / water / data / drainage;
- *Trial Pit 5* is placed in the likely location of services supplies for the catering pop-up terminating;
- *Trial Pit 6* will investigate the likely location of the junction between the new service trench and the existing drainage infrastructure around the WCs.

2.2.3 Following the completion of the fieldwork element, a programme of post-excavation will be undertaken. This will comprise:

- *Post-excavation and Report Production:* the site records, finds and any samples from the excavation programme outlined below will form a checked and ordered site archive;
- *Archive Deposition:* the results of the excavation will form the basis of a full archive to professional standards;
- *Dissemination:* the information obtained from the evaluation will be disseminated in a manner appropriate to the significance of the excavated remains.

3. Method Statement

3.1 Trial Pit Excavation

3.1.1 The excavation of the trial pits will be undertaken using exclusively manual techniques; the only machinery required will be a pace breaker to remove modern concrete surfacing, and any plant required by the specialist sib-contractor for reinstatement purposes. The precise dimensions of each trial pit will be determined by ground conditions, although they will be excavated to a maximum depth of 1.0m below the modern ground surface, assuming that this would not necessitate the removal of demonstrably significant archaeological deposits or structures. The size of each trial pit will be minimised to that required to carry out manual excavation.

3.1.2 ***General Methodology:*** all archaeological work shall be conducted following the CIfA Standards and Guidance for archaeological excavation. Prior to the commencement of any excavation works, the location of the evaluation trenches will be laid out accurately with respect to the Ordnance Survey national grid. The location of the test pits below the stone flags will be determined by factors on site, but will be within the area demarcated on Plate 2. The position of the areas will then be scanned for any live services using a cable avoidance tool. The excavations will be scanned regularly as work progresses.

3.1.3 Pits and postholes will be subject to a 50% by volume controlled stratigraphic excavation. Sample excavation of larger features, such as ditches and gullies, will be sufficient to elucidate their character, extent, date and significance, with the excavation concentrating on any terminals and intersections with other features which would provide important stratigraphic information. The size of the excavated sample of any extensive deposits or homogeneous spreads of material will be agreed with Cadw. Structural remains will be excavated manually to define their extent, nature, form and, where possible, date. Any hearths and/or internal features will be 100% sample excavated to provide information on their date and function, and the extent of any associated floor surfaces will be determined.

3.1.4 All information identified in the course of the site works will be recorded stratigraphically. Results of the evaluation will be recorded on *pro-forma* context sheets, and will be accompanied with sufficient pictorial record (plans, sections and high-resolution digital photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

3.1.5 *Context Recording:* all contexts will be recorded using *pro-forma* sheets, and details will be incorporated into a Harris matrix. All written recording of survey data, contexts, photographs, artefacts and ecofacts will be cross-referenced from record sheets using sequential numbering.

3.1.6 *Photography:* a full and detailed photographic record of individual contexts will be maintained and similarly general views from standard view points of the overall site at all stages of the evaluation will be generated. Photography will be undertaken using high-resolution digital cameras. All frames will include a visible, graduated metric scale. Photographic records will be maintained on photographic *pro-forma* sheets.

Salford Archaeology
Lower Ward, Caernarfon Castle, Gwynedd
Written Scheme of Investigation

3.1.7 *Planning:* the precise location of all archaeological structures encountered will be surveyed by either GPS or Total Station Theodolite linked to a pen computer data logger. This process will generate scaled plans within AutoCAD, which will then be subject to manual survey enhancement. The drawings will be generated at an accuracy appropriate for 1:20 scale, but can be output at any scale required. All information will be tied in to Ordnance Datum.

3.1.8 *Human remains:* human remains are not expected to be present, but if they are found they will, if possible, be left *in-situ* covered and protected. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Ministry of Justice. If human remains are identified, the Ministry of Justice and curator will be informed immediately.

3.1.9 *Finds policy:* finds recovery and sampling programmes will be in accordance with best practice (following current Chartered Institute for Archaeologists' guidelines) and subject to expert advice in order to minimise deterioration. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC).

3.1.10 Initial finds processing will be carried out on site, and batches of processed finds will be transferred regularly to Salford Archaeology's finds laboratory at the University of Salford. Metalwork recovered from stratified contexts will be subject to X-radiographic screening.

3.1.11 *Environmental Sampling:* if archaeological features are identified, bulk samples (40 litre) will be taken from contexts in sealed plastic buckets from all secure deposits. These will be assessed for charred and waterlogged plant remains and other possible biological indicators for example invertebrate remains and fish bone. If any waterlogged deposits are identified, either from archaeological features, such as moat fills, they will be sampled for pollen and other biological indicators with cores or monolith tins.

3.1.12 Subject to the results of the evaluation, an assessment of any environmental samples will be undertaken by appropriate specialists, who will examine the potential for further analysis. The assessment would examine the potential for macrofossil, arthropod, palynological and general biological analysis.

3.1.13 *Metal Detecting:* the spoil heaps generated from the excavation will be scanned with a metal detector to enable full recovery of any metal objects. A Section 42 licence for metal detecting will need to be obtained as part of the Scheduled Monument Consent.

3.1.14 ***Backfilling:*** all of the trenches will be backfilled and reinstated upon completion of the evaluation. Reinstatement will be carried out by an appropriate sub-contractor appointed by Salford Archaeology. It is proposed that any broken-out concrete will be laid into the base of the trench, above a visquene covering, and then backfilled over with arisings, compacted, and finally covered with gravel. The flagstone surfacing will be re-laid following backfilling and compaction, whilst the gravel surface will be stockpiled separately and retained. The area will then be backfilled with arisings, compacted, and the retained gravel re-laid over the backfill. All reinstatement will be carried out by an approved sub-contractor to a high standard sufficient for safe foot traffic.

4 Health and Safety

4.1 Health and Safety

4.1.1 Full regard will be given to all constraints during the course of the project, and all relevant Health and Safety legislation, CDM, COSHH regulations and codes of practice will be respected. The University of Salford provides a Health and Safety Statement for all projects and maintains a Safety Policy. Salford Archaeology is advised on its Health and Safety matters by the University of Salford, who provide ongoing advice on health and safety matters to all departments in the organisation. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Federation of Archaeological Employers and Managers (FAME), and in accordance with current legislation, including:

- The Health and Safety at Work Act (1974);
- Management of Health and Safety at Work Regulations (1999);
- The Construction (Design and Management) Regulations (2015);
- The Control of Asbestos Regulations (2006);
- Construction (Health, Safety and Welfare) Regulations (1996);
- The Health and Safety (Miscellaneous Amendments) Regulations (2002);
- The Control of Substances Hazardous to Health Regulations (2002);
- The Health and Safety (First-Aid) Regulations (1981);
- The Regulatory Reform (Fire Safety) Order (2005);
- The Provision and Use of Work Equipment Regulations (1998);
- Lifting Operations and Lifting Equipment Regulations (1998).

4.1.2 A risk assessment and will be produced by the archaeological contractor and submitted to the Client prior to the commencement of any on-site archaeological works. Once approved, this WSI will be used for the purposes of a method statement. All Salford Archaeology staff associated with the excavation will be given a copy of the method statement and the risk assessment prior to the beginning of the works and will be required to read both documents.

4.1.3 Salford Archaeology undertakes to safeguard, so far as is reasonably practicable, the health, safety and welfare of its staff and of others who may be affected by our work. This applies in particular to providing and maintaining suitable premises, and providing all reasonable safeguards and precautions against accidents. The University of Salford will also take all reasonable steps to ensure the health and safety of all persons not in their employment, such as volunteers, students, and members of the public.

4.1.4 At present the profession of Archaeologist is largely covered by the CSCS, Construction Related Organisation CRO White Card for Archaeological Technician (Code 5363); other cards are available for site visitors etc. For this all Salford Archaeology staff likely to undertake fieldwork must pass a CITB Health and Safety Test at least to operative level. Where a member of staff has not yet received their card they will produce a certificate to prove that they have passed the test.

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4.1.5 ***Personal Protective Equipment (PPE):*** all staff will wear PPE at appropriate times dictated as by the Senior Archaeologist on site. All Salford Archaeology staff are supplied with the following PPE:

- Safety Helmets (EN397);
- Ear Defenders (EN 352-3);
- Safety spectacles (EN166);
- Goggles (Chemical BSEN 166 Type 3);
- Dust masks plain and valved (EN149 2001);
- Disposable overalls (Type 5/6 disposable EN340);
- Hi-visibility vests (EN471);
- Gloves Nitrile and latex disposable, PVC, EN374;
- Heavy-duty nitron rubber gloves (EN420, 388);
- Safety footwear - steel toecap and mid-sole boots and Wellingtons EN345-47.

4.1.6 ***Services (Gas, Electricity, Water, Sewers, Telecoms):*** it is the duty of the Client to provide all information reasonably obtainable relating to any contamination or live services present on site prior to the commencement of the programme of archaeological works.

4.1.7 Service will be inspected closely prior to the commencement of any works. The areas targeted for excavation will be scanned using a cable avoidance tool before any excavation commences.

4.1.8 No member of Salford Archaeology staff will touch or otherwise interfere with a live service even if declared ‘safe’. In the event of the accidental disruption of a live service by archaeologists, the Salford Archaeology Senior Archaeologist will inform both their project manager and the Client and, when appropriate, call the relevant emergency number. Any underground service not previously identified which is encountered during excavation will be assumed to be live and will need to be made safe by the Client before further excavation. Where for whatever reason making safe of under- or over-ground services does not happen, Salford Archaeology may need to remove its staff from the site or an area.

5 Other Matters

5.1.1 ***Project Monitoring:*** the aims of monitoring are to ensure that the archaeological works are undertaken within the limits set by the Written Scheme of Investigation, and to the satisfaction of Cadw Inspectorate. Reasonable access to the site will be granted to representatives of Cadw Inspectorate, who will need to be satisfied, through site inspection, that the scope and practice of the archaeological works are being conducted according to professional standards and in accordance with any agreements made.

5.1.2 As a minimum requirement, Cadw will be given a minimum of one week's notice of work commencing on site, and will be afforded the opportunity to visit the site during and prior to completion of the on-site works so that the results of the fieldwork can be assessed.

5.1.3 Salford Archaeology will notify Cadw of any discoveries of archaeological significance so that site visits can be made, as necessary. Any changes to this agreed WSI will only be made in consultation with the Client and Cadw.

5.1.4 ***Contingencies:*** in the event of encountering complex deposits and/or artefacts during the evaluation that require recording and immediate recovery, it may be necessary to delay works whilst the proper investigation and recording takes place. In the event of archaeological discoveries the treatment of which (either arising from the volume/quantity of material and/or the complexity/importance of the material) is beyond the resources deployed, a site meeting/telephone consultation will be arranged with Cadw. The aim of the meeting will be to confirm that an archaeological find has been made for which the resources allocated to the evaluation are not sufficient to support treatment to satisfactory and proper standard and identify measures which would be sufficient to support treatment to a satisfactory and proper standard.

5.1.5 ***Working Hours:*** normal working hours are variable between 7.30 am and 6.00 pm, Monday to Friday. It is not normal practice for the University of Salford staff to be asked to work weekends or bank holidays, and should the Client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

5.1.6 ***Insurance:*** the University of Salford has professional indemnity to a value of £50,000,000, employer's liability cover to a value of £50,000,000 and public liability to a value of £50,000,000. Written details of insurance cover can be provided if required.

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6 Report and Archive

6.1.1 ***Report:*** a draft copy of a report will be submitted for comment within six working weeks of the completion of the fieldwork. This will present the results obtained from the archaeological evaluation, and will include:

- a title page detailing site address, eight-figure NGR and a site location plan, author/originating body, client's name and address, and the planning application number;
- full content's listing;
- a non-technical executive summary of the findings of the fieldwork, including the nature of the development and the date that the work was carried out;
- a description of the archaeological background;
- an account of the historical development of the site;
- a description of the methodologies used during the fieldwork;
- a description of the findings of the fieldwork;
- plans of the areas investigated, showing the archaeological features exposed, tied into the national grid;
- appropriate photographs of specific archaeological features;
- stratigraphic matrices for the various areas examined;
- initial assessment reports by specialists;
- a consideration of the importance of the archaeological remains present on the site in local, regional and national terms;
- recommendations for further investigation of the site in advance or, or during, the proposed construction work;
- a complete bibliography of sources from which data has been derived.

6.1.2 A bound paper copy of the report and an archive CD will be sent to Gwynedd Archaeological Trust for inclusion into the Regional Historic Environment Record (HER), and to the National Monument Record database held by the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMW).

6.1.3 ***Archive:*** the results of the archaeological investigation will form the basis of a full archive to professional standards, in accordance with current RCAHMW guidelines (RCAHMW 2017), and current CIfA standards and guidance for the creation, compilation, transportation and deposition of archaeological archive (revised December 2014). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects (CIfA 2014c).

6.1.4 The archaeological archive will consist of the following:

- All original records created throughout the course of the project;
- All original drawings, whether created during fieldwork or post-investigation;
- Indexes to the drawings;
- Indexes to the photographic archive;
- All digital material;
- Digital material created from written, drawn or photographed original records;
- The final evaluation report;
- A list of contents of the archive.

6.1.5 The location of the finds archive will depend on their quantity, significance and ownership. The final location will be given in the report.

6.1.6 ***Dissemination:*** as a minimum, the information will be finally disseminated through the deposition of the archive, and a final report at the County Historic Environment Record. A digital copy of the archive will also be sent to the RCAHMW, as per their guidelines. In the event of significant remains being encountered, however, a higher level of dissemination may be required, including a summary of the results being prepared for publication in *Archaeology in Wales*.

6.1.7 Throughout the course of the evaluation trenching, Salford Archaeology staff will allow time to engage with any members of the public that visit the site to explain the purpose and emerging findings obtained from the archaeological investigation. The details of this public engagement exercise will be finalised after further discussion with Cadw, although it is anticipated that there will need to be arrangements in place for Welsh language communication.

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7. Timetable

7.1 It is anticipated that the excavation of the six trail pits and reinstatement will be completed within a three-week period.

7.2 A draft report will be submitted to the Client and Cadw for comment within six weeks of completion of the fieldwork. The project archive will be deposited with the receiving museum (where applicable) within six months of completion of the fieldwork.

8. Staffing Proposals

8.1 The project will be under the overall charge of **Ian Miller BA FSA** (Assistant Director, Salford Archaeology) to whom all correspondence should be addressed. Ian has over 28 years' experience of commercial archaeology. His role will be to ensure that the Written Scheme of Investigation is implemented within the framework of the Project Objectives. He will be responsible for all aspects of staff and resource logistics, ensuring the smooth running of the project programme. Ian holds a current valid SMSTS certificate.

8.2 **Oliver Cook BA** (Project Supervisor, Salford Archaeology) will fulfil the role of Site Director, taking responsibility for the day-to-day running of the trial pit excavation. Oliver has considerable experience of archaeological evaluations and excavations of all periods, including very recent excavations within the curtain wall of Lancaster Castle in Lancashire and Newark Castle in Nottinghamshire, and the initial investigations at Caernarfon Castle in January 2019. Oliver is a qualified first aider and holds current valid certificates in SSSTS, Cable Avoidance and Asbestos Awareness.

8.3 It is not possible to provide details of specific technicians that will be involved with the fieldwork at this stage, but all shall be suitably qualified archaeologists with proven relevant experience. It is anticipated that one technician will be required to support Oliver for the duration of the evaluation.

8.4 Assessment of the finds from the evaluation will be undertaken under the auspices of Salford Archaeology's in-house finds specialist, **Samantha Rowe BA MA**. Samantha has extensive knowledge of all categories of artefacts, but specialises in the post-medieval ceramics, including clay tobacco pipes. Medieval pottery will be examined by Ian Miller, who has considerable experience of medieval ceramics. Other specialist advice will be sought from the following, if required:

- *Iron Age / Roman Pottery:* Jane Timby (independent ceramics specialist);
- *Glass:* Mandy Burns (University of Salford);
- *Animal Bone:* Andrew Bates (SLR Consulting);
- *Flints:* Dr Andrew Myers (University of Salford);
- *Slag, burnt clay, hammerscale:* Dr Tim Young (Geoarch);
- *Waterlogged material / Palaeo-environmental:* Dr Simon Hutchinson (University of Salford);

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9. References

Chartered Institute for Archaeologists. 2014a *Standards and Guidance for Archaeological Evaluation.* Reading

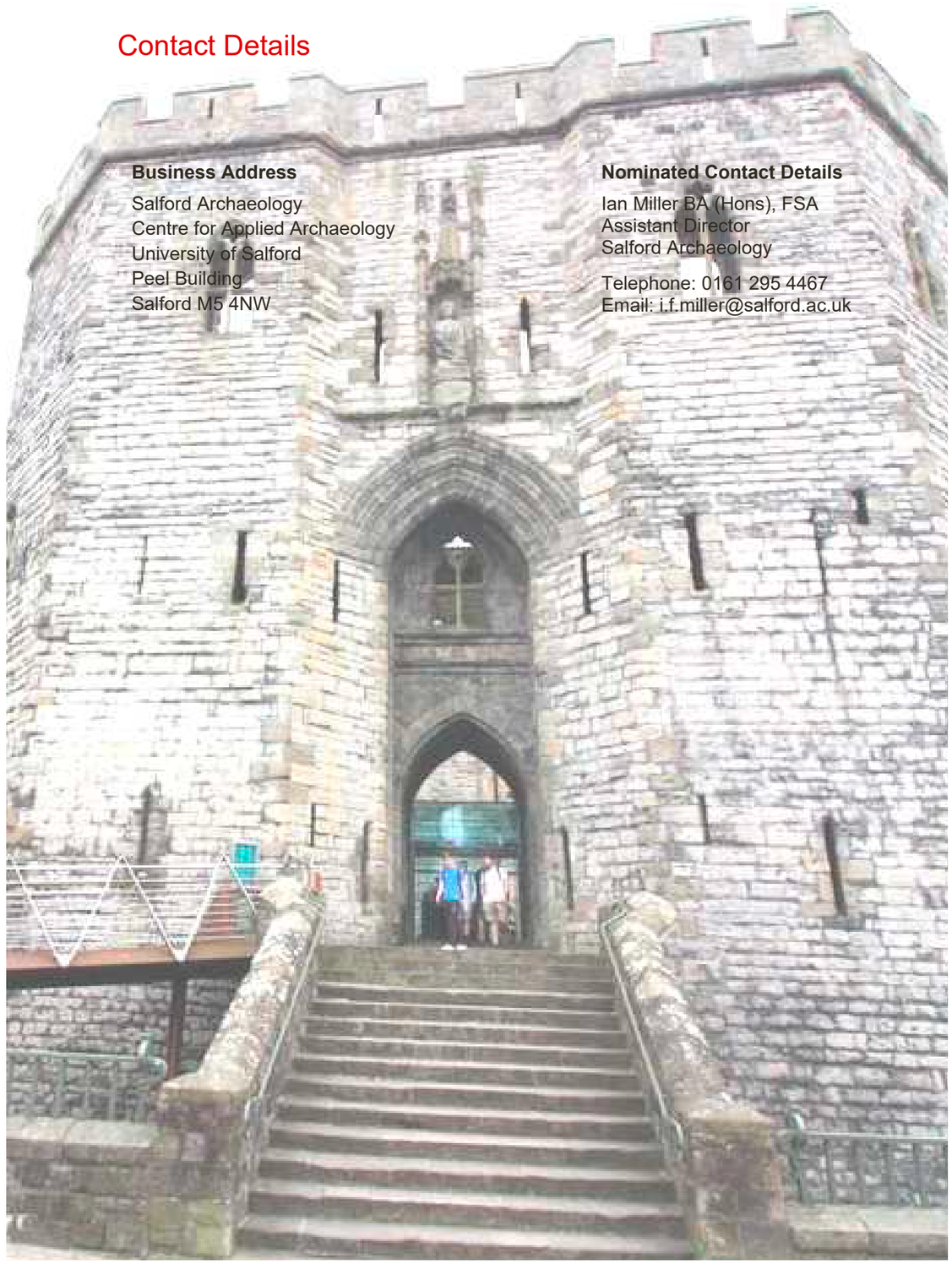
Chartered Institute for Archaeologists, 2014b *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Material*, Reading

Chartered Institute for Archaeologists, 2014c *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives,* Reading

Historic England, 2015 *Digital Image Capture and File Storage Guidelines for Best Practice*, London

RCAHMW, 2017 *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017*

Contact Details



Business Address

Salford Archaeology
Centre for Applied Archaeology
University of Salford
Peel Building
Salford M5 4NW

Nominated Contact Details

Ian Miller BA (Hons), FSA
Assistant Director
Salford Archaeology

Telephone: 0161 295 4467
Email: i.f.miller@salford.ac.uk

University of Salford MANCHESTER

The Centre for Applied Archaeology

REGISTERED ORGANISATION CIfA

CONSULTANCY



DESK BASED ASSESMENTS



WATCHING BRIEF & EVALUATION



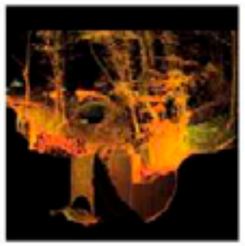
EXCAVATION



BUILDING SURVEY



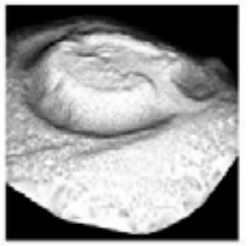
3D LASER SCANNING



COMMUNITY INVOLVEMENT



LANDSCAPE SURVEYS



GEOPHYSICAL SURVEYS



WORKSHOPS & VOCATIONAL TRAINING



RESEARCH PUBLICATIONS



SEMINARS, DAYSCHOOLS CPD EVENTS



Centre for Applied Archaeology (C/AA), School of the Built Environment, University of Salford
Joule House, 1 Acton Square, The Crescent, Salford, M5 4NW
Telephone: 0161 295 3818 email: a.thompson@salford.ac.uk

16.11 PlacEd. Caernarfon Castle Engagement. 2018.

EVALUATION: Caernarfon Castle Engagement



Introduction:

Cadw, the Welsh Government's historic environment service, propose to improve the visitor facilities within the Kings Gate at Caernarfon castle. Buttress Architects were appointed to undertake the project and have been working on proposals for several years.

Plans include a focus on improved accessibility, connecting current entrances to underused areas to incorporate new orientation spaces for the public, improvements to the flow of the shop space and a new viewing platform on the second floor.

The concept looks to insert new interventions horizontally and vertically into the three towers, while also providing vertical access from the entrance level to the new second level viewing platform. Key interventions are as follows:

- **Basement:** New visitor toilet facilities including a 'changing places' WC with level access alongside storage areas.
- **Ground floor:** New floors and a lift will be inserted within the empty tower, allowing access to the lift from the current glazed entrance and forming a visitor welcome point with new interpretation. The shop is to remain in its current location, with improvements being made to help visitors to move around the space and increase the product offer
- **First floor:** A catering offer and associated seating is proposed on the first floor of each tower. The new floors will help to increase floor area and improve circulation at this level. Alongside the catering offer, one of the floors will provide accommodation for an education / learning room.
- **Second Floor:** Accessed via the new lift, a viewing platform is proposed allowing space for visitors to dwell and observe the full castle. This will allow access to the windows, arrow loops and murder holes positioned on the main elevation.

PLACED were invited to two deliver public engagement events to gain local feedback regarding proposed plans, in addition to an online survey. In total, 150 people shared their views. The following report provides an analysis of the findings.

www.placed.org.uk

Email: info@placed.org.uk

Twitter: @PlacedEd
Instagram: @Placed_Ed
Facebook.com/place.org

PLACED
PLACE EDUCATION

Engagement Approach: Pop-up events

The first engagement event was delivered on Monday 26th November 2018 in Castle Square, adjacent to the castle. This event was outdoors and based around Ed, the PLACED campervan and their gazebo, creating visual impact within the square. Unfortunately, due to high winds and rain, the second event had to be moved to a café on Castle Square on Tuesday 27th November. Each event ran from approximately 11am-5.30pm.

Two staff members from PLACED were present on both days, working alongside a representative from Cadw, and a local Welsh speaking interpreter. A member of staff from Buttress supported the Monday event. The team engaged with approximately 130 people, including local residents, businesses, staff from the castle and visitors to Caernarfon. The high level of engagement was a very positive outcome over the two days, in particular on the first day through Ed the campervan.

The events focussed on informing public about the proposed changes and obtaining feedback or concerns about the plans. Interactive, visual activities and conversation were used to record feedback, with questions and precedent images offering the chance to feedback on plans, provide inspiration and create open dialogue. Tools utilised were as follows:

- A1 and A0 information boards showing the proposed plans for the Castle, with a range of image types, provided by Buttress
- Additional A1 panels and a ping-pong ball voting system provided by PLACED with open questions to capture broad feedback on whether the public felt the plans would be an improvement to the visitor experience
- A 3D model of the proposed plans provided by Buttress and displayed during Monday's event, enabling participants to visualise changes
- QR codes that enabled to access 3D visualisations of proposals.

The above was supported with dialogue and discussion throughout with the team.



Summary of Findings

Question 1: What opportunities will these changes bring to Caernarfon?

This question was presented at the top of an A1 panel and participants were invited to write their response on a post-it note and stick this on the board. This approach, alongside conversation with participants, allowed people to consider the potential benefit of plans to the town and view the comments of others who had participated. In total, 36 comments were received.

Statements were grouped into several categories, as can be seen below along with examples of comments received. The percentage indicates how many comments were received in relation to each category.

Category	%	Selected Comments
Ideas for activities	31%, 11 votes	- *Bring invited speakers, lecturers, book launch for adults!* - *Invite other businesses / organisations in to use the spaces… art, events, music etc* - *More activities encourage people to stay longer*
Support for the project	14%, 5 votes	- *Great… embrace change!* - *Positive that Cadw is asking for people's views* - *Carry on! Go for it!* - *Should be more of this! (type of project)*
Design	14%, 5 votes	- *Materials used should be in keeping with those around at the time* - *Like the lift but not the staircase (if steel)* - *I like the innocuous design* - *Agree with café and shop. Lift unnecessary. Marquee on grounds*
Accessibility	11%, 4 votes	- *Fantastic plans! More accessible* - *Access improvement is good* - *Lift and disabled access good*
Benefits to tourism	11%, 4 votes	- *Need to encourage tourism from further afield than Wales* - *Excellent. Will encourage people to stay longer* - *Like all the ideas! It's a social service – bringing people in and getting them to spend*
Need for marketing	11%, 4 votes	- *Not enough publicity. Need to invest in this!* - *Needs to be marketed outside Caernarfon* - *More should be done for the central spaces (activity). Need some good marketing*
Benefits to local community	8%, 3 votes	- *Want more local people getting involved and volunteer* - *Place for community not just tourists* - *Something more going on inside. Make it part of the community*

Overall, comments were very positive and the above demonstrates that people are enthusiastic about the potential of improvements to the castle. They believe investment will benefit both the community directly and the tourism offer.

There were several comments that noted physical change needs to be matched by influential marketing and a strong activity programme.

Receiving the most comments, the 'ideas for activities' category shows the connection and involvement local people feel to the castle, and the potential they see in broadening the ongoing community offering available.

Question 2: Do you have any concerns about the proposals that you would like to share?

The format of this activity was the same as Question 1, again allowing participants to provide open responses to gather opinions without limitation. In total, just 18 comments were received.

Statements were grouped into several categories, as can be seen below along with examples of comments received. The percentage indicates how many comments were received in relation to each category.

Category	% & Votes	Selected Comments
Negative impact on local business	33% (6 votes)	- *The money is being wasted. Money should be spent on the shops* - *Café will detract from local business. They will spend less locally* - *Should be left as it is. Money should be spent on the high street.*
Design / retaining original design	33% (6 votes)	- *Must be sensitive to existing structure* - *Do not overly modernise the castle interior* - *Don't like idea of café. Should be kept an authentic castle experience.*
Community focus	11% (2 votes)	- *More events for local people not just tourists* - *Improvements should be for everyone, not just external visitors*
Accessibility	11% (2 votes)	- *Good that wheelchair can access BUT what are the limits in terms of disability?*
Other	6% (1 vote)	- *Capacity an issue on delivering activities*
Safety	6% (1 vote)	- *Some windows need making safer (especially for children)*

Most concerns focussed on the potential for the new café to draw visitors away from established businesses in the area, and a definite view that any new interventions and materials should be in keeping with the current structure and historic appearance of the castle.

Concerns were responded to on the day, by the engagement team providing further information and reassurances. Participants were informed that many of their concerns have already been examined, and they were reassured to hear that the issues raised have been seriously considered and mitigated through the development to date.

It is also of note that double the number of positive comments were received about the scheme; 36 positive contributions to 18 negative contributions.



Question 3: What would further enhance the experience of visiting the Castle?

To gather ideas and feedback regarding potential new activities and events which would enhance the experience of visiting the castle, 'inspirational images' were displayed. Participants were invited to indicate those they most liked by placing a green sticker next to the image, and those they did not think would be suitable with a red sticker. Space was also provided for comments explaining their choice below the image, as well as space for people to provide their own ideas.

The following feedback was gathered from this activity:

- Images which showed children's activities, including a rucksack with activities inside, an adventure scrap book, treasure hunts, dress up boxes, and a historical area for older children received votes
- The use of technology appealed to some. This includes virtual reality for education purposes, augmented reality using mobile phones and a virtual tour app that people could use at home before coming to act as a promotional tool. Digital feedback forms and a paid app for adults were also suggested
- There several votes for the image showing historical enactment
- There were limited comments about more traditional interpretation ideas. One comment noted the potential to highlight and showcase the construction of the castle, and another suggested creating tactile maps.

Other comments suggested:

- Using the space for events e.g. community events, film screenings, banquettes, festivals. This was felt by some as a way of increasing community ownership, including developing links with the local businesses. However, one person noted space may be limited and it is not as big as some may think.
- Workshops teaching traditional skills, with candle making as the suggestion.

Staff Comments:

Several staff who work in the Castle came to the engagement event and spoke to the team. Their comments highlighted concerns over the flow of the entrance way and some maintenance concerns.

- When it rains a lot of rain comes through the staircase next to the shop
- Worried about congestion in reception with people coming through in the masses in different directions
- Welcome person for tour groups after group has entered. 'Concierge stand'!
- Entrance – want people through as fast as possible by increasing online ticketing including tour groups.

Whilst there was interaction with this question, the focus of discussion remained with the proposals, indicating this was the more pressing subject for most. More detailed discussion has been undertaken and responded to with staff separately.



Question 4: Will the proposed changes improve the visitor experience?

This activity aimed to gather a public reaction to whether the proposed plans would improve their visit to the castle. Participants were given the option to vote within the categories shown below by placing a ping pong ball in a plastic tube against the statement they felt represented their attitude.

Across both days public reaction was overwhelmingly positive, with 94% of people in agreement that plans would improve the visitor experience. A total of 50 votes were received.

Category	%
Strongly agree	76%
Agree	18%
Not sure	4%
Disagree	2%
Strongly disagree	0%

Online Survey

Alongside the pop-up events an online survey was also available to provide opportunity for a wide audience to engage with and feedback on the proposals, and provide details of their own ideas for enhancement of the visitor experience at the castle. This engagement tool was informed by engagement at the pop-up events and contained similar questions. The survey received 20 respondents between late March and 12th April 2019.

The survey began with an introduction to the proposals, information of the consultation events undertaken and the option to consent to their views being anonymously processed by Cadw to help inform the Kings Gate project. A Welsh and English language version were available.

Much of the feedback and themes that arose in the analysis of the survey reflect those found in the public events.

Q1: What opportunities will these changes bring to Caernarfon?

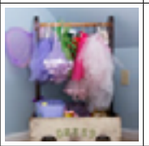
This question was in the form of open comments. 16 people completed this question. Reponses were mostly positive, with the remaining unsure of the impact these plans will have, rather than a negative response. A selection of comments is shown below, grouped into common themes. The percentages reflect the total number of respondents that referred to each category.

Theme	%	Comments
Plans will boost tourism	50% (8 comments)	- *Increase in tourists and possible new job roles* - *Possibly bring new audiences who may not have thought or been able to visit before. Introducing modern facilities to enhance a historic experience* - *It will enable visitors and local people the opportunity to enjoy the castle more than they do already*
Access will be improved	31% (5 comments)	- *Increased access is great* - *Improved visitor numbers and experiences. Ability to boast inclusiveness of people with disabilities. Provide a needed investment in one of the crown jewels of North Wales* - *It will allow even more people to experience the history of this wonderful castle*
Unsure of impact	19% (3 comments)	- *Too ambiguous, too early in survey to comment on what the changes will bring to Caernarfon*

Q2: What would further enhance the experience of visiting the Castle for young people and families?

This question invited people to focus on what interactive activity they would like to engage with during their visit. Respondents were given a selection of images, each with a brief description, representing key activities that could be delivered at the castle to enhance the visitor experience. People could select as many images as they wished.

The percentage shows the percentage of the total number of respondents that selected that image. 20 people completed this question.

Theme	Image	%
Historical films		70%
Scavenger hunts		60%
Plays and performances		60%
Themed play		55%
Virtual reality kits		55%
Fancy dress for children		50%
Interactive models and sets		40%
Activity bags / packs for children		35%
Outdoor play		30%

Q3: What types of interpretation display do you think would enhance the visitor experience at the castle?

Again, a selection of images with a brief description were provided to select how visitors would most like to receive information at the castle. A significant majority showed interest in technology such as apps and virtual reality, rather than sign posts or large display boards. This can be seen in the percentages below.

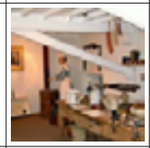
People could select as many images as they wished. The percentage shows the percentage of the total number of respondents that selected that image. 20 people completed this question.

Theme	Image	%
Information apps		75%
Virtual / augmented reality apps		70%
Modern Display board		60%
Interactive sound & visual displays		60%
Traditional display structure		50%
Interactive Displays		45%
Feedback wall		35%
Signage posts		35%
Large installation		25%

Q4: What types of exhibitions or displays do you think would enhance the visitor experience at the Castle?

Respondents were again given a selection of images from which they could select as many as they liked. These images focussed on various exhibition styles and displays. Extremely popular were interactive exhibitions such as re-enactments or tactile exhibits.

People could select as many images as they wished. The percentage shows the percentage of the total number of respondents that selected that image. 20 people completed this question.

Theme	Image	%
Re-enactments		80%
Hands on exhibits		75%
Reconstruction		75%
Costume displays		65%
Museum-style exhibition		55%
Historian		55%
Construction displays		50%

Q5: Have we missed anything?

This question was in the form of open comment and invited respondents to share any ideas for activities, displays and events they would be interested to see which the survey may not have covered. Comments cover a range of aspects to do with the visitor experience. 11 people answered this question and all comments received are shown below. Many of these responses reflect similar views to those expressed during the pop-up events.

- Undercover play area with seating and cafe
- Refurbishment of rooms as they would have been in Edward 1st's time
- Nope, all sounds great
- More use of modern technology to interact with all visitors, not just children. Virtual reality timeline of the castle construction, and a 3D imaging of what it would have looked like completed. Also, enhance this into the walled town, possibly the extended town and impact of Segontium and the modern age, to show what effect 'progress' has on the landscape. It may help children (and adults) appreciate history...
- Maybe the odd person dressed in period costume in each area, who was available to do a tour or simply chat about each area within the castle
- Sound and light displays would be interesting
- I have been concerned about the apparent trend that seems to focus entirely on attracting families with children. While it is good to attract them, I feel rather forgotten or ignored, being a slightly senior adult without children. I would like to see more displays and activities aimed at adults
- Focus on the real people who lived and worked there through history. What challenges they faced etc.
- Plays, concerts and activities that are well advertised in every media
- Music events

Q6: What is your connection or interest in the Castle or project?

This question served to understand the respondent's relationship as a visitor to the castle, whether they lived or worked nearby or were visiting from further afield. Respondents could select more than one option that applied to them. Although 30% of respondents were visitors or tourists, views gathered from this survey are majorly of those living or working locally in Caernarfon or in a nearby town. Those who selected 'other' stated themselves to be a Cadw member or castle guide.

Answer	%
Resident of Caernarfon	35%
Visitor / tourist	30%
Live in a surrounding village / town	25%
Work in Caernarfon	15%
Other (please specify)	15%
Business owner	5%



Q7: Is there anything else you would like to tell us?

This was an optional comment question allowing respondents space to share anything else relevant to them. All comments received are shown below.

- I enjoy visiting the castle but I have mobility problems so cannot enjoy things that others can due to steps etc. It would be good to have more things on ground level. A place to purchase refreshments would be fantastic. I could sit and enjoy the beauty of the place, quietly, while my family wander around. It would be fantastic to have historical re-enactments and displays. To keep younger children busy I think that VR, interactive activities is a great idea
- As a teacher, I'm glad you seem to be thinking of providing better facilities for e.g. school visits. Role play, re-enacting and hands on activities are important and I've always felt that the education provision needed improving. How about utilising the now empty Oriel Pendeitsh across the road as an education base?
- What I wouldn't want to see are large areas set aside for young children - the castle isn't a playground
- I am concerned about the design's impact on the significance of the castle as an ancient monument and WHS. I would expect Cadw to lead by example and prioritise high-quality, conservation-led design which enhances a site's significance. I hope there is no conflict between Cadw's role as Wales' historic environment body and its role as a promoter of heritage tourism in Wales
- If you want to keep people in the attraction longer you need a food court. Somewhere to buy food but also where people can eat their picnics
- The lift must be more discrete else Charles (not that his opinion would matter) would be well within in citing a new 'Carbuncle' affront to an historical site. It looks awful!
- Very happy and encouraged to see that interest is taken in maximising the potential of the castle. It is a massively unused resource throughout North Wales
- Unsure how you can have disabled access while maintaining integrity of the castle as a genuine historic monument

Summary

The engagement through both the pop-up events and the online survey indicate significant support for proposals to enhance the castle and visitor experience.

There was a clear fondness for the castle amongst residents. There appears to be real scope to build on this and use the investment as a way of increasing the involvement of the local community with this unique asset, from volunteering opportunities, events and activity programmes to help encourage repeat visits. People were pleased about increased accessibility and the impact this will have on them as individuals or for tourism.

There was initially some concern that plans may look too 'modern' and the historical appearance of the castle may be too altered. However, most responded well when talked through proposals at the events, feeling that a sensitive approach was in fact being taken. Whilst many were pleased that changes would attract a wider audience, in particular families, some noted a need to not ignore the older audience in an effort to attract young children.

Overwhelmingly, survey respondents are happy about the proposed plans and can see a beneficial impact to the castle experience and the area and local businesses.



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16.12 Phil Chambers. Access Audit. 2018.

Caernarfon Castle on-site Access Meeting 27th November 2018

Phil Chambers, an access consultant specialising in inclusive access to heritage buildings and landscapes was invited to meet with the architect responsible for the development and restoration project of Caernarfon Castle, a medieval fortress which is managed by CADW. The main aim of the meeting was to determine if it is feasible to provide wheelchair access to the proposed lift shaft location and therefore to provide wheelchair access to the Kings Gate ramparts.

Access to Caernarfon Castle

There is on street and designated accessible “blue badge” parking bays at Castle Ditch and Castle Square, a distance of approximately 150m. The main visitor entrance has a graduated ramp leading from Castle Ditch.



Figure 1 Access Ramp to Castle Entrance

Access to Proposed Situation of Lift Shaft

The proposed location has a door width of 75cm which will provide access for most standard wheelchairs (See Appendix 1). It would increase the useable width if it is possible to remove the heavy door. It will also be necessary to modify the doorway, which is stepped to provide flush access, between the two levels. There will be limited manoeuvrability within the doorway leading to the proposed lift, although there is space of approximately 100cm between the internal walls which should permit reasonable circulation for wheelchair users.



Figure 2 Doorway Access for Lift

It was not possible to gain wheelchair access at the time of visiting, due to the need for modifications first. However, it was possible to gain wheelchair access to the opposite tower doorway which has a very similar dimension, but with the added advantage of a much lower step.

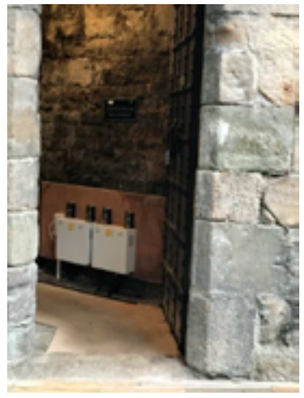


Figure 3 Similar Dimension Doorway Accessed by Wheelchair User

As well as planning to create a wheelchair accessible lift facility, the development plan also includes provision for a slightly modified, due to space available, Changing Places type accessible toilet facility which will enable more disabled people to visit Caernarfon Castle for longer periods of time. The proposed services will complement the existing ramped access; good firm paths and the outdoor platform lift which is designed to transport wheelchair users over two levels in the grounds.



Figure 4 Outdoor Platform Lift

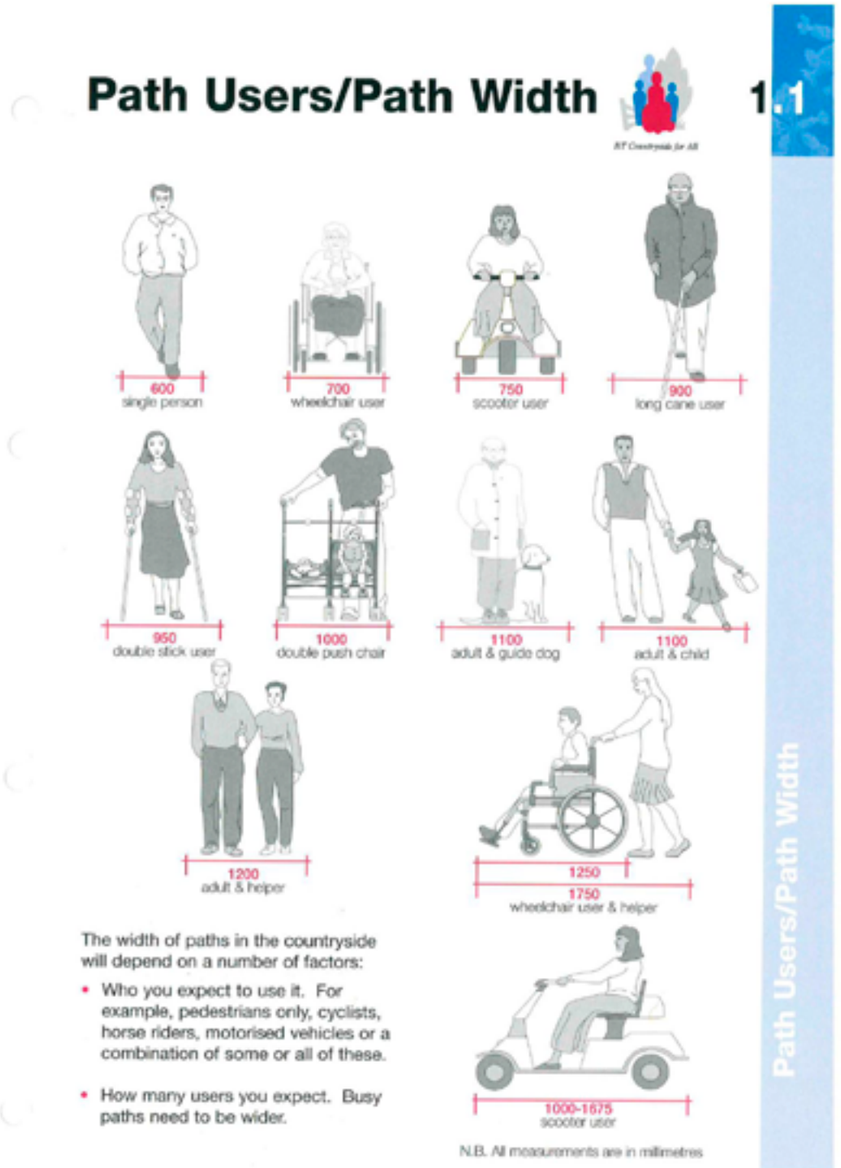
Conclusion

Based on the knowledge gained during the visit; and considering the constraints presented by the architecture of the historic asset it is possible to hypothesise that it will be feasible to provide reasonable access, to the proposed lift; contingent on some small modifications to the existing doorway and stepped access. The provision of a lift to accommodate standard wheelchairs at Caernarfon Castle will have a significant impact on providing equality of opportunity for many disabled people who for the first time in several centuries will have an opportunity to have access to the historic ramparts of Caernarfon Castle alongside all other visitors.

Phil Chambers Consultancy (November 2018).

www.philchambersconsultancy.co.uk

Appendix 1



16.13 The Audience Agency. Caernarfon Castle Visitor Experience Report. 2017.

the audience agency

Caernarfon Castle

Visitor Experience and Audience Development Research Report

DRAFT

Fran Blythe, Research Manager

Monique Ricketts, Research Assistant

October 2017

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DRAFT

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Introduction

Caernarfon Castle is a medieval fortress in Gwynedd, north-west Wales cared for by Cadw, the Welsh government's historic environment service. It was built in the thirteenth century by King Edward 1st, alongside other significant castles of Gwynedd, Harlech, Beaumaris and Conwy.

Each of these castles has been recognised as a world heritage site by the United Nations Education, Scientific and Cultural Organisation (UNESCO) and described as *"the finest examples of late 13th century and early 14th century military architecture in Europe"*.

Caernarfon Castle is architecturally one of the most impressive of all the castles in Wales and was intended as a seat of power in Wales for Edward 1st. The construction of the Castle was part of a programme of building that transformed Caernarfon as town walls were added to protect inhabitants and a new quay was built.

Caernarfon Castle attracts circa 200,000 visitors a year including a high percentage of visitors from outside Wales. To support strategic development as a welcoming destination for local visitors The Audience Agency has carried out research with both visitors and non-visitors to inform a new audience development strategy currently being developed by Cadw.

Additionally, Caernarfon Castle is interested in audiences' understanding and awareness of the castle as a World Heritage Site and in particular the 'Statement of Outstanding Universal Value'.

Research objectives

The overall aims of the research were to explore the current visitor experience, to identify perceptions and barriers to visiting of audiences who are engaging elsewhere but not with Caernarfon Castle and to identify potential areas for development.

Specifically, the research objectives were to:

- Understand the importance of World Heritage Site attributes to the visiting audience, how they feel about them, and how they experience them
- Produce a picture of visitors' understanding of and interest in the wider historical significance of Caernarfon Castle

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- Generate a detailed understanding of current visitors; including who they are, their motivations and drivers for visiting and the information sources they use
- Build an understanding of how attenders currently use and explore the Castle, how they engage with the exhibits and interpretation, and how they feel about their visit experience
- Identify the barriers to attending for both local residents and visitors from across Wales, excluding Cardiff [1]
- Identify target audiences for future development, and provide insight to support the development of strategies for engaging with current non-visitors.

Methodology

Following an initial meeting to confirm the project scope, the primary research was conducted using three approaches:

- a face-to-face quantitative survey with visitors
- qualitative visitor journey mapping with current visitors
- a quantitative panel survey to gather information from non-visitors.

Face-to-face survey

Between 24th August and 5th September (including bank holiday weekend), face-to-face exit surveys were gathered from visitors to Caernarfon Castle. This was a random visitor sample who were interviewed to understand the visitor profile, previous visits to the Castle and intentions to visit again, motivations for visiting, ratings of their experience, perceptions of the Castle and crucially, their understanding of the significance of the Castle's features that make up the Castle's outstanding universal value, and whether there were any features in particular they were looking forward to seeing.

This survey generated a sample of 352 responses.

Visitor journey mapping

The Audience Agency conducted visitor journey mapping with a random sample of current visitors to the Castle to gather more detailed information about each aspect of the visitor

[1] The original proposal looked to sample from North Wales, however, the sample was extended across Wales, excluding Cardiff, in order to reach the sample size of visitors who had not visited the Castle for 5 years.

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experience. On the spot recruitment gave researchers the opportunity to speak to overseas visitors who otherwise may not have been available for discussion groups that were planned in advance.

This included mapping their journey through the Castle, using photographs as visual prompts to identify key touchpoints in their experience, followed by an in-depth discussion of additional elements including the staff welcome, navigation, interpretation and the pre-visit experience. Visual prompts acted as a starting point for participants, who were also encouraged to discuss other aspects of the Castle and their experience that was significant to them.

The discussion guide and list of the participant profiles is available in the appendices.

14 individual visitors participated in the visitor journey mapping research. These took place on 29th August and 9th September.

Non-visitor panel survey

An online survey was conducted to test perceptions and barriers to visiting Caernarfon Castle with a large sample of non-attenders, in the context of their preferences and levels of engagement with leisure activities more widely.

A screening survey was used to ensure that participants were representative of local audiences as primary targets for development; people in the North Wales population who are engaged with arts and culture to some extent, including heritage and museums, but not currently visiting Caernarfon Castle.

The survey generated a sample of 300 responses.

Key findings

Importance of World Heritage Site attributes

- Most respondents were unaware that Caernarfon Castle is a World Heritage Site.
- On learning of the Castle's world heritage site status most respondents thought that the listing would ensure the longevity and preservation of the Castle for future generations, as well as maintain its reputation.
- A small minority stated that the Castle's world heritage site status was not a motivating factor to visit.

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- Most respondents had little or no knowledge of Welsh history and castles (74%), 24% characterised themselves as having a general knowledge.

Reasons for visiting

- In line with previous research a key reason for visiting was doing so as part of a holiday, day trip or tour.
- Another key motivation was a prior interest in castles, Welsh history or heritage in general.

Experience rating

- The overall experience ratings were highly positive. 99% of the face-to-face survey respondents rated their overall experience as 'very good' or 'good'. The visitor journey mapping participants gave it an average rating of 8.63/10.

Key features that resonated with visitors

- Military features (arrow loops, murder holes, the drawbridge were cited) that were easily recognisable and allowed visitors to engage with the history of the Castle.
- Domestic features, particularly the preservation of the bedchamber in the Eagle Tower (rated highest for both engagement and presentation in the visitor journey mapping).
- Respondents engaged strongly with aspects of the Castle that they thought were the best presented. For example, 85% of survey respondents noticed the Well Tower and 66% found it to be an important part of their experience.

Interpretation

- Respondents actively sought interpretation of the Castle's features and the quantity and quality of information made a marked difference to their enjoyment, understanding and general experience rating. Respondents cited lack of information/interpretation placed at key points near each main feature as a barrier to enjoyment.
- Interpretation around Eleanor of Aquitaine, King Edward's Head and the Chess presentation were cited as increasing engagement and enjoyment.
- Respondents stated that they were often unsure whether they had covered all of the Castle, where they had been or what was still to be explored.

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Improving the visit experience

- Visitor journey mapping participants identified three main developments that would improve their visit experience:
  - modernisation (particularly in provisions for children. Suggestions can be found below.)
  - more information around the site particularly at the point of key features
  - better site navigation/signage.
- However although respondents wanted a more interactive experience they would not like to see too many signs or a level of interpretation that would disrupt yhe historic experience or interfere with the fabric of the Castle.

Perceptions and expectations of non-visitors (Panel survey)

- 96% of respondents had heard of Caernarfon Castle.
- Respondents expect the Castle to be 'well-preserved', to be descriptive of Welsh history, to be a good day out with the children and to be part of a wider day out in North Wales.
- 'Historical' (76%), 'Interesting' (67%) and 'traditional castle' (55%) were the words chosen most frequently by respondents to describe their expectations of Caernarfon Castle.
- 65% of respondents said that the main thing they expect to be able to see at the Castle are stories about its history.
- Over half (61%) of respondents said that they expected a café, and 53% expected information and displays about the domestic life of the Castle's former inhabitants, in addition to a gift shop (52%).

Main reasons for not visiting (Panel survey)

- Overall, lack of time emerged as the key reason for not having visited the Castle, with the cost of entry and distance from the Castle as two emerging factors.
- A number of respondents cited problems with parking in Caernarfon as a key reason for mot visiting.
- Only a small proportion of respondents (5%) said that they would definitely not consider visiting the Castle, with a lack of interest in Castles given as the main reason for this response.

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Potential for developing new audiences

- Respondents indicated medium and frequent levels of engagement with leisure activities, alongside a high level of interest in museums and heritage and a strong likelihood of considering a visit to Caernarfon Castle in particular.
- The top three Audience Spectrum segments represented among respondents all show a particular preference for visiting heritage sites.
- 52% said that they would consider a visit to the Caernarfon Castle.
- The main reasons respondents said they would visit the Castle in the future was an interest in Welsh history (41%) or for an outing with family and friends (38%).
- 71% of respondents had been to a significant North-Wales attraction in the last five years, and the screening survey ensured that all had engaged in leisure activities in the last 12 months.
- 58% of respondents said they participated in leisure activities outside the home at least once a month.
- 37% of respondents gave 'to have a relaxing day out' as a motivation to take part in leisure activities; this was the most prominent driver, alongside 'spending time with friends and family' (35%), and 'to enjoy the atmosphere' (28%).
- 27% of respondents said that 'to do something new or out of the ordinary' is a motivator, with 25% citing 'to escape from everyday life' as a driver to engage.

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Summary findings

The summary findings about the current visitor experience are taken from the visitor journey mapping interviews and the face-to-face surveys. The results of each of these approaches show very high levels of congruence, particularly in understanding the aspects of the experience visitors found to be significant.

What are audiences' experience and understanding of Caernarfon Castle as a World Heritage Site?

"It's important, and helps us not to forget history"(12)

Most of the visitors who took part in the qualitative research were unaware that Caernarfon Castle is listed as a World Heritage Site. However, hearing this is the case, had a general understanding that this listing would ensure the longevity and preservation of the Castle for future generations, as well as maintain its reputation.

"It makes me think it's world renowned, it's a big deal!" (1)

"Very important, it means it's looked after for future generations."(7)

Two visitors were very clear that the Castle's status as a World Heritage Site would not encourage them to visit.

"It's good to know, although it wouldn't motivate me to come" (6)

"It wouldn't really occur to me as important, and it wouldn't motivate me to visit" (3)

Visitors characterised themselves as having little or no knowledge of Welsh history and castles (74% little or no knowledge, 24% general knowledge), with most arriving with no particular desire in mind to see particular parts of the Castle. Rather, audiences understood the Castle to be a significant medieval structure and a fortress, which they knew to be well preserved.

"Finest example of medieval architecture" (survey respondent)

"Just to remember how well built it was" (survey respondent)

While visitors noticed the town walls around Caernarfon, and that they were connected with the Castle, and noticed that the Castle had been placed in a strategically advantageous position within the landscape, this was something they had little understanding of. Indeed, this was one of the areas in which they would like to see more development in interpretation.

"It would be good to have maps showing what can be seen from the top of the towers to show the Castle has a strategic position" (2)

Why are they visiting?

"I'm on holiday, but I have a particular interest in castles and have visited a lot of English castles, this is the first Welsh castle" (7)

In line with findings from past research, one of the key reasons for visiting Caernarfon Castle during that summer season was doing so as part of a holiday, day trip or tour. However it was clear that another key motivation was a prior interest in castles, Welsh history or heritage in general.

"I have Welsh heritage" (15)

What sort of experience do they have?

The overall experience was highly positive for all of the visitor journey mapping participants, who gave it an average rating of 8.63/10. The face to face survey respondents also rated their overall experience highly, with 99% characterising it as 'very good' or 'good'.

The aspects of the Castle that register most strongly for visitors are those that are easily recognisable and allow them to easily engage with life in the Castle for monarchy, military and commoners who lived there.

The military features were most evocative in this regard, with visitor journey mapping participants citing the arrow loops, murder holes and drawbridges as particularly significant to their experience. This was echoed with the face to face survey respondents who were more likely to have noticed the military features tested than the others.

"Reminded me of my boyhood playing bows and arrows, I stopped to look through about ¾ of these. You get a sense of how it would have been to be under siege." (14)

"This is the kind of thing I expected to see, and I would have been disappointed if I hadn't. They give you a sense of how deep the walls are." (Arrow loops) (8)

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"There are grooves in the wall where the portcullis came down and you can see the murder holes." (King's Gate) (2)

"You can still see the foundation where the old drawbridge was, which is fascinating to me. From here I thought about the soldiers, I have many generations of the military in my family, I don't care what the kings did, I want to know what the soldiers were doing." (15)

Domestic features were also important. The Eagle Tower in particular stood out as significant for visitors, for the preservation of the bedchamber and the quality of the presentation of the interpretation inside it. This was also rated highest for both engagement and presentation the visitor journey mapping participants.

"For this part it was easy to imagine that someone had once lived there." (6)

"Really good condition especially Kings Bedroom." (Survey respondent)

"Well preserved in Eagle Tower. Chess board exhibit was excellent." (Survey respondent)

"Well preserved - gives view of how it was to live here." (Survey respondent)

Visitors engaged strongly with the aspects of the Castle that were the best presented. 85% of survey respondents noticed the Well Tower and 66% found it to be an important part of their experience. Visitor journey mapping participants enjoyed the fact the well lit up, as well as the size of it, but overall had little understanding of what it was used for.

"Brilliant, it's so big and a really nice touch to light it up, but I don't know how it was used really." (7)

"When you look down the well it lit up- it was very well thought out, although there wasn't much to explain to the kids what it was- a bucket and rope would have helped." (3)

Indeed, where the experience fell below expectations this was often related to a lack of information available about the Castle. Audiences really enjoyed the interpretation that was available inside the Castle, with visitor journey mapping participants particularly enjoying the Eleanor of Aquitaine, King Edward's Head and the Chess presentation.

"Loved the statues of the Kings and Princes on the chess board, and it was a good time line." (5)

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"Very well laid out. The Eleanor exhibition was very well put together, well lit, good lighting, with a lot of information" (14)

"Excellent, I really liked King Edward's Head" (15)

However, for some of the visitor journey mapping participants, despite keen interest in the features of the Castle, there was a lack of understanding that was something of a barrier to enjoyment, and they would have liked to have seen more interpretation at the point of which they were experiencing each feature.

"I didn't actually know this was the great hall, although I clocked the low walls. We had a discussion about what it could be, but it would have been nice to know." (7)

"I noticed the window tracery and I figured out the room that must be the chapel based on these." (15)

"It was in good condition, but it would be good to know what it was and more about it" (window tracery) (6)

Respondents enjoyed the opportunity for exploration that the Castle offers, but felt that this also meant that they missed out. Often they were unsure whether they had covered all of the Castle, or where they had been, which is demonstrated in the patchy coverage of Castle features in the visitor journey mapping

What would encourage them to visit again?

In terms of improving the visit experience, there were three main developments that visitor journey mapping participants identified; modernisation, particularly in provisions for children, more information around the site, and a few would like to see more structures navigation. The first and last audience suggestions here should be treated with caution, as they were by no means unanimous, and often came with a caveat. Audiences would like to understand the Castle better, and have a more interactive experience, however they also would not like to see too many signs to disrupt the historic experience, and in recommending interpretation often suggested formats that would not interfere with the fabric of the Castle.

"Modernising- something for the kids to play with near a picnic area, a massive plan of the Castle in Lego, or a trebuchet" (5)

"More interactive things" (6)

"Interactive elements for the children" (3)

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"More information on the town, fort and why it was built here" (14)

"More information on the main bedroom" (12)

"Signage, little plaques to say what things are, diagrams to show how things worked and information about the people and their lives. I'm not sure I would want to see a lot of signage. Audio guides or a book would be a less imposing way of getting the information" (9)

"More information, people in costume, entertainment, the cinema film was good as it brings the castle to life" (7)

"More curators to ask questions of- I had higher expectations about the levels of interaction. Audio guides would be good" (1)

"A structured journey through the Castle shown on signage" (4)

"A bit more navigation" (10)

"Maps" (15)

Current non-visitors

Findings about non-visitors are taken from responses to the panel survey.

What are the perceptions and expectations of non-visitors?

96% of respondents had heard of Caernarfon Castle. Respondents expect the Castle to be 'well-preserved', to be descriptive of Welsh history, to be a good day out with the children and to be part of a wider day out in North Wales.

- 'Historical' (76%), 'Interesting' (67%) and 'traditional castle' (55%) were the words chosen most frequently by respondents to describe their expectations of the Caernarfon Castle.
- 65% of respondents said that the main thing they expect to be able to see at the Castle are stories about the history of the Castle.
- Over half (61%) of respondents said that they expected a café, and 53% expected information and displays about the domestic life of the Castle's former inhabitants, in addition to a gift shop (52%).
- Representative literal responses to being asked what they would expect from a visit to the Castle:

  "A castle in a good state of repair"

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"To see a wonderfully preserved castle and artefacts in a fantastically preserved setting."

"A day out with activities aimed at young children, an opportunity to learn about life in the castle with outside."

"Old castle showing its part in Welsh history, and something all the family."

"Explanation of the construction of the Castle and of its role in the context of the historical period."

"Time by the sea. Fantastic views of Anglesey and the area around. Good fun for children. Interest in the history, both recent and older. In a lovely town."

"I would expect a very interesting day in a beautiful part of Wales. The castle is so loved and famous I would expect a really lovely experience and good facilities, food, refreshments, gift shops etc."

What are the main reasons for not visiting?

Overall, lack of time emerged as the key reason for not having visited the Castle, with the cost of entry and distance from the Castle as two emerging factors.

- A number of respondents cited problems with parking in Caernarfon as a key reason for mot visiting.
- Only a small proportion of respondents (5%) said that they would definitely not consider visiting the Castle, with a lack of interest in Castles given as the main reason for this response.
- Representative literal responses to being asked what had prevented respondents from visiting:

  "We almost visited the Castle at that and made the journey to North Wales, but due to the price of entry (especially small children), it did not make financial sense."

  "Distance and cost."

  "Distance and time only, I live in Flintshire but would certainly like to visit the castle again soon."

  "Having a caravan in Pwllheli we pass thru Caernarfon regularly but always on way there or way home. To make us visit it would have to be cheap and fun for kids."

  "Distance and transport links from mid-wales."

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"I have been told it is quite difficult to park in Caernarfon, my husband has Parkinson's and cannot walk too far without getting tired. We do have a Blue Badge and do intend to try soon and see if we can park in the immediate area."

What's the potential for developing new audiences?

The results suggest that there is potential to develop the Welsh audience for the Caernarfon Castle. The respondents indicated generally medium and frequent levels of engagement with leisure activities, alongside a high level of interest in museums and heritage, and a strong likelihood of considering a visit to Caernarfon Castle in particular.

- The top three Audience Spectrum segments represented among respondents all show a particular preference for visiting heritage sites.
- 52% said that they would consider a visit to the Caernarfon Castle.
- The main reasons respondents said they would visit the Castle in the future was due to an interest in Welsh history (41%) or for an outing with family and friends (38%).
- 71% of respondents had been to significant North Wales attraction in the last five years, and the screening survey ensured that all had engaged in leisure activities I the last 12 months.
- 58% of respondents said they participated in leisure activities outside the home at least once a month.
- 37% of respondents gave 'to have a relaxing day out' as a motivation to take part in leisure activities; this was the most prominent driver, alongside 'spending time with friends and family' (35%), and 'to enjoy the atmosphere' (28%).

27% of respondents said that 'to do something new or out of the ordinary' is a motivator, with 25% citing 'to escape from everyday life' as a driver to engage.

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Results in full

Current visitor journey mapping

The following summary captures visitor ratings and comments about their visit experience. The visitor journey map gives an indication of the relative engagement and satisfaction ratings for each element, or touchpoint, of the visit; the full infographic is appended as a separate document.

Where direct quotes have been used, these are attributed to a participant pseudonym; a list of the participant profiles and pseudonyms is available in the appendices, along with the discussion guide used to inform the interview process.

The Importance and understanding of Caernarfon Castle as a World Heritage Site

"It's a treasure, not to be lost" (11)

12 of the 14 visitors interviewed for visitor journey mapping felt Caernarfon Castle's recognition as a World Heritage Site was very important. For some this was because it would mean the Castle would be preserved for future generations, while for others it was seen as a signal globally of the Castle's importance, and that *"Wales cares about its castles"(4).*

"Very important, it means it's looked after for future generations."(7)

"It's important, and helps us not to forget history"(12)

"It makes me think it's world renowned, it's a big deal!" (1)

However, participants generally weren't aware of the Castle's status as a World Heritage Site and learned of this through the visitor journey mapping process. A couple were very clear that it was not part of their motivation for visiting.

"It's good to know, although it wouldn't motivate me to come" (6)

"It wouldn't really occur to me as important, and it wouldn't motivate me to visit" (3)

The few who were aware that Caernarfon Castle is a World Heritage Site were aware that it was part of listing alongside three other castles, with one of them planning to visit or having visited others of these castles as part of the same holiday.

"We went to Conwy Castle this morning and we're planning on going to Harlech tomorrow" (14)

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Significance of attributes from the Statement of Outstanding Universal Values

During the visitor journey mapping exercise, we spoke to people who both did and didn't have demonstrable prior interest in British history and/or the military. We spoke to two History teachers, one serving soldier, and one person who, through discovering generations of Welsh ancestors in the military, had an avid interest in Welsh military history. Most of the visitors expressed interest in history or with castles in general. One of participants was an opportunist visitor who had no particular prior interest in castles or history.

Given this mix of levels of interest and prior knowledge, most participants showed a huge level of passion in and interest for learning about the Castle as part of their visit, but had very little prior understanding of the specifics of the significance and history of Caernarfon Castle.

Participants who took part in the visitor journey mapping were encouraged to consider a set of architectural features (using images as stimulus) that reflected those on the Statement of Outstanding Universal Value, as well as anything else they had seen within the Castle that they considered to be significant to their visit.

***Value 1**: The finest examples of late 13th century and early 14th century military architecture in Europe- demonstrated through completeness, pristine state, evidence of organised domestic space, and extraordinary repertory of their medieval form.*

Visitors were impressed with the pristine nature of the Castle, particularly when they considered its age, and found the following features from Value 1 significant to their visit:

- Kitchens
- Well Tower
- Bedchambers
- Fireplaces
- Eagle statues

There was no understanding for visitors about the use of parts of the Castle for administrative requirements, and none of the visitors commented on the angled towers or the patterned masonry.

Participants were pleased when they came upon a part of the Castle they could recognise as domestic as it helped to bring the castle to life for them.

> *"For this part (Eagle Tower) it was easy to imagine that someone had once lived there." (6)*

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> *"Overall I would like to see more about the domestic and less about the military" (6)*
>
> *"The best thing about my visit was the scale and grandeur, how well it has stood the passage of time, in particular the carved sculptures on the Eagle Tower, as you can see these haven't been touched since they were installed." (14)*
>
> *"I really liked the bedroom in the tower, but I would have liked to have known more about what the rooms around it were used for." (12)*

***Value 2**: A supreme example of medieval military architecture designed and directed by James of St George, King Edward I chief architect and the greatest military architect of the age. Relationship between the design and site.*

Almost all participants understood the Castle to have been constructed as a fort and a few know the Castle's construction was ordered by King Edward 1st before their visit to the Castle. None of the participants found the construction of the Castle as a ring as significant, nor a motivation to visit the Castle, although some were very surprised to see the Castle was constructed in this way and expected it to be covered inside.

Features from the Statement of Outstanding Universal Values that visitors found to be significant were:

- King's Gate
- Rock cut ditches
- Arrow loops
- Window tracery
- Towers
- Curtain walls
- Drawbridge

For the most part the details of the architecture escaped their notice, and none of the participants selecting the following as significant to their visit:

- Ability to isolate towers for defence
- Defended Watergate
- Doorways with
- Doorways with semi-circular arches
- Wide windows with segmental arches and tracery
- Corbelled latrine shafts

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"You can still see the foundation where the old drawbridge was, which is fascinating to me. From here I thought about the soldiers, I have many generations of the military in my family, I don't care what the kings did, I want to know what the soldiers were doing" (15)

"This is the kind of thing I expected to see (arrow loops), and I would have been disappointed if I hadn't. They give you a sense of how deep the walls are. I think the conservation of them is excellent." (8)

"There are grooves in the wall where the portcullis came down and you can see the murder holes." (2)

"I got some really good photos through the windows. There's not much intricacy in the castle so these are nice to see. There should be more information though, you don't learn anything otherwise." (7)

"This is the kind of thing I expected to see (arrow loops), and I would have been disappointed if I hadn't. They give you a sense of how deep the walls are. I think the conservation of them is excellent." (8)

"I learned today that King Edward 1st built the castle." (14)

"I could see the arrow loops were slanted in, and I knew what that meant, it's so that archers can shoot arrows from different directions from the inside, but it's hard to shoot an arrow in from the outside. But there was nothing to show what that meant- there should be a diagram" (2)

"Reminded me of my boyhood playing bows and arrows, I stopped to look through about ¾ of these (arrow loops). You get a sense of how it would have been to be under siege." (14)

***Value 3**: Constructional features linked to documentation*

For the most part, participants weren't alive to the constructional features that evidenced constructional phasing. Participants noticed the putlog holes above the Great Hall, but none understood that the King's Gate is incomplete.

One participant in particular (14) was very interested in the construction of the Castle, as he felt it would have enhanced his experience, and would like to have seen more explanation of this.

"I would have liked to have seen more about the construction, how it changed over the years, how it was built and in what phases. I liked the scale model, but it wasn't clear why the castle was built in this location, why it was important to be by the water, for example" (14)

"I took pictures of the different kinds of walls, to see where older and newer parts of the castle are" (4)

"I was interested to see whether the castle has been rebuilt at any point, but I couldn't see any evidence of it." (14)

***Value 5**: Relationship with the coast*

A handful of participants understood the importance of the Castle's positioning by the sea as strategic to defence. However none noticed, or found significant, the water gate.

"I was impressed by the size. It's the first castle I have ever been to. I was great to see it in its location on the estuary surrounded by the town walls." (9)

"When I got to the top of the tower, the views showed me how the landscape protects the castle." (11)

***Value 6**: Relationship between castles and planned town walls*

A handful of participants were interested in the town walls that surround Caernarfon and would have liked to learn more about this aspect of the Castle, however aspects of urban plan and the relationship between the Castle and the local church were not commented on as significant to their Castle experience.

"One of the animals (on the trail) was a civil war commander which made me wonder- why was the castle kept so whole for so long after the medieval period? Would have liked to have known that, as well as about the links to the town centre" (5)

"I was impressed by the size. It's the first castle I have ever been to. I was great to see it in its location on the estuary surrounded by the town walls. (9)

"We were running up and down the towers. When we were at the top I could see the town walls." (12)

"More information on the town and fort and why it was built here would encourage me to visit again." (14)

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Motivations for visiting and overall experience

> *"I'm on holiday, but I have a particular interest in castles and have visited a lot of English castles, this is the first Welsh castle" (7)*

One of the main motivations for visiting the Castle was as part of a holiday, tour or day trip, however this was more often that accompanied by an interest in heritage, be that Welsh history, or the history of castles, with half of participants citing this as their reason for visiting.

> *"I watched a series on Netflix called Great British Castles, I loved it and I wanted to see for myself. I'm interested in the connection between history and society today" (4)*

Other participants were visiting the Castle because it is a must see attraction, part of their Welsh experience whilst on holiday, day tripping or on an organised tour.

> *"I'm on a day trip. The castle is iconic, famous, so I wanted to see it as I haven't been before." (14)*

The overall experience was highly positive for all of the research participants, who gave it an average rating of 8.63/10.

Where the experience fell below expectations, or wasn't rated as highly, this was often related to a lack of information to tell them about what they were seeing within the Castle structure. During the mapping exercise, and in the conversations following it, visitors often commented that their experience would have been greatly enhanced if they had understood at each point the uses of spaces and the reasons for choices in the design of the castle, as well as its history and position within the landscape.

> *"There was very little information as you go around the castle, I would have liked to have seen little plaques in different places?" (7)*

Visit highpoints and low points

For the most part, participants' visit highpoints relate to the grandeur and preservation of the architecture.

> *"I was impressed- it's well preserved and you can explore with no rules. I like that it's old but not in ruins" (10)*

> *"The fact you can get really high, and there aren't many parts that you can't access" (2)*

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> *"The towers and the scenery" (6)*

> *"Just seeing the size of the place" (9)*

Two areas were rated highest by the participants for both depth of engagement and quality of presentation (9 for each), The Fusiliers Museum and the Eagle Tower. For the most part their experience was enhanced by the interpretation and the opportunity to learn about the Castle.

> *"The information at the Fusiliers Museum was fantastic- I enjoyed the film in there" (12)*

> *"The Fusiliers Museum was fascinating, there was a good map at the beginning to show where was included in the museum" (14)*

> *"The Museum was very in depth" (7)*

> *"Loved the statues of the Kings and Princes on the chess board, and it was a good time line" (5)*

> *"This one was the best presented, and you can get right to the top, which is rare in most castles. The chess pieces were good for kids, he felt like he was in Harry potter. And my wife and I can read the info- something for everyone" (3)*

The main theme to emerge from the visitor journey mapping research is that, for the most part, visitors from both overseas and the UK are keen to understand more about the Castle. Participants are interested in the social history of the Castle, both the royal and common lives lived there. They're also very interested in the construction of the Castle, and often notice small details that indicate how and why the Castle was constructed when and where it was. Participants were keen to know more about what they were looking at, as they were looking at it, to have the relevant interpretation in situ.

The chapels were one aspect of the Castle participants were very interested in seeing but reported that they hadn't been able to find. Participants who had seen a chapel related that they were able to figure out what it was based on, for example, the window tracery, but they missed the signage that is in place.

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Window tracery (6 for depth of engagement and 6 for quality of presentation) and Constables Hall (7 for depth of engagement and 5 for quality of presentation) accrued ratings at the lower end of the scale, between for the most part because participants would have liked to have seen more interpretation.

"It would be good to have more info about the architectural features"- window tracery (3)

"It was in good condition, but it would be good to know what it was and more about it"- window tracery (6)

"We didn't know much about it when we saw it. We saw people climbing on it, they might not have done that if they knew what it was"- Constables Hall (6)

"It's not the most interesting or attractive, there could be more to help you understand the history, the information about it"- Constables Hall (10)

"I liked being up there because it gave me a sense of being important, it looked so grand. I would have liked more information about what I was looking at"- Constables Hall (12)

"No signage or boards, need visual interpretation"- Chapel (5)

Navigation and signage

Overall, participants found the site a challenge to navigate, a fact that the majority embraced readily as an opportunity to explore the Castle unfettered. Many were glad that the Castle was free from signage that they felt would have hindered their experience.

A handful of participants were clear that they would have preferred more directed navigation. Those who used the map found it a useful aid to orientation, however there were some who felt there were key labels missing from the map.

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"It's simple, you just need to work it out for yourself. It's more of an exploration, we wouldn't want to follow a route." (6)

"We didn't have a clue! But we just like to explore" (8)

"We just wandered, which we liked" (9)

"Difficult, and we got lost a LOT, but that was the high point as you can just happen upon different things" (10)

"Fine, I wouldn't like it to be like the tower on London where they tell you what to do and where to go" (12)

"Not worried, I just went with the flow" (13)

"It's very easy to get lost, which is part of the excitement. However there are certain things, such as the chess set, the video and the model, that should be well sign posted. I would have been sorry to have missed them" (14)

"It's a maze, but you get the gist as you're going around. I was happy and I'd hate to see loads of signs" (15)

Would have liked more directed navigation

"I would have liked more direction, I thought the routes were illogical" (1)

"The toilets were hard to find, navigation was tricky overall, especially between the towers" (3)

"I didn't know where to go." (4)

"It was fine, it's not hard to navigate, although sometimes having a dedicated route with numbers is good" (7)

Map

"We followed the numbers on the map, it seems fine, there's enough information" (12)

"There are things missing from the map, there needs to be more detail. For example, there's no label for the Great Hall" (9)

"Really clear and could identify where things are and fit in with the kids trail. Signage needs improving and not clear to read with the grey background" (5)

"It's incomplete, there needs to be more information on it" (4)

"Good, clear" (3)

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"Very good" (2)

"I didn't look at the map, I would have preferred signage" (1)

Staff interactions

The comments about interactions were largely positive, with participants citing particular examples of helpfulness from staff at the entrance desk.

There was some apparent inconsistency in the welcome, however, with some participants discounting the interaction with staff at the desk and reporting that they hadn't spoken to anyone on the way in and so left little impact on the visit experience.

The impact of the welcome on the whole visit experience is clear from the responses, with those who had a friendly interaction with staff indicating that this set the tone for the rest of their visit.

"The guy on the desk looked like a security guard but he was very helpful and welcoming. He told us about the 3-day pass, I thought there was only a 7-day one, and I only have 3 days left of holiday" (1)

"Yes, everyone was very happy and friendly." (4)

"The man sorted out a problem with the membership card and offered the trail and a free pencil"(5)

"The ticket office guy, he was very efficient" (8)

"The man in the shop, it was nice to hear Welsh spoken" (13)

"The guy at the front desk told us to start at the video presentation, which I was glad to see" (9)

Some of the participants felt that a more prominent staff presence was necessary and expressed a desire for a higher level of engagement around the site. For the most part this ties in with the participants' responses around information and interpretation (below), a greater staff presence might help them understand the Castle better.

"No, and in a few exhibits I had questions to ask" (15)

"I didn't see any, sometimes it's nice to ask questions" (7)

"Briefly. It had little impact on my visit, I like to explore for myself" (14)

"I didn't see any, there were a few places where I would have liked to have known more, and would have liked to ask staff." (12)

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Information and interpretation

Where participants had seen interpretation they were impressed by the breadth of it, and also the way in which it was presented to them. However a lot of visitors felt that there wasn't enough information, or that key information was missing.

The Fusiliers Museum was a particular favourite for those who had visited it, for the most part this was down to the excellence and completeness of the interpretation.

"Very well laid out. The Eleanor exhibition was very well put together, well lit, good lighting, with a lot of information" (14)

"Excellent, I really liked King Edward's Head" (15)

"The film was really interesting, but there was no sound, which is not good for kids" (2)

"I saw the video and thought it could be more informative- it's an overview, so skips over a lot of the detail" (10)

"What we saw was informative but there wasn't enough of it" (1)

"Dates were missing for much of the interpretation" (2)

"I'd like to see more, I didn't see much at all" (4)

"We only saw the information about Charles at the Eagle Tower- it would be nice to see more on the royalty aspect" (6)

"There was very little information as you go around the Castle. I would have liked to have seen small plaques in different places like they do at English Heritage castles. I'm used to visiting those, so it's what I expect" (7)

"I thought it was interesting, but incomplete" (9)

"The information at the Fusiliers Museum was fantastic- I enjoyed the film in there" (12)

"The Fusiliers Museum was fascinating, there was a good map at the beginning to show where was included in the museum" (14)

"The Museum was very in depth" (7)

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"It's nothing special, but we're quite happy. We come here all the time and try and focus on a different thing each visit" (13)

"It might be good to have holograms or to project images onto the walls, or have an actor telling a story" (2)

Changes to the original architecture

Participants were very impressed with how intact the Castle is, both those who were visiting from overseas, and visitors from the UK. Some participants were observant of some even minute changes that had been made to the castle, for example where stairs had been repaired. Others were pleased that the original appearance of the Castle has been preserved by the lack of signage on the outside of the Castle.

"Impressive, sturdy and well preserved. I'm glad there's no flags or signs" (10)

"I don't like when I see banners on historical sites, it degrades the value, so I'm glad there was nothing on the Castle" (9)

The most visible example of the changes made to the Castle is at both the internal and external sides of the King's Gate. Participants picked up on the changes that had been made here, with most acknowledging that the style was modern and not in keeping with the Castle, but that they 'understood' why, for example, the bridge or the glass entrance needed to be installed, and that it had been sensitively designed.

"I like the bridge and I understand that you need that there, at least there's no signs on the front" (9)

"The glass box is quite discreet" (1)

"I thought it looked extremely well maintained, and refurbished where it needed to be. The grounds are well kept. The glass frontage looked fine, it works." (8)

"The glass entry doesn't take away from the experience, I saw it but I thought it blended in" (11)

"Pretty grand. The glass is very nice as you can see through it as you queue. The staff were pleasant and I feel it had an overall good design" (15)

"Nice glass atrium, you obviously need something there and worked well" (14)

"The entrance is sensitively done with the glass, as you can see through it to the castle, and I understand that they need something there." (9)

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A handful of participants fully embraced the mix of modern and historical.

"Very impressed, it's very grand. I liked the mix of modern and old (bridge), it looks right the way they have done it" (14)

"Very grand and in good condition. I liked the glass, very modern" (6)

"It's so nice and clean. The glass box is really nice and adds something modern, I think it blends well with the Castle" (12)

Pre-visit experience

All participants found the Castle very easy to locate due to its prominence in the landscape. Only a few participants looked up the Castle online prior to their visit, but those that had said that they had found the information they were looking for, with one participant full of praise for clarity of the website, and another who found the app to be very useful.

"I looked at the Cadw website" (1)

"I used the Cadw app, it was really useful" (5)

"I looked at the Cadw website- I just looked for the prices and the postcode" (7)

"Yes, the Cadw site, to find out about prices and location" (9)

"Cadw- it was very useful, the map, prices, parking and everything right there on the home page! The web designers deserve a medal. Very straightforward" (15)

Suggestions for development

There were three main areas of development that participants would like to see within the Castle. Some participants commented on the need for modernisation, particularly when it came to provisions for children, and the introduction of interactive elements in the Castle.

In keeping with the main theme of this research, the most common desire for development was around information and interpretation. Participants were keen to hear more about the history of the positioning of the Castle, many of them had seen and were intrigued by the town walls and would have liked to have known more about this.

Others were interested in, and offered opinions on new ways in which they could receive this information. It is significant that, for the most part, participants were interested in

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interpretation that didn't require alterations throughout the Castle, instead suggesting actors, projections, audio guides or more staff as ways of delivering information.

A small proportion would have liked to have seen improvements to the navigation around the site.

Modernisation

"Modernising- something for the kids to play with near a picnic area, a massive plan of the Castle in Lego, or a trebuchet" (5)

"More interactive things" (6)

"Interactive elements for the children" (3)

Information

"More information on the town, fort and why it was built here" (14)

"More information on the main bedroom" (12)

"Signage, little plaques to say what things are, diagrams to show how things worked and information about the people and their lives. I'm not sure I would want to see a lot of signage. Audio guides or a book would be a less imposing way of getting the information" (9)

"More information, people in costume, entertainment, the cinema film was good as it brings the castle to life" (7)

"It would be good to have maps showing what can be seen from the top of the towers to show the Castle has a strategic position" (2)

"More curators to ask questions of- I had higher expectations about the levels of interaction. Audio guides would be good" (1)

Navigation

"A structured journey through the Castle shown on signage" (4)

"A bit more navigation" (10)

"Maps" (15)

Face to Face visitor survey

Charts for the face-to-face survey Audience Finder standard questions can be found on your Audience Finder dashboard.

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Visitor Profile

- 44% of visitors were aged between 34 and 54, and a fifth of visitors were aged over 65
- 54% of visitors were female and 46% were male
- 96% of visitors identified as being from a White ethnic background and 3% were Asian or Asian British. None of the visitors identified as Black or Black British.
- 12% of visitors said that their daily activities were limited, with 2% saying they were limited a lot and 10% limited a little.
- Most visitors were visiting in a small group, with 32% visiting in a group of 2, 23% visiting in a group of 3, and 18% vising in a group of 4. 5% of visitors came alone. The median group size was 3. Of those who were visiting in a group, 23% were visiting with people under 16, and 77% with people who were over 16.
- Fewer of the groups visiting were families than was shown in the all-Cadw research of 2015. 38% of Caernarfon Castle visitors were with families, while 44% of Summer Season Cadw visitors visited with families.
- 74% of visitors claim little or no prior knowledge of Welsh Castles and history, while 24% have a general knowledge and 1% specialist knowledge.
- Over 10% of respondents were from Europe (excluding UK), with German visitors being the most common. 9.7% were from the USA, 5.1% from Australia and New Zealand and 2% from Canada. There was one visitor from each of the following countries; India, S Africa and Saudi Arabia.

Visiting Caernarfon Castle

- Almost ¾ of visitors had never been to Caernarfon Castle before (72%), slightly higher than the Summer Season research of 2015 (69%). 23% last visited more than a year ago and 5% visited in the past 12 months.
- The top motivations for visiting Caernarfon Castle were to spend time with friends and family (45%), to learn something (40%), and because heritage is an important part of who they are (31%). Other motivations for visiting were to entertain their children (24%) and to do something new or out of the ordinary (23%). Spending time with family and friends was the top main motivation for visiting (22%), followed by heritage being an important part of who they are (14%)
- Almost ¾ (73%) of visitors said their visit made it much more likely (34%) or more likely (39%) that they would visit again. While 23% said it made no difference and 4% said it made it less likely.

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- Of the 4% who said this visit had made it less likely they would return, when asked what might encourage them to attend in the future, all commented on their trip as a tick off on the 'bucket list' that need not be repeated, either because of the distance from home, or because their age would prevent them from enjoying the Castle in the future.

  "As I've done it now/getting older/ not as easy to get around here due to steps"

  "Have been here now. It's fascinating but I live a great distance away"

- 14% of those who visited felt there was nothing that could be done to the Castle to improve their visit

  "Nothing! All good"

More information around the Castle, as well as soft lighting on staircases were also common improvements cites by visitors. Many visitors either didn't notice that there was a café, and would have liked one, or felt that the café that was available lacked adequate range. Visitors suggested a variety of interactive interventions, from audio guides to actors that would have improved the experience for them.

Representative sample of quotes:

"Explanation boards about rooms - nothing in rooms / nice to have info on what rooms for. Soft lighting - on stairs / or on ground like highlighter strips. For photo opportunities better lighting."

"Cafe - not enough choice. Could be done better, better menu - more drinks, choice is pretty pathetic. Local food should be included on a menu."

"Live performances would be interesting here. Interactive activities would make it more interesting."

Ratings on quality and visit experience

- Almost all visitors to the Castle rated highly their whole experience, with 99% rating it 'very good' (79%) or 'good' (20%).
- The overall quality (97%) and how welcoming the staff were (98%), were also rated very highly. This is a similar pattern to Cadw's previous research that also showed the friendliness of the staff to be highly rated.
- Ease of access had the fewest good or very good ratings, but still attracted a high proportion at 82%. When we look at why visitors selected 'poor' or 'very poor' for this aspect of their experience, for the most part this is related to access for disabled people, with most feeling this is inevitable for a building the age of the Castle.

Representative sample of quotes:

"Although access is ok for you if you are well and able bodied, it is not the easiest if you are not. I also appreciate that it is important to keep it as it was, so there is very little that can be done about this."

"With mobility issues the stairs are impossible."

"Only a few areas accessible for a wheelchair."

- These themes were repeated when visitors were asked to consider what stood out for them on their visit, with towers, walls and the preservation of the Castle as key elements of their experience. The Eagle Tower was a particular favourite for visitors who were impressed with the splendour and the sense it gave them of a living space. Visitors' experience came alive when they saw the details and interpretation within the Castle that helped them to envisage the domestic or military past. The arrow slits, fireplaces, and bedchambers were the most eloquent features of the Castle in this regard.

Representative sample of quotes:

"The King's bedchamber in the Eagle Tower. You could see how he was separated from the masses. It gave you a sense of the class divisions"

"The fireplaces and the eagles on Eagle Tower"

"The defence system, the Eagle Tower and the rooms intact"

"Window frames, fire places, turrets of Eagle Tower – impressive"

"Arrow slits and 3 slits together were clever"

"Arrow Slits Being able to fire in all directions"

"Military past was fascinating - gate house and arrow slits"

Decision making factors

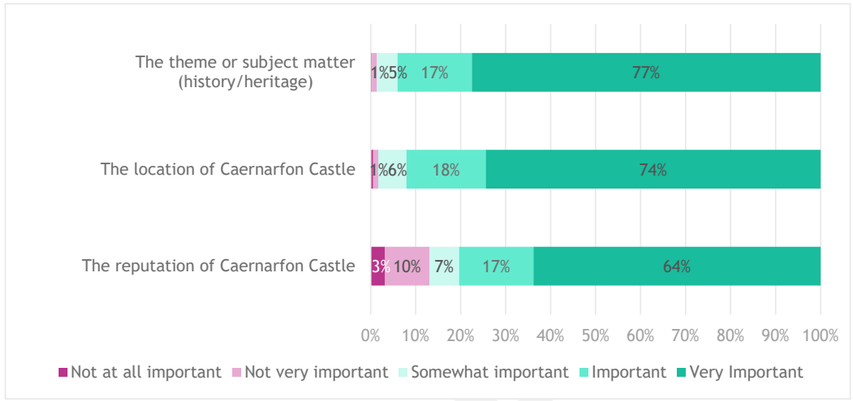
Respondents were most motivated to visit the Castle because they are interested in history and heritage, with 94% agreeing this was an important part of their decision making. The location is almost as important for respondents, with 92% saying this was important for very important.

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81% of respondents consider the reputation of Caernarfon Castle to be an important for very important part of their decision making.

How important are the following factors in your decision to visit the Castle today?



Base: 351

Margin of error: 4%

Perceptions of Caernarfon Castle

Perhaps unsurprisingly, respondents consider their Caernarfon Castle experience to have been historical. There is also an emphasis on what respondents have learned while inside the Castle and a strong indication of their level of interest in it.

Which three words would you use to describe your visit today?



Base: 345

Margin of error: 4%

Significance of the architecture

- Under a third of visitors had a particular aspect of the Castle experience in mind as something they would like to see as part of their experience, with towers and walls being the key features. Visitors were interested to see the view from the towers, a few were interested in particular features of the towers they knew about. A small number of visitors were simply interested in seeing how complete and well maintained the Castel is, while a couple had a sense of the significance of the Castle as a rare fine example of medieval architecture.

Representative sample of quotes:

"Views – the height of the towers enable excellent views for miles"

"Guns, the thickness of the walls, arrow slits and towers"

"Three turrets in Edward's Eagle Tower"

"Prince Charles - Where he was invested, and information about Edward 1st"

"Finest example of medieval architecture"

"Just to remember how well built it was"

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Were there any particular architectural features you were looking forward to seeing at Caernarfon Castle before you arrived? What were they?



Base: 226
Margin of error: 8%

Thinking just about the Castle building, what architectural features stood out for you and why?



Base: 304
Margin of error: 5%

Domestic features

- The Well Tower (85%), Great Hall (79%) Halls (71%) and hearths (70%) were most noticeable to visitors, with the Well Tower (66%) and the Great Hall (64%) the domestic features that were most important to their experience. Visitors commented that these features were well maintained and helped them envisage life in the Castle. A few would have liked to have had staff within the Castle to ask questions of.

Representative sample of quotes:

"Well preserved in Eagle Tower. Chess board exhibit was excellent"

"Well preserved - gives view of how it was to live here."

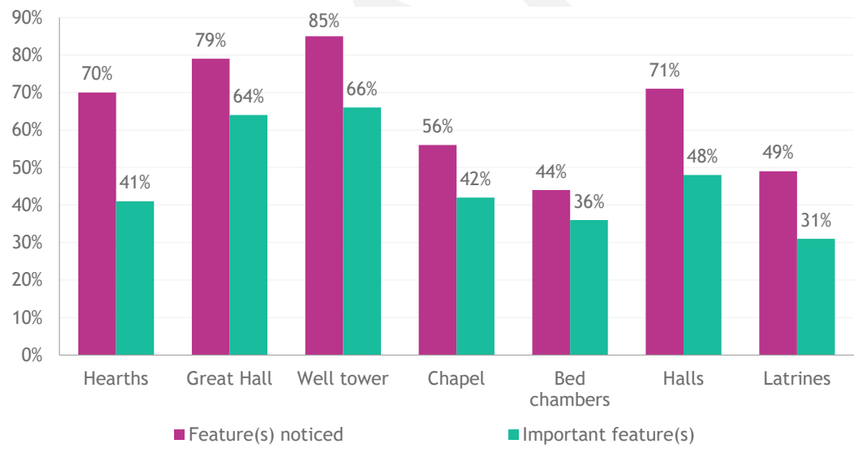
"Well preserved so I can see what it was like before."

"The great hall area is impressive as it is so big"

"Really good condition especially Kings Bedroom"

"I had questions to ask, but nobody was there to answer them."

Which of the following domestic features did you notice on your visit to Caernarfon castle today? And: Which, if any, would you say were important to your experience?



Base features noticed: 349
Margin of error: 5%

Base important features: 300
Margin of error: 6%

What other comments do you have about these features, if any?

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Base: 117

Military features

- Overall, the military features were more noticeable to visitors than the domestic features. 95% of visitors noticed the Towers, 87% noticed the gatehouse, and 84% the arrow slits. The towers and the arrow slits were most important to the Castle experience, 74% of visitors found the towers important and 52% found arrow slits to be important.
- Visitors were overawed by the size and preservation of the Castle, in particular the free access up the towers and the views they saw from the tops. A few considered the choices that were made as part of the construction that make the Castle an effective fortress.

Representative sample of quotes:

"The sheer size is mind-boggling"

"The fact that you can actually get up some towers to explore is very impressive."

"The arrow slots being 360 degrees."

"Walls are amazing to walk around and their thickness also."

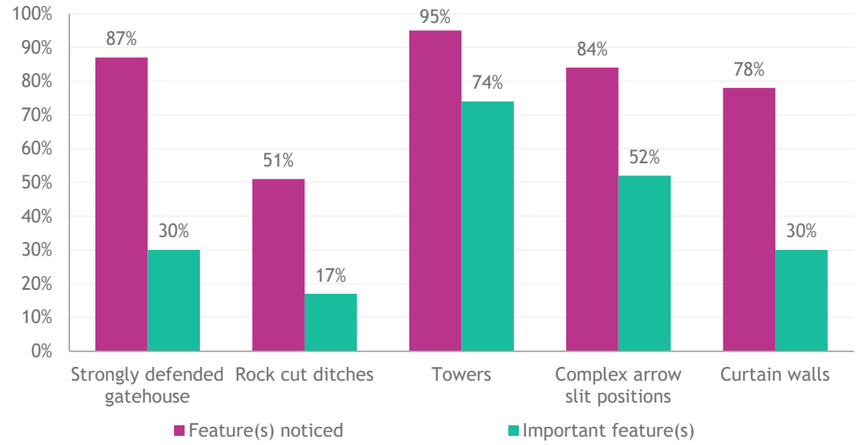
"Arrow slits are everywhere and reminds you of what a fortress this was and how it must have been defended."

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Military features

Which of the following features did you notice on your visit to Caernarfon castle today?

And: Which, if any, would you say were important to your experience?



Base features noticed: 353

Margin of error: 5%

Base important features: 315

Margin of error: 6%

What other comments do you have about these features, if any?



Base: 204

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Savoyard features

- Of the Savoyard features tested, the window tracery was the most noticeable with 93% of visitors noticing this, and 92% saying it was an important part of their experience, the highest percentage for importance of all the features tested.
- The wide windows with segmented arches were noticed by 81% of visitors, with 48% finding this feature important, and 59% noticed the doorways with semi-circular arches, which 37% found important.
- Visitors observed that these features were extraneous to the Castle's function as a fortress and appreciated the beauty and intricacy of the design. As ever, the visitors were blown away by the preservation they observed.

Representative sample of quotes:

"Civilian side of life in contrast to the military side."

"These are good features you don't get everywhere. They are in good condition."

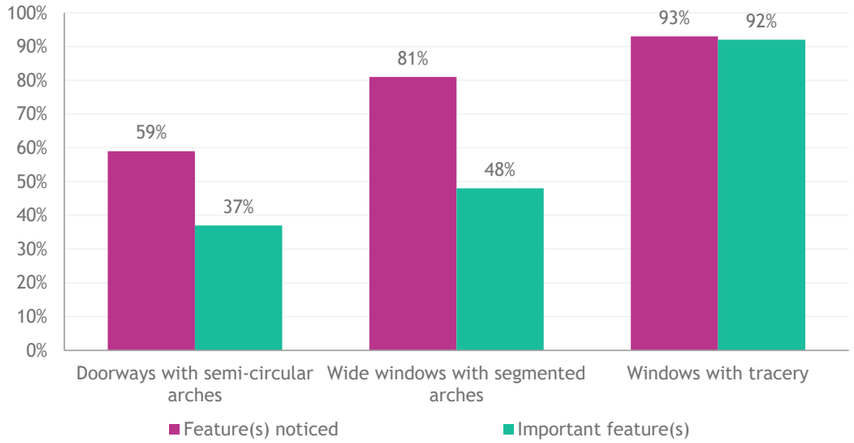
"Pretty and intricate - clever!"

"Survival of window tracery -it is remarkable and very attractive."

Savoyard features

Which of the following features did you notice on your visit to Caernarfon castle today?

And: Which, if any, would you say were important to your experience?



Base features noticed: 325

Margin of error: 5%

Base important features: 251

Margin of error: 6%

What other comments do you have about these features, if any?



Base: 158

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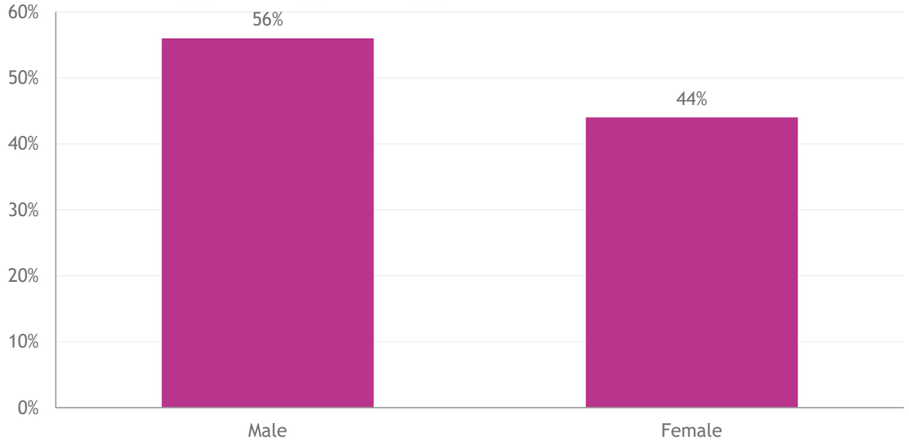
Non-visitor panel survey

Demographics

- 56% identified as male and 44% identified as female.
- The largest single age group of all respondents was 65 or older (32%); 22% identified as 55-64 and 19% as 45-54.
- 87% identified as being from a White ethnic background; 11% identified as White British and 6% as White other.
- 6% identified as being from a mixed or multiple ethnic background, 3% from an Asian or Asian British background, and 3% as other.
- 38% identified a degree & professional/vocational equivalents as their highest level of educational qualification, and 8% identified A-level, vocational level 3 or equivalent.
- 32% of all respondents said their day-to-day activities were limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months; 11% are limited a lot and 21% are limited a little.

Sex

Are you…

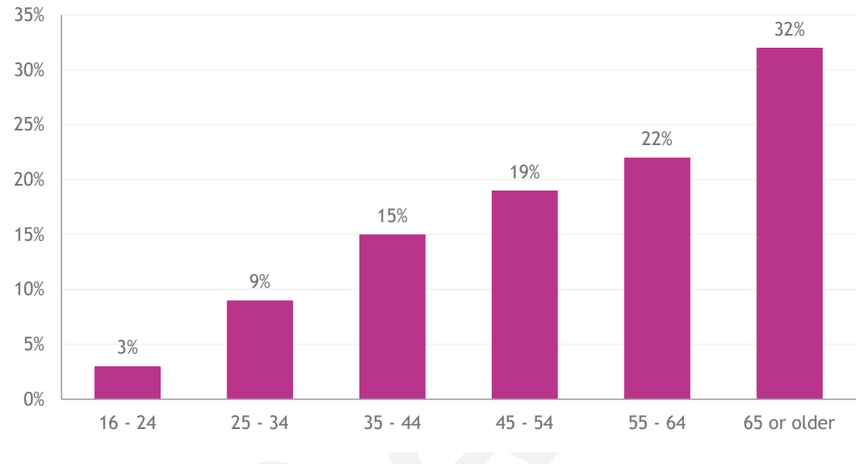


Base: 292

Margin of error: 6%

Age

Which of the following age groups do you belong to?

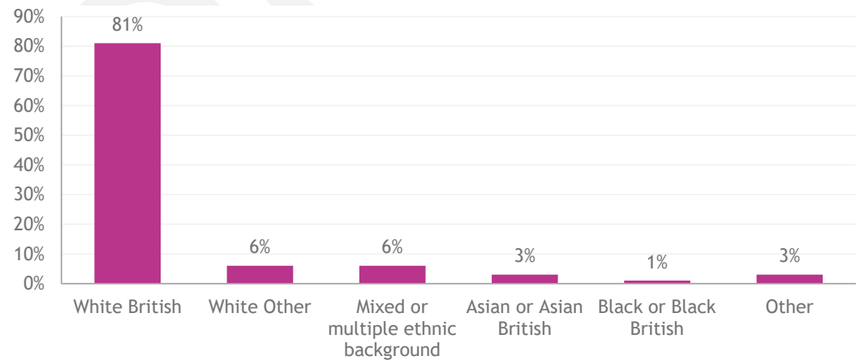


Base: 297

Margin of error: 5%

Ethnicity

What is your ethnic group?

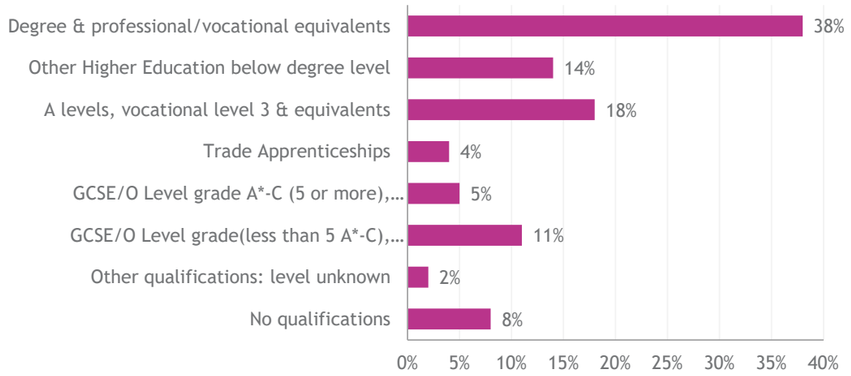


Base: 284

Margin of error: 5%

Education

Which of the following best describes your highest educational qualification?

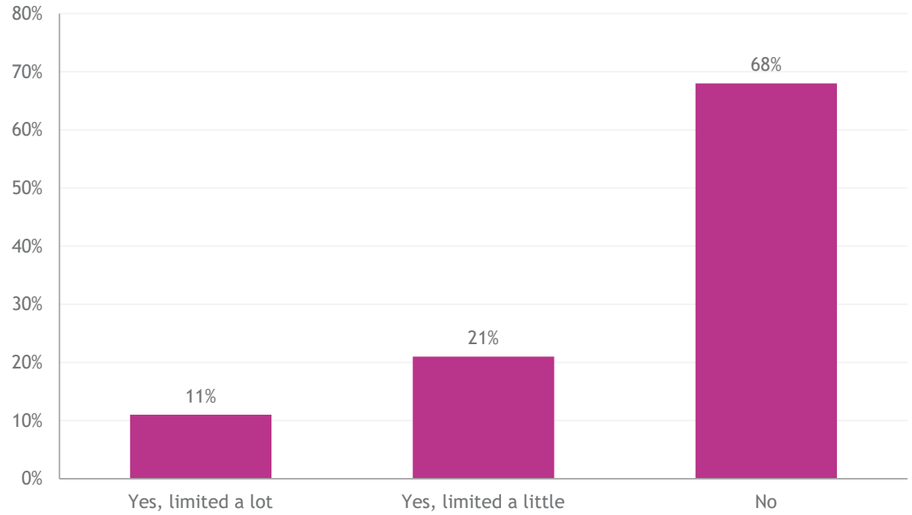


Base: 300

Margin of error: 5%

Disability

Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?



Base: 284

Margin of error: 5%

DRAFT

Geography



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Audience Spectrum profiling

The three most prominent Audience Spectrum* segments in the sample are **Dormitory Dependables, Trips and Treats and Homes and Heritage.** 57% of all respondents belong to one of these three groups.

- **Dormitory Dependables (23%)**: A significant proportion of arts audiences are made up of this dependably regular if not frequently engaging group. This segment shows a preference for heritage activities alongside popular and more traditional mainstream arts. Many are thriving well-off mature couples or busy older families. Lifestage coupled with more limited access to an extensive cultural offer mean culture is an occasional treat or a family of social outing.
- **Trips and Treats (17%)**: This comfortably well-off segment are reasonably culturally active and are interested in mainstream arts and popular culture, with their choices often influenced by children, family and friends. They have an above average attendance at museums and galleries, but most particularly at heritage sites.
  Due to their prominence in the population and the greater opportunity for local engagement in London, they do appear at significant levels in London audience profiles; particularly for free, outdoor, events.
- **Homes and Heritage (17%)**: A mature group with average engagement in the arts. A large proportion are National Trust members with a particular interest in classical music and amateur dramatics, and a clear preference for mainstream programming. They are most likely to visit a heritage site and are broadly positive about arts and culture.

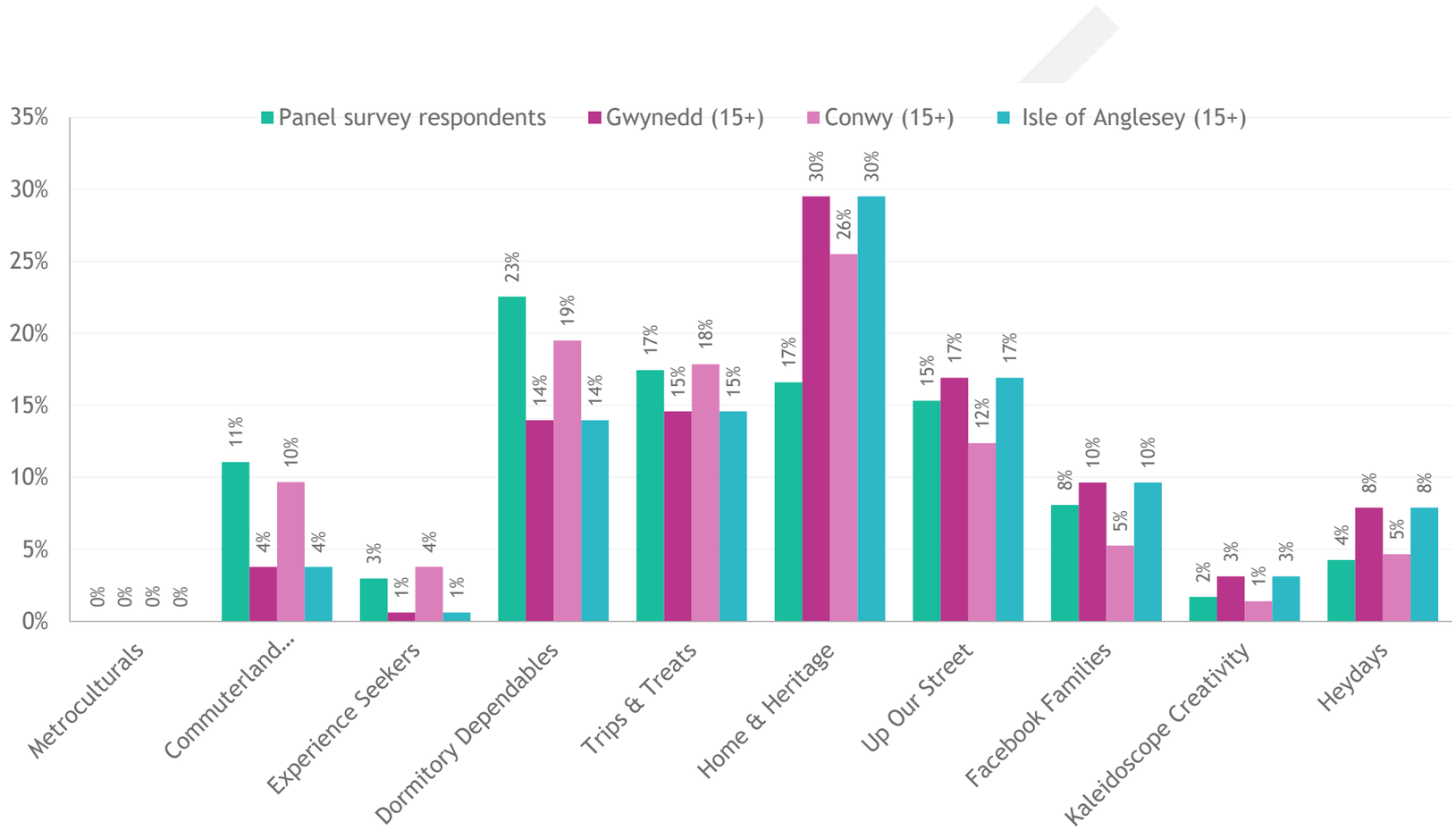
*An outline of all the segments is available in the appendices.

Population context

- **Dormitory Dependables:** This group underrepresented in the Gwynedd and Isle of Anglesey population, but is highly reflective of the Conwy population (27%).
- **Trips and Treats:** This group are highly representative of all three populations (35%).
- **Homes and Heritage:** This group is highly underrepresented against the three populations.

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Audience Spectrum profile



Base: all respondents who provided a valid postcode that matched to an Audience Spectrum segment - 235

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Leisure activities and engagement with culture

The respondents indicated generally medium and frequent levels of engagement with leisure activities, with the most popular being cinema going (49%), a visit a museum or heritage site (42%), a visit to the library (37%), and theatre going (30%).

Engagement patterns

- 58% of all respondents engage in leisure activities at least once per month.
- The purple bar for 'none of these' shows respondents who were screened out for the rest of the survey. One fifth of those who received the survey had done none of these things, which is a fairly high proportion, indicating a low engagement in culture overall.

Engagement in activities in the broad North Wales area

- Castles are clearly the more popular attractions in the North Wales area, over the houses and estates of the National Trust. 15% of all respondents have been to Conwy Castle in the past 5 years, 11% have been to Harlech Castle and Beaumaris Castle, 10% to Penrhyn Castle and 8& to Denbigh Castle.
- Plas Newydd House and Gardens is the commonest place to have visited after the castles with 5% of all respondents having visited there in the last 5 years.
- Looking only at the respondents from North Wales, there is very little difference in preference for attendance, with castles remaining the more popular option over National Trust and other houses and stately homes.

Engagement in the Gwynedd area all respondents

- 40% of respondents had not visited or participated in any leisure activities in the Gwynedd are in the last 12 months.
- 21% of respondents had been to a castle in the Gwynedd area in the last 12 months.
- 20% had been to the cinema, 13% had visited Portmeirion, and 12% had been to a library in the last 12 months.
- There is a similar pattern of attendance among the North Wales respondents when compared to all respondents, with visiting the cinema (31%) and visiting a castle (27%) the most common leisure activities to have engaged in in the Gwynedd area. There are slightly higher levels of engagement in leisure activities in the Gwynedd area among North Wales respondents overall.

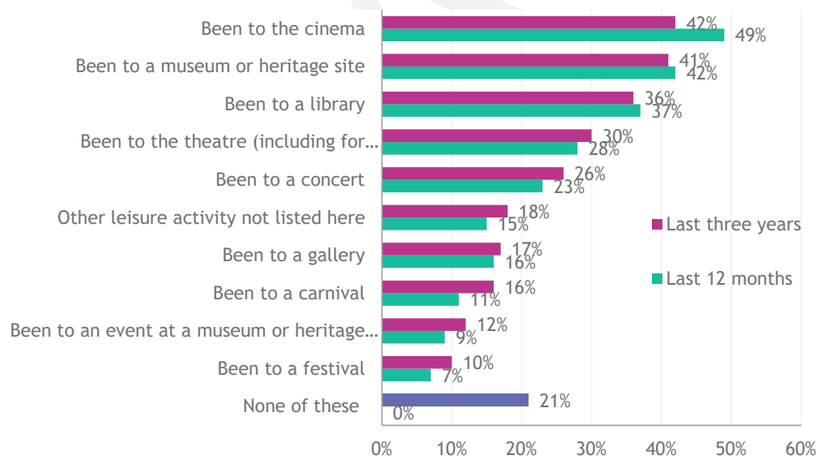
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Motivations for visiting or participating in leisure activities in the Gwynedd area

- The most popular general motivation for visiting or participating in leisure activities in the Gwynedd area in the last three years were to have a relaxing day out (37%), to spend time with family/friends (35%), and to enjoy the atmosphere (28%).
- Other general motivations included to do something new/ out of the ordinary (27%), to escape from everyday life (25%) and to be entertained (25%).
- 22% of respondents identified spending time with family/friends as their main motivation and 13% to have a relaxing day out.
- The purple bar at the bottom of the chart shows those who were screened out of the survey as they had been to Caernarfon Castle in the past 5 years. This is a fairly high proportion, at 29%, indicating that the Castle is a popular destination.

Engagement with different types of leisure activities

Which of the following types of activities have you done in the last three years / 12 months?



Base last three years: 759

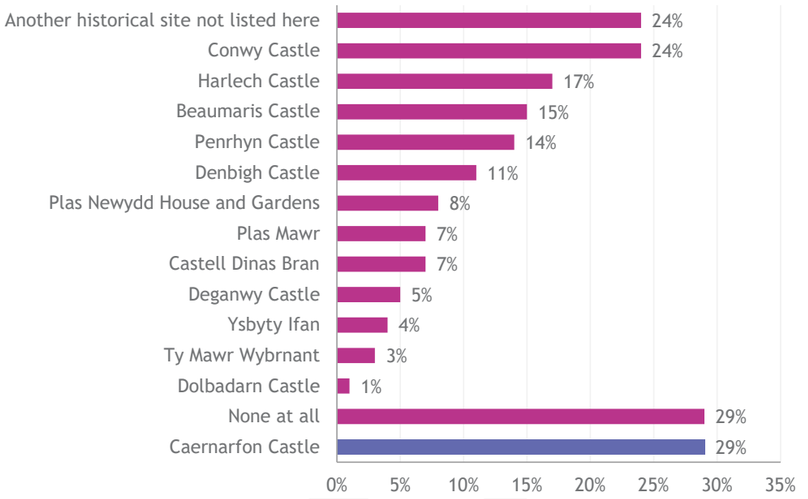
Base last 12 months: 410

Margin of error last three years: 4%

Margin of error last 12 months: 5%

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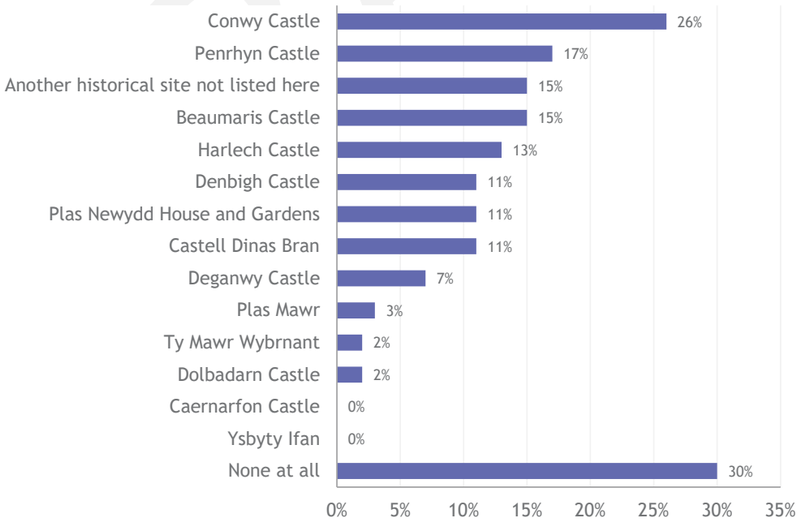
Which of the following museums have you visited in the last five years?



Base: 588

Margin of error: 3%

North Wales respondents only



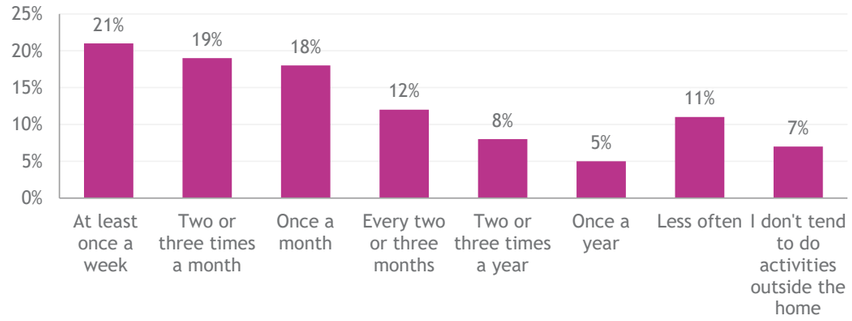
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Base: 113

Margin of error: 8%

Frequency of engagement with leisure activities

How often do you tend to do leisure/recreational activities outside the home?



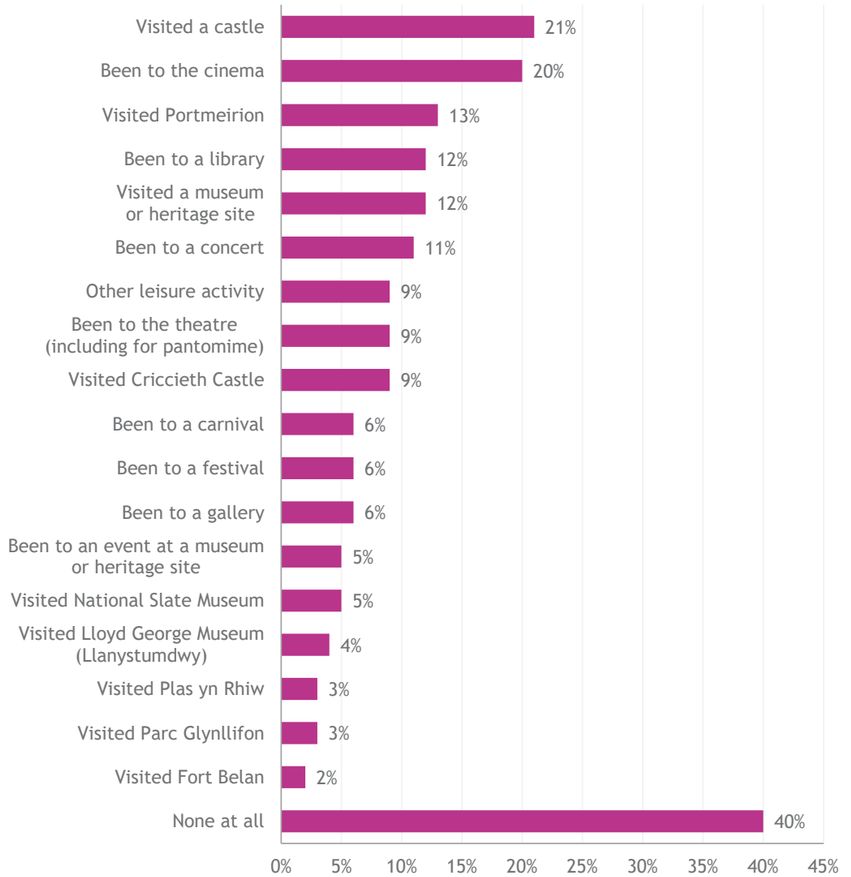
Base: 272

Margin of error: 5%

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Engagement with leisure activities in the Gwynedd area

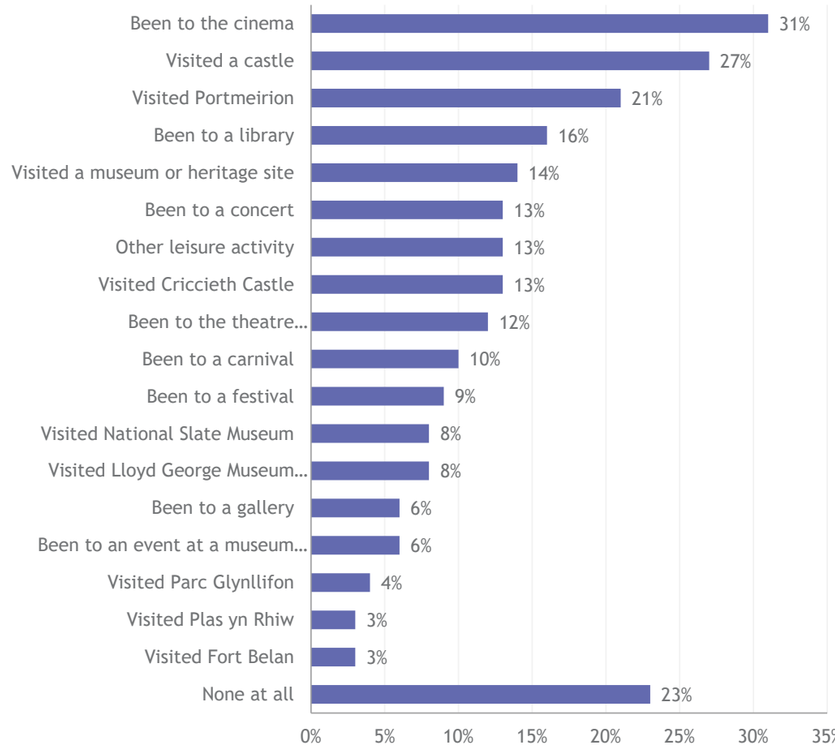
Which of the following have you done in the Gwynedd area in the last three years / 12 month?



Base: 299

Margin of error: 5%

North Wales respondents only

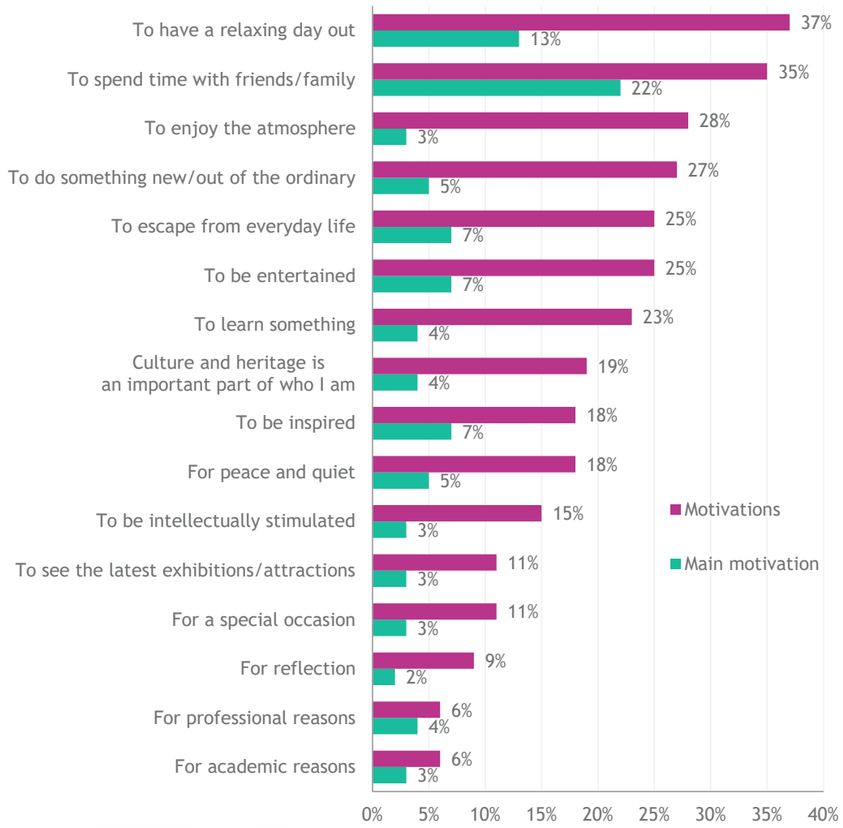


Base: 117

Margin of error: 8%

Motivations for leisure activities in the Gwynedd area

Which of the following describe your motivations for the leisure activities have you done in the Gwynedd area in the last three years?



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Base: respondents who have visited or participated in leisure activities in the Gwynedd area in the last three years - 179

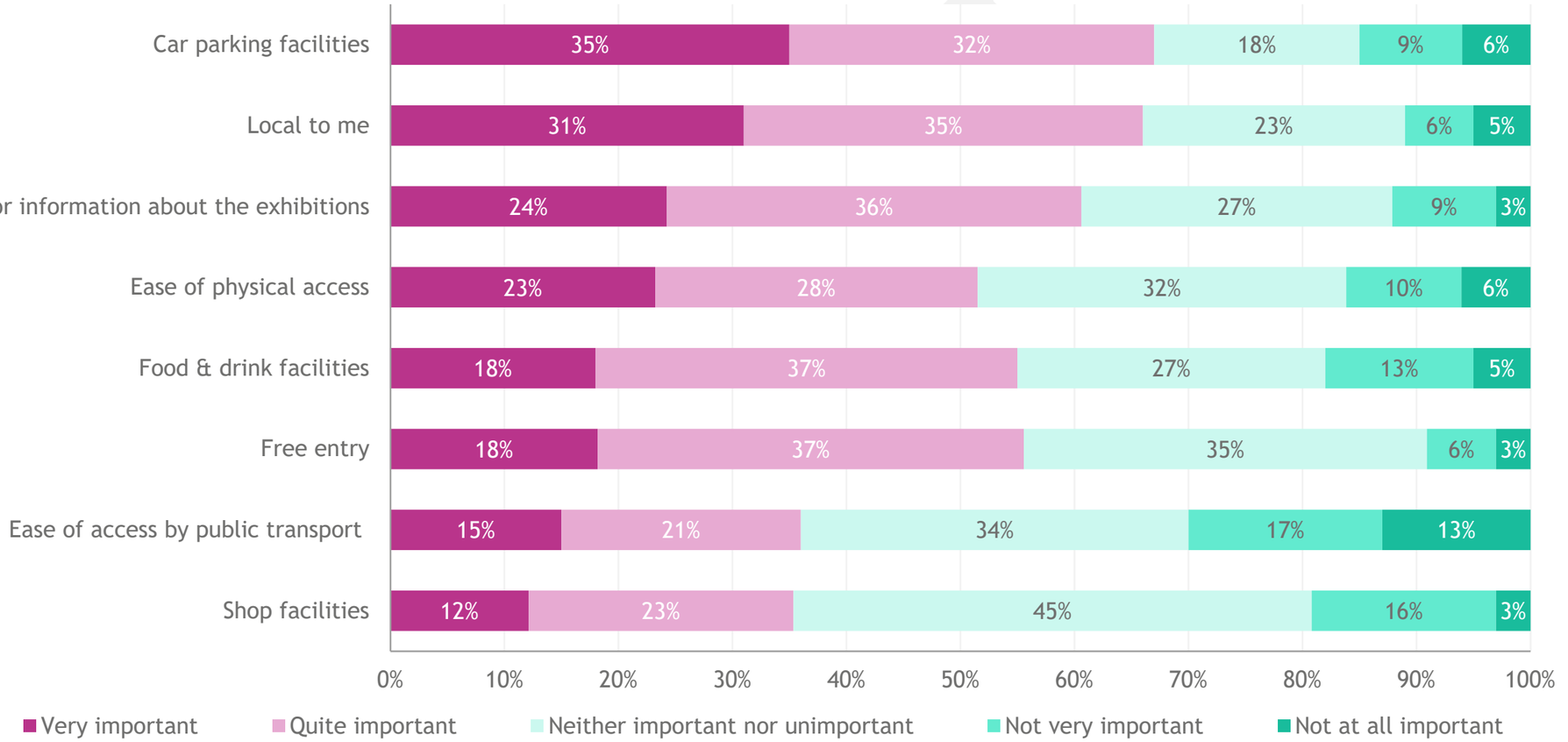
Decision making about things to do in the Gwynedd area

- The most important factors when making decisions about places to visit or activities to participate in, were car parking facilities, the area or neighbourhood and prior information about exhibits.
- 67% of respondents said that car parking facilities were either ‘Very important’ (35%) or ‘Quite important’ (32%) when making decisions about places to visit.
- 66% of respondents said that the area or neighbourhood was either ‘Very important’ (31%) or ‘Quite important’ (35%) when making decisions about places to visit.
- 74% of respondents said prior information was ‘Very important’ (24%) or ‘Quite important’ (36%) when making a decision.
- Ease of physical access (51%), food and drink facilities (55%), free entry (55%) and ease of access by public transport (36%) were also rated as ‘Very important’ or ‘Quite important’ factors in the decision making process.

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Overall decision making factors

How important are the following in your decision to visit or participate in leisure activities in the Gwynedd area?



Base: respondents who have visited or participated in leisure activities in the Gwynedd area in the last three years - 179

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Pre-visit perceptions of Caernarfon Castle

- 96% of all respondents had heard of Caernarfon Castle and 4% had not heard of Caernarfon Castle.
- The main thing all respondents expect from a visit to Caernarfon Castle is to see stories about the history of the Castle (65%).
- A café (61%), information and displays about the domestic life of former inhabitants (53%), a gift shop (52%), and historical weaponry (48%) also feature highly as expectations about what to see or do at Caernarfon Castle.
- Of those who have heard of the Caernarfon Castle, 'Historical' (76%), 'Interesting' (67%), and 'Traditional castle' (55%) were the most identified words by respondents to describe their expectations of Caernarfon Castle.
- Also featuring highly to describe respondents expectations of Caernarfon Castle were 'Architectural' (41%), 'Famous' (40%), and 'Important' (37%).

Future visits to Caernarfon Castle

- 52% of respondents said that they would 'Definitely' (29%), 'Probably' (23%) or 'Maybe' (31%) consider going to Caernarfon Castle.
- 16% of respondents said that they would 'Probably not' (11%) or 'Definitely not' (5%) consider going to Caernarfon Castle.
- The main reason respondents said they would visit Caernarfon Castle in the future was due to an interest in Welsh history (41%) and for an outing with friends and family (38%).
- Other reasons identified for visiting in the future were due to a general interest in castles (36%), because it is an iconic building (27%), an interest in medieval history (23%), and/or because of an interest in architecture (17%).
- Asked what would encourage them to visit, the main theme to emerge from responses was a desire to see discounts or deals available to holiday-makers and locals; this included comments about the content of the Castle in addition to more practical information such as where it is, how to get there, and what else visitors might do in the area.
  There were also a large number of comments related to one off events and re-enactments being a tempting draw to the Castle.

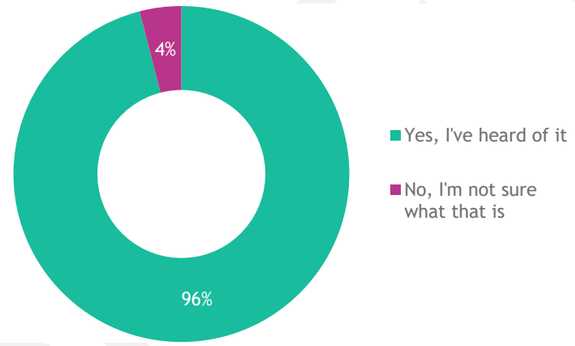
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Reasons for not visiting Caernarfon Castle

- The main reasons for not visiting Caernarfon Castle were lack of interest in castles (19%), the cost of travel (13%), that they had heard it wasn't that good (10%), followed by admission costs (10%).
- Asked why they had not visited the Castle, the responses indicate that the key barrier to visiting is lack of time and family commitments. This was cited by many of the respondents, along with distance from the castle and the potential cost.

Pre-visit perceptions of Caernarfon Castle

Have you heard of the Caernarfon Castle?



Base: 226

Margin of error: 5%

What would you expect from a visit to Caernarfon Castle?

history

something for all the family

well preserved Facilities

"History and culture of the region."

"Lots of information for children to see the history of the castle, a souvenir shop, activities for the family."

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“A castle in a good state of repair.”

“To see a wonderfully preserved castle and artefacts in a fantastically preserved setting.”

“A good view of History similar to that of Caerphilly, Cardiff castle and others local to me. Full of information and interactive.”

“An historical & informative but fun experience”

“A place to take great photographs.”

“I would expect Castle! We also expect to see information boards and gift shop.”

“A day out with activities aimed at young children, an opportunity to learn about life in the castle with outside.”

“Learn the history of the Castle, the fabric, old legends, history of Kings, Princes and the past.”

“Explanation of the construction of the Castle and of its role in the context of the historical period.”

“Time by the sea. Fantastic views of Anglesey and the area around. Good fun for children. Interest in the history, both recent and older. In a lovely town.”

“Lots of information for children to see the history of the castle, a souvenir shop, activities for the family.”

“I would expect a very interesting day in a beautiful part of Wales. The castle is so loved and famous I would expect a really lovely experience and good facilities, food, refreshments, gift shops etc.”

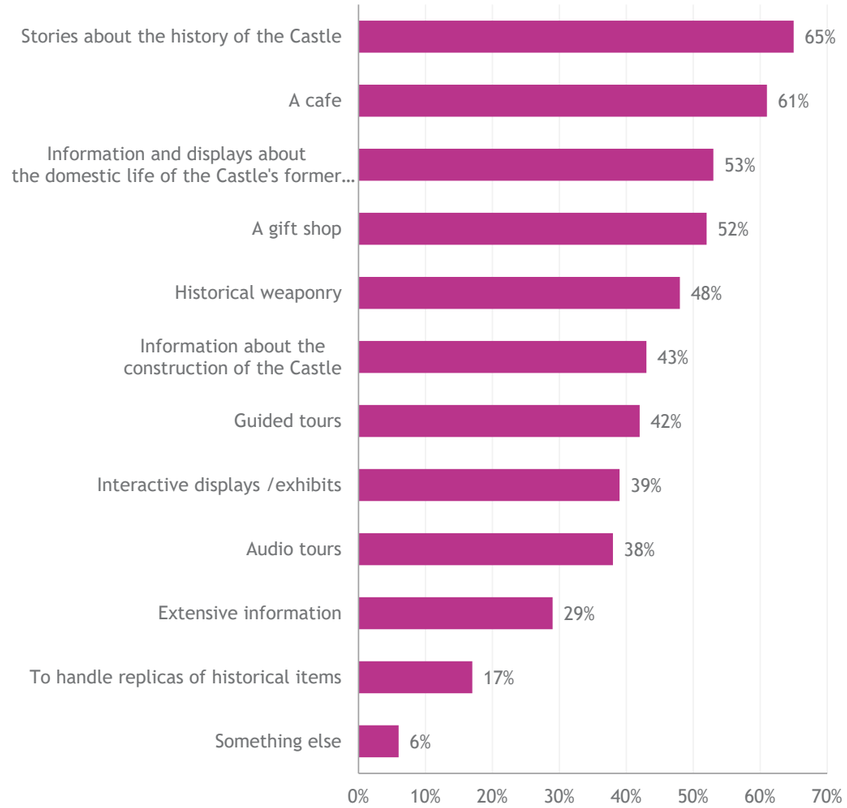
“Old castle showing its part in Welsh history, and something all the family.”

“History, interactive displays, peace and quiet, to learn something.”

“A trip into the past learning about why the castle was built, who by, what for etc.. To see the children have fun and learn at the same time, much more interesting than reading it in a book, they can actually live it.”

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What would you expect to see and do at Caernarfon Castle?



Base: 300

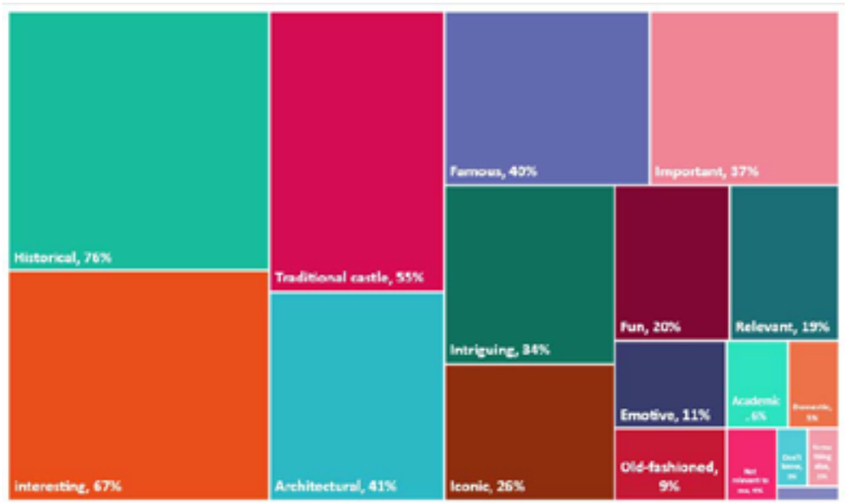
Margin of error: 6%

Base: 300

Margin of error: 6%

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Which of the following words would you use to describe your expectations of Caernarfon Castle?

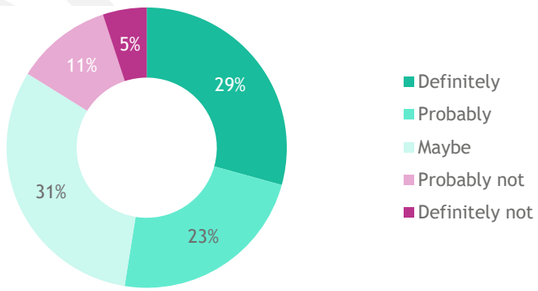


Base: respondents who have heard of Caernarfon Castle - 217

Margin of error: 7%

Future visits to the Caernarfon Castle

Would you consider going to Caernarfon Castle?

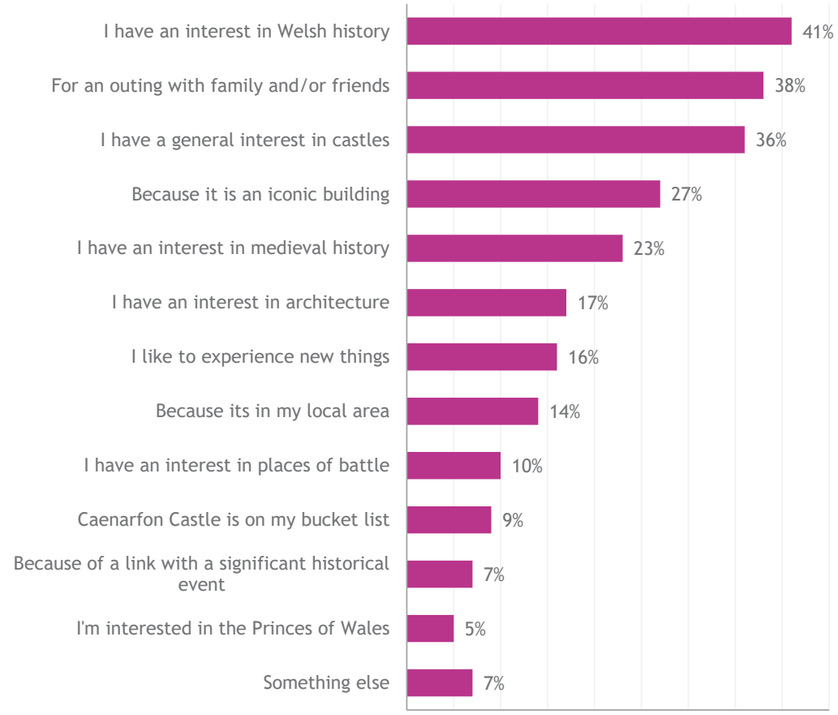


Base: 300

Margin of error: 5%

Why would you visit the Caernarfon Castle?

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Base: respondents who would definitely /probably /maybe visit Caernarfon Castle in the future - 252

Margin of error: 6%

What's the one thing that would encourage you to visit Caernarfon Castle?

Free entry/ discounts

in the local area

special event finding the time

Base: respondents who would definitely /probably /maybe visit Caernarfon Castle in the future - 252

"A display or event happening there."

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"A WW1 celebration of the Welsh Regiments event on 11 11 2018."

"An exciting exhibition taking place. A nice sunny day would also help!"

"A reasonable entry price, and ease, cost of parking."

"Better parking."

"Better transport connections."

"That e is part of a package while on holiday in the area e.g. a reduction entrance price associated and other activities may."

"Large visitor centre, indoor."

"Events are specific to children, more information about other activities to do in town."

"Disability access."

"Discounted tickets, special event."

"Free entry for locals."

"Good facilities."

"Historical re-enactment of a battle in the grounds or similar i.e. a play in traditional costume."

Reasons for not visiting Caernarfon Castle

What, if anything, has so far prevented you from visiting the Caernarfon Castle?



Representative quotes in response to the question above:

"We almost visited the Castle at that and made the journey to North Wales, but due to the price of entry (especially small children), it did not make financial sense."

"Distance and cost."

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"Distance and time only, I live in Flintshire but would certainly like to visit the castle again soon."

"Having a caravan in Pwllheli we pass thru Caernarfon regularly but always on way there or way home. To make us visit it would have to be cheap and fun for kids."

"Distance and transport links from mid-wales."

"I have been told it is quite difficult to park in Caernarfon, my husband has Parkinson's and cannot walk too far without getting tired. We do have a Blue Badge and do intend to try soon and see if we can park in the immediate area."

"I have visited Caernarfon Castle but it was some time ago. There is so much of interest in North Wales that I don't often visit places more than once over 5 years."

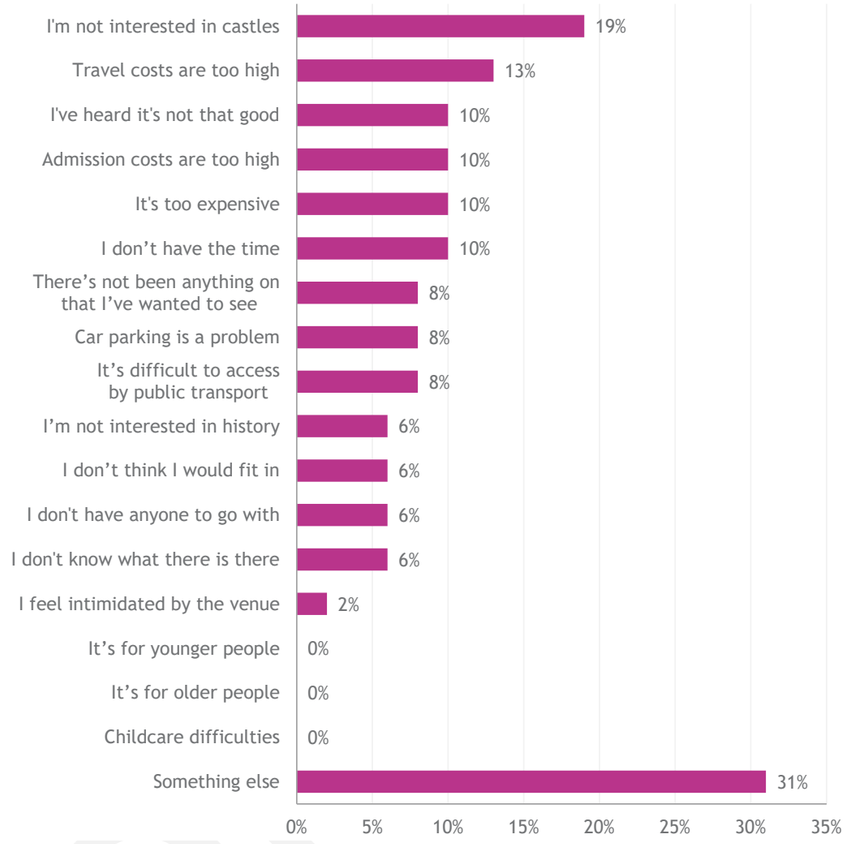
"Family commitments."

"I have young children."

"Working full time."

Are there any particular reasons why you wouldn't visit Caernarfon Castle?

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Base: respondents who would probably not /definitely not visit Caernarfon Castle in the future - 48

Margin of error: 11%

Understanding of Caernarfon Castle as a World Heritage Site

- 49% of all respondents are aware that Caernarfon Castle is a World Heritage Site. 47% are unaware and 4% are unsure.
- Looking at the respondents from North Wales alone, there is a greater awareness of Caernarfon Castle as a World Heritage Site, with 60% aware of this, 39% unaware and 1% unsure.

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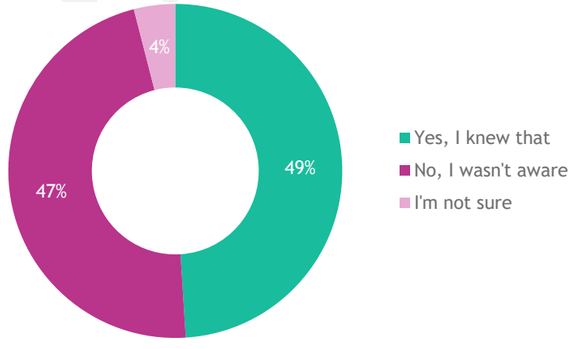
Perceptions and attitudes regarding historical sites

Over half of respondents who would visit Caernarfon Castle would feel ambivalent about the Castle's position as a World Heritage Site being a motivation for visiting. Respondents are keen for historical sites to be preserved as closely as possible to the way they were built but almost an equal proportion feel they should also be sensitively improved to maximise access.

- 56% of respondents who would definitely, probably or maybe visit Caernarfon Castle would be neither more nor less likely to visit when they considered the Castle as World Heritage Site.
- That the Castle is a World Heritage site would make 27% of respondents who would like to visit the Castle more likely to visit, 7% said it would make it much more likely, and 20% more likely.
- 17% of respondents who would visit Caernarfon Castle said the fact that it is a World Heritage site would make it less likely that that would visit, 10% selected less likely and 17% selected much less likely.
- 68% of respondents agree that it is important to preserve historical sites as closely as possible to the way they built. 33% agree strongly and 29% agree.
- 62% of respondents agree historical sites should be sensitively improved to maximise access, 29% of whom agree strongly and 33% agree.

Understanding of Caernarfon Castle as a World Heritage Site

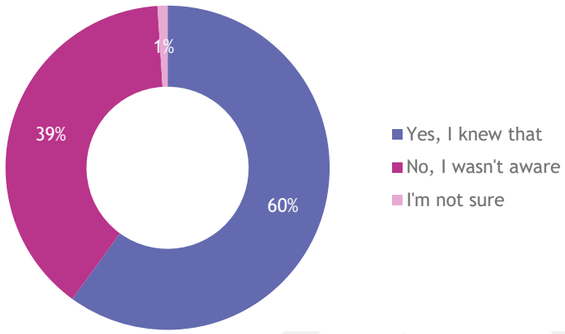
Are you aware that Caernarfon Castle is a World Heritage Site?



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Base, those who have heard of Caernarfon Castle: 205
Margin of error: 7%

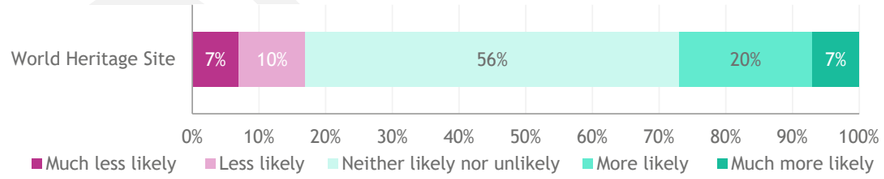
North Wales only



Base, those who have heard of Caernarfon Castle: 82
Margin of error: 11%

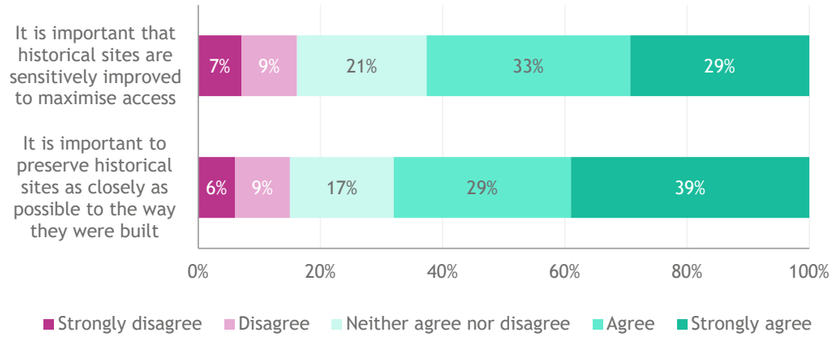
Perceptions and attitudes regarding historical sites

Does the fact Caernarfon Castle is a World Heritage site make it more or less likely that you would visit?



Base, those who would definitely, probably or maybe visit Caernarfon Castle: 249
Margin of error: 6%

How much do you agree with the following statements?



Base, those who would definitely, probably or maybe visit Caernarfon Castle: 249
Margin of error: 6%

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Information sources for local activities

The main sources of information about things to do or places to visit were friends and family, local newspapers, posters, and the websites of organisations.

- 33% of respondents said that friends were a source of information, and 16% that this was their main source.
- 31% of respondents said that family are a source of information. 12% said that it was their main source.
- 27% of respondents said that local newspapers was a source of information, and 9% said that it was their main source.
- Also featuring highly as sources of information they had seen, but not as main sources, were posters (21%), leaflets (19%), and council publications and websites (18%).

North Wales survey respondents select very similar top sources of information when compared with the whole sample with the key information sources being family, local newspapers, friends, posters and leaflets.

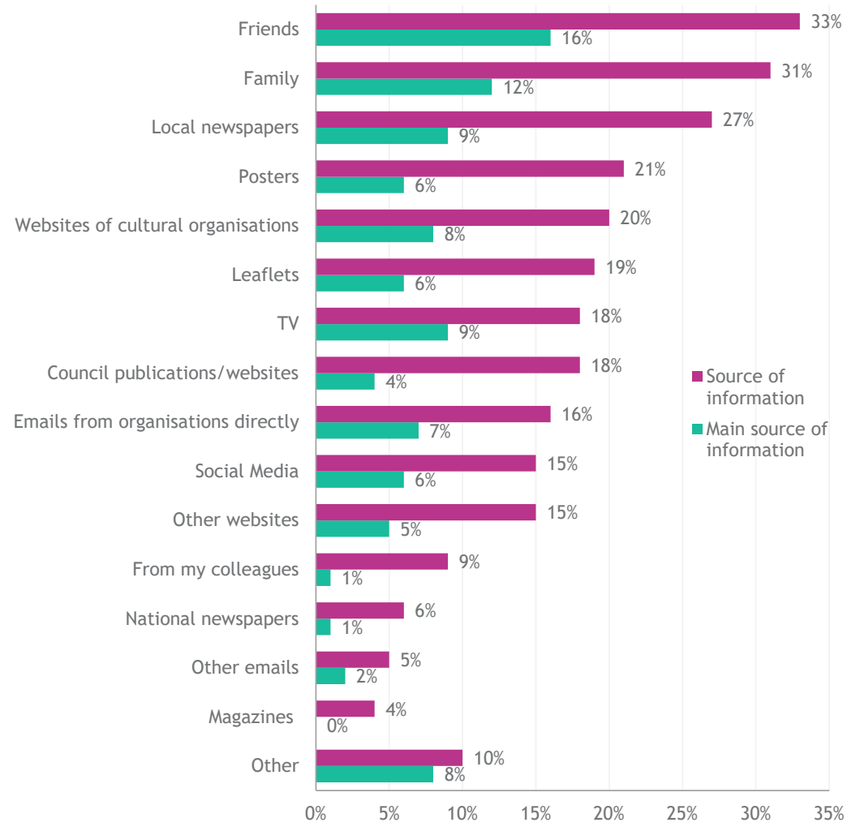
Information sources for Caernarfon Castle

Of respondents who have heard of Caernarfon Castle, the main sources of information they have seen or heard anything about the Castle in the last year or so is via word of mouth (10%), a leaflet (9%) and media coverage of Caernarfon Castle (7%).

- Also featuring as sources of information where they had seen or heard about Caernarfon Castle through a tourist information centre (7%), social media (6%), Caernarfon Castle website (6%), an advert (5%), and through an accommodation provider (2%).
- Of those that said social media was a source of information for Caernarfon Castle, 92% said Facebook, 8% said Google+, and 8% said other.

Information sources

Through which of the following do you ever see/receive information about places to visit or things to do in your local area?



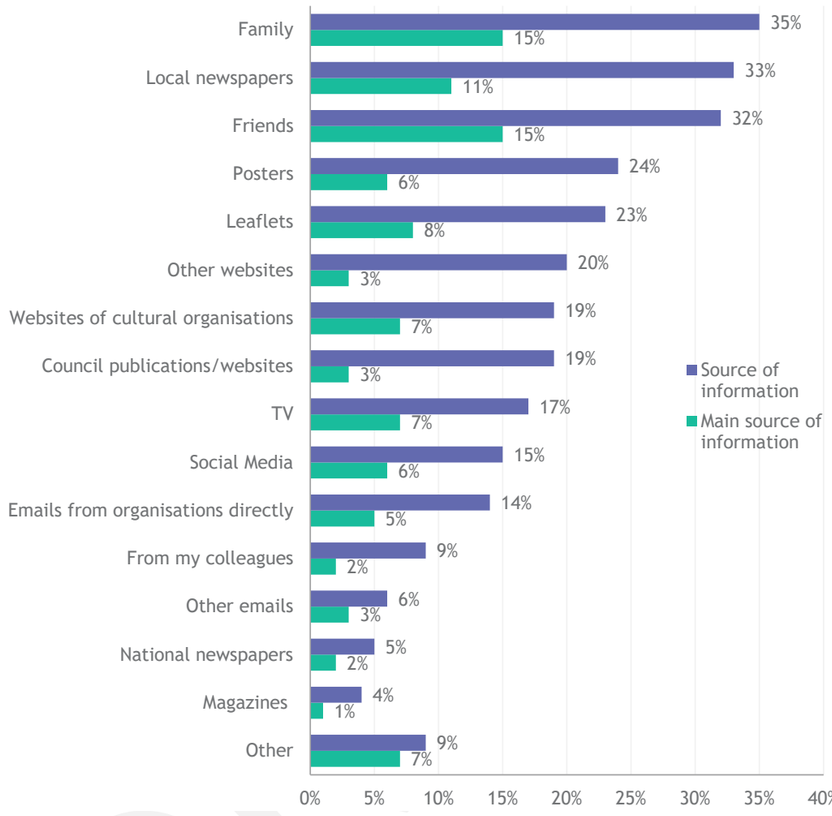
Base: 300

Margin of error: 4%

North Wales only

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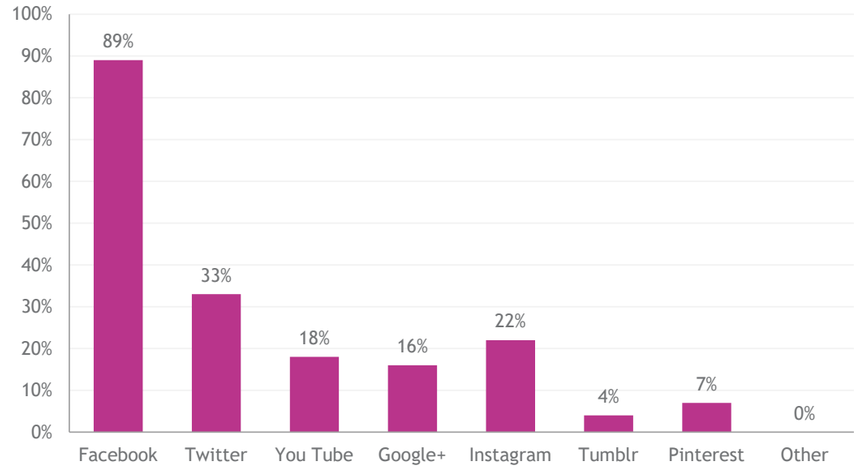


Base: 117

Margin of error: 6%

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Which of the following social media channels do you use to see/receive information about places to visit or things to do in your local area?

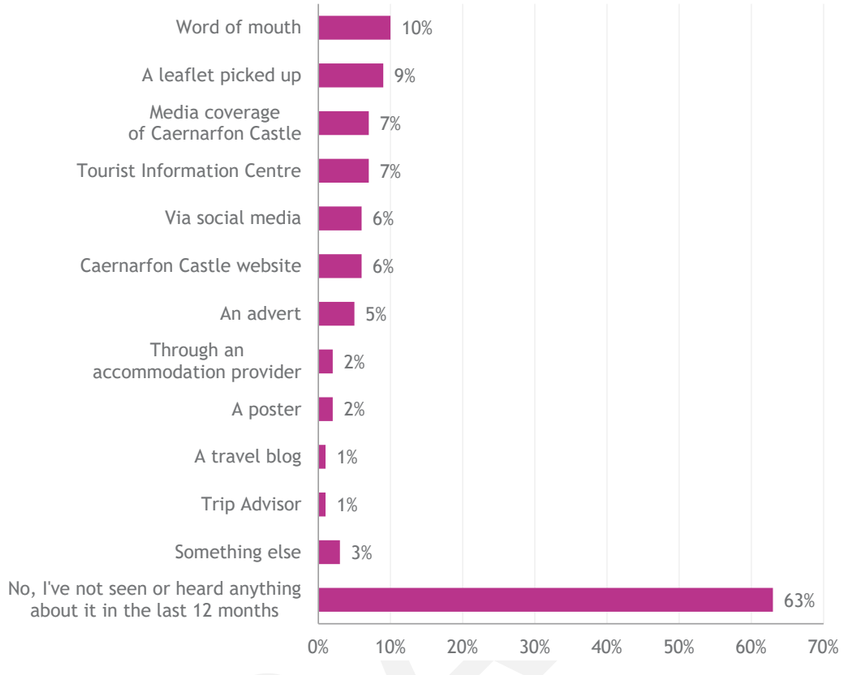


Base: respondents who use social media as a source of information for places to visit or things to do in their local area - 45

Information sources for Caernarfon Castle

In the last year or so, have you seen or heard anything about Caernarfon Castle through any of the following?

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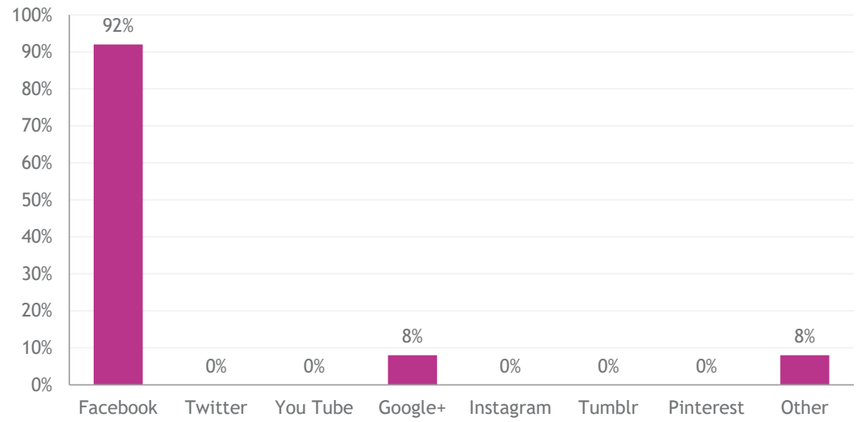


Base: respondents who have heard of Caernarfon Castle- 217

Margin of error: 4%

Through which of the following social media channels did you see or hear anything about Caernarfon Castle?

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Base: respondents who have heard about Caernarfon Castle through social media channels - 13

Margin of error: 15%

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Appendices

I. Visitor journey map infographic

Supplied as a separately appended excel document

II. Visitor journey mapping participant profiles

The table below gives a brief profile of the 15 participants that took part in the research. The interview number has been used throughout the report, and in the visitor journey infographic, to attribute direct quotations.

Interview Number	Date of visit	Demographics	First time or repeat visitor	Start time of interview and duration in the Castle
1	19/08/2017	Male, 35-44, Colchester, visiting with family	First time	11am 60 minutes
2	19/08/2017	Male, 55-64, Kettering, (retired History teacher), visiting with family	Repeat (last visit over 40 years ago)	12.25pm 60 minutes
3	19/08/2017	Male, 25-34, Derby, visiting with family	Repeat	1.30pm 120 minutes
4	19/08/2017	Female, 25-34, international visitor, Chile, visiting with a tour	First	2pm 30 minutes
5	19/08/2017	Male, 45-54, North Yorkshire, visiting with family	First	2.30pm 30 minutes
6	19/08/2017	Female, 16-24, Lincolnshire, visiting with family	First	3.15pm 90 minutes
7	19/08/2017	Female, 25-34, Loughborough, visiting with family	First	4pm 180 minutes
8	9/09/2017	Female, 45-54, overseas visitor – Australia, visiting with friend	First time	11:20 am 70 minutes
9	9/09/2017	Male, 45-54, overseas visitor – Australia, visiting in a couple	First time	12 noon 120 minutes
10	9/09/2017	Female, 24-35, London, visiting in a couple	First time	12:51pm 60 minutes
11	9/09/2017	Female, 65 or older, overseas visitor – New York, visiting with a tour	First time	1:15pm 90 minutes
12	9/09/2017	Female, 16-24, Manchester, visiting with family	Repeat	2.35pm 90 minutes
13	9/09/2017	Male, 35-44, Colwyn Bay, visiting with family	Repeat	3pm 120 minutes
14	9/09/2017	Male, 35-44, Bridgend, solo visitor	First time	3:45pm 150 minutes
15	9/09/2017	Male, 35-44, Colorado, visiting with family	First time	4:25pm 60 minutes

III. Visitor journey mapping discussion guide

Caernarfon Castle

Visitor Journey Mapping Discussion Guide

Introduction

Interviewer to complete the record sheet with the date, time, number of the interview, and visitor type (family, adult group, overseas, first time/ repeat visitor/ visit reason/ visit duration)

Interviewer to introduce themselves and The Audience Agency

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Aim of the research. Our focus today will be on understanding your experience of visiting Caernarfon Castle in quite a lot of detail.
Together we will build a timeline of your visit showing all the different things you have seen and parts of the castle you have visited. For each thing you have done or seen here we are interested to find out how engaged you felt at that part of the visit and what you thought of the quality of the presentation of the castle at each point. Emphasise importance of honest feedback, no right or wrong answers and all comments welcome.

Creating the timeline (Visitor journey map)

- *Just to kick us off, and before we get into the detail of your visit, could you tell me where you are visiting from?*
- *And could you tell me a bit about why you are visiting Caernarfon Castle today? What did you expect from your visit?*

PROMPTS: history, entertainment

Facilitator to mark the visit start time and end time onto the timeline.

- *What we will be doing now is filling in the gap between these two times with as much detail as we can about the experience.*

Facilitator to share the images showing each touch point

- *Please select the parts of the castle you remember being in or visiting and add these on to the timeline in order*

[If there is anything missing from the touchpoints these should be added into the timeline using post it notes]

For each touchpoint ask:

Can you tell me about this part of your visit? How did you feel at this point, and why?
On a scale 1-10 how personally engaged did you feel at this point in your visit, and why?
On a scale of 1-10 where would you rate this aspect of your visit in terms of quality and why?

[Use post-it notes and annotations to the timeline to layer up information on the experience focussed on the quality rating, engagement rating, emotions and any key quotes of bits of feedback that help us understand that response]

General questions about the visit experience

Staff interactions

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Did you speak to any staff when you first arrived? Whether yes or no - what impact did that have on the start to your visit?
Did you speak to any staff during your visit? How would you describe the impact of that on your visit experience?

Navigation

Overall how did you find navigating the building?
Do you have any feedback on the castle map, or the signage used in the building?

Information

How would you describe the information you saw about the castle and the displays during your visit?
How relevant was the information? Was there anything missing that you expected, or would like to have seen?
How accessible was the information?

Displays

Was anything missing from the exhibits that you expected to see?
What do you think about the way the exhibits and displays are arranged?

The shop

Did you visit the shop? And if so, did you buy anything? If not, why not?
What did you think of the range of items in the shop?

Pre-visit experience

Did you look at any of the castle's online resources before visiting? If yes, how useful did you find them?
How easy was it to find the castle?

Overall

Finally, thinking back to your visit today what would you say is the:

Best thing about your visit?
What's missing or in need of improvement?
How important is it that Caernarfon Castle is registered as a World Heritage Site? Would this make it more or less likely that you would visit?
Thinking about your whole experience today, how would you rate your visit on a scale of 1-10 (10 being the highest)?
Can you identify one thing that the castle could do to improve your visit enjoyment or encourage you to visit again?
Is there anything else you would like to add about your visit today?

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Thankyou

IV. Audience Spectrum segmentation

Audience Spectrum has been developed as part of the *Audience Finder* programme funded by Arts Council England as part of its strategic Audience Focus fund.

The development of *Audience Spectrum* draws together some of the largest and most robust sources of information about people and how they engage with arts and culture, including:

- The *Taking Part Survey* – the long established DCMS survey into people's leisure, culture and sport.
- Experian – lifestyle, consumer and demographic information drawn from over 850 million input sources and 400+ variables, and including Mosaic and the online analytics tool, Hitwise.
- Proximity indices – The Audience Agency's national overview of how well local populations are served by cultural provision.
- Audience Finder – the largest growing Big Data set in the cultural sector about audience behaviour, built on ticketing and primary research information.

We have used these information sources to make *Audience Spectrum* a tool that categorises people first and foremost on how they engage with arts and culture in a way that is very locally applicable.

As the *Audience Finder* big data set grows, we will learn more about each of the *Audience Spectrum* segments, adding depth, knowledge and new ways of applying these insights to grow audiences.

Segment descriptions

***Metroculturals** (Higher engagement)*

Prosperous, liberal urbanites, Metroculturals choose a city lifestyle for the broad cultural opportunity it affords. They are therefore interested in a very wide spectrum of activity, but many tend towards their own preferred artform or style. Although active museum attenders, more engage with the arts and many on a weekly basis. Working in demanding but rewarding professions, they are highly educated and have a wide variety of other interests from food and travel to current affairs and architecture.

***Commuterland Culturebuffs** (Higher engagement)*

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Affluent and settled with many working in higher managerial and professional occupations. Commuterland Culturebuffs are keen consumers of culture, with broad tastes but a leaning towards heritage and more classical offerings. Mature families or retirees, living largely in leafy provincial suburban or greenbelt comfort, they are willing to travel and pay for premium experiences, their habits perhaps influenced by commuting. Motivations are multiple, ranging from social and self-improvement, to the pursuit of learning opportunities for older children. They tend to be frequent attenders and potential donors.

***Experience Seekers** (Higher engagement)*

An important and significant part of urban arts audiences, these highly active, diverse, social and ambitious singles and couples are younger people engaging with the arts on a regular basis. Students, recent graduates and in the early to mid-stages of their careers, they live close to city centres, have easy access to and attend a wide variety of arts, museums galleries and heritage. Interests cover mainstream, contemporary and culturally diverse offers and attending is at the heart of their social lives. They are mostly in search of new things to do and have disposable income to spend on a variety of leisure activities like sports/arts memberships and frequent visits to cafes, bars and restaurants. Digitally savvy, they will share experiences through social media on their smart phones.

***Dormitory Dependables** (Medium engagement)*

A significant proportion of audiences are made up of this dependably regular if not frequently engaging group. Most live in suburban or small towns and show a preference for heritage activities, alongside popular and more traditional, mainstream arts. Many are thriving well off mature couples or busy older families; lifestage coupled with more limited access to an extensive cultural offer mean that culture is more an occasional treat or family outing than an integral part of their lifestyle.

***Trips and Treats** (Medium engagement)*

While this group may not view arts and culture as a passion, they are reasonably active despite being particularly busy with a wide range of leisure interests. Comfortably off and living in the heart of suburbia their children range in ages, and include young people still living at home. With a strong preference for mainstream arts and popular culture like musicals and familiar drama, mixed in with days out to museums and heritage sites, this group are led by their children's interests and strongly influenced by friends and family.

***Home and Heritage** (Medium engagement)*

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Conservative in their tastes, this more mature group appreciates all things traditional: a large proportion are National Trust members, while classical music and amateur dramatics are comparatively popular. While this is not a highly engaged group – partly because they are largely to be found in rural areas and small towns – they do engage with the cultural activity available to them in their locality. They look for activities to match their needs and interests, such as accessible day-time activities or content exploring historical events.

Up Our Street *(Lower engagement)*

Living reasonably comfortable and stable lives, Up Our Street engage with popular arts and entertainment and museums, and are also visitors of heritage sites. Many are older and have some health issues, living on average or below average household incomes, so access in all its forms can be an issue. Modest in their habits and in their means, value for money and low-risk are important factors in leisure decision making.

Facebook Families *(Lower engagement)*

Arts and culture play a very small role in the lives of this younger, cash-strapped group living in suburban and semi-urban areas of high unemployment. They are the least likely to think themselves as arty, while less than a third believe that the arts is important. Nevertheless, they do go out as families: cinema, live music, eating out and pantomime.

Kaleidoscope Creativity *(Lower engagement)*

Characterised by low levels of cultural engagement despite living in and around city areas where plenty of opportunities are within easy reach. A great mix of people comprise this segment with a wide range of ages, living circumstances, resources and cultural backgrounds all living cheek-by-jowl. Low incomes and unemployment can present barriers to accessing some cultural provision. Nevertheless, two thirds do engage with more popular and accessible culture annually, some of this in the local community and outside the mainstream. Free, local events like outdoor arts, festivals and carnivals may appeal, and so might popular offerings like musicals and music events.

Heydays *(Lower engagement)*

Heydays are the group least likely to attend arts or cultural events, believing that the arts are no longer as important or relevant to them as perhaps they once were. Many live in sheltered or specially adapted accommodation for older people, and are excluded from many activities due to a raft of health, access and resource barriers. If they do engage this is likely to be participatory such as craft and knitting, painting, reading and writing activities organised by their sheltered housing, church group or community library.

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Contacts

London Office
2nd Floor, Rich Mix
35-47 Bethnal Green Road
London E1 6LA
T 020 7407 4625

Manchester Office
Green Fish Resource Centre
46-50 Oldham Street
Northern Quarter
Manchester M4 1LE
T 0161 234 2955

hello@theaudienceagency.org

www.theaudienceagency.org

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