

Westgate Hotel Columns Survey Record

for

Newport Museums & Heritage Service
Newport

Date: 26.04.2022
Project No.: AD131

Prepared by

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ArchaeoDomus
Archaeological & Heritage Services

Contents

Introduction.....	2
Scope of Works.....	3
Location.....	3
Survey Method.....	4
Processing Results.....	4
Endoscope Method.....	5
Standards and Guidance.....	5
Limitations.....	5
Westgate Hotel Columns.....	6
Column 1.....	7
Column 1 – Hole A1-A2.....	8
Column 1 – Endoscope.....	9
Column 2.....	11
Column 2 – Hole B1-B2.....	12
Column 2 – Hole C1-C2.....	13
Column 2 – Endoscope.....	14
Appendix I.....	15

Introduction

ArchaeoDomus were commissioned by Newport Museums & Heritage Services to undertake a measured survey and endoscope investigation of the columns at the Westgate Hotel, Newport. The columns are reputed to be those that supported the porch of the original Westgate Hotel (right), built in 1779, which in 1839 saw British Army troops fire at a march of Chartists, lead by John Frost. During the event, 22 people were killed and a further 50 were wounded. The holes are reported to be those caused by the musket fire of the British troops. This work is to record and investigate the columns and provide information to the Newport Museum & Heritage Services and ballistic experts, as part of a project to examine the validity of this.

Fieldwork was undertaken on 27th April 2022 and concluded on the same day.

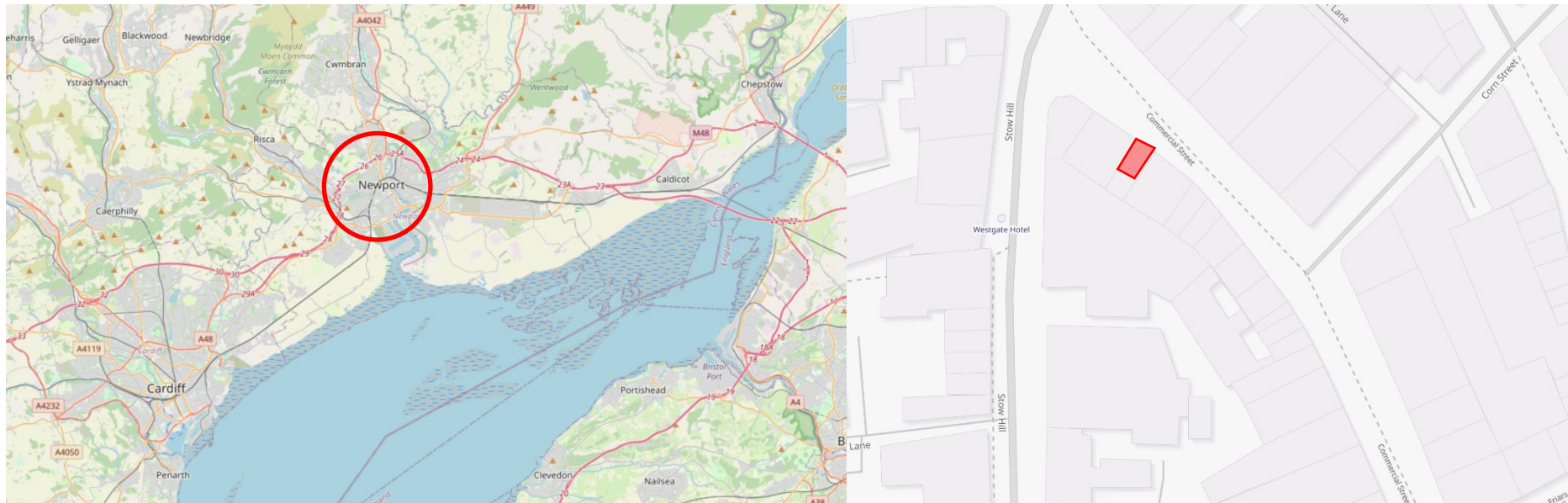
With thanks to Oliver Blackmore for arranging this project and commissioning ArchaeoDomus to undertake the programme of investigation and recording, and to David Daniel of Our Chartist Heritage for providing access and helping on the day.



Scope of Works

1. The survey involved the controlled digital metric survey (LiDAR and DSLR capture) of the columns believed to belong to the Westgate Hotel.
2. Internal photographs of the holes using an endoscopic camera.
3. Preparation of a report documenting findings.
4. 3D models hosted online for public engagement purposes.

Location



Grid Reference: ST 31057 88109

Lat/Long: 51.587598 , -2.9965133

What3Words: stuck.glad.shave

Nearest Postcode: NP20 1JL

Survey Method

1. All survey work was undertaken with handheld LiDAR scanner and DSLR camera, with additional dimensions taken with a tape measure and Disto.
2. On site models were produced using LiDAR equipped camera and processed using Polycam Cloud Services.
3. Off site models were produced from DLSR photography and processed using Agisoft Metashape Professional, dimensional control was applied using scale bars dimensions collected on site. These models have been used for this report and online accessible models.
4. Models were exported to OBJ for additional processing in Rhino 7 to produce sections and orthographic elevations.

Processing Results

AD131-PM-CLM1 – Column 1 – Photogrammetric Model		
Photographs	Project Size	Dense Point Cloud
171	1.46 GB	28,586,944
Mesh Face Count	Texture Size (pixels)	RMS Error
1,557,790	8,096 × 8,096	0.17

AD131-PM-CLM2 – Column 2 – Photogrammetric Model		
Photographs	Project Size	Dense Point Cloud
245	1.59GB	31,317,483
Mesh Face Count	Texture Size (pixels)	RMS Error
1,422,374	8,096 × 8,096	0.21

Endoscope Method

1. An endoscope with radial LED light was used to capture photographs of the inside of each hole.
2. A laptop provided live video and was used to capture photographs.
3. Each backside of each hole was accessed from its corresponding hole; entrance/exit.
4. Additional photographs were taken with mobile phone camera, with light provided by a torch.

Standards and Guidance

1. All work has been undertaken to the following Historic England guidance:
 - a. *Photogrammetric Applications for Cultural Heritage; Guidance for Good Practice* (2017)
 - b. *Measured and Drawn* (2010)
 - c. *Metric Survey Specifications for Cultural Heritage* (2015).

Limitations

1. As photogrammetry relies on texture, light, and clear lines of site, it has not been possible to capture the columns in their full.
2. The wall-facing elevations could not be captured during fieldwork.

Westgate Hotel Columns

The columns are currently located in the lobby of the Westgate Hotel, where they were relocated after the original hotel of 1779 was demolished and the current was built in 1884. The columns are believed to have been damaged during the Chartist march into Newport in 1839, led by John Frost. This culminated with 22 people killed and 50 wounded by the British Army troops stationed in the town. The musket fire of that day is reputed to have left holes in the Westgate Hotel columns, which once supported its porch.

They are constructed of pine, possibly Baltic in origin, and finished with a thin plaster and many layers of paint.

Three pairs of holes are present, one set in Column 1 (A series) and two in Column 2 (B and C series). Each set of holes are at roughly the same level and presumed to be formed of entry and exit of possible musket balls.

Pieces of unusually shaped material of a white colour were identified inside each column, which were photographed and identified as requiring further investigation for the possibility of being lead.

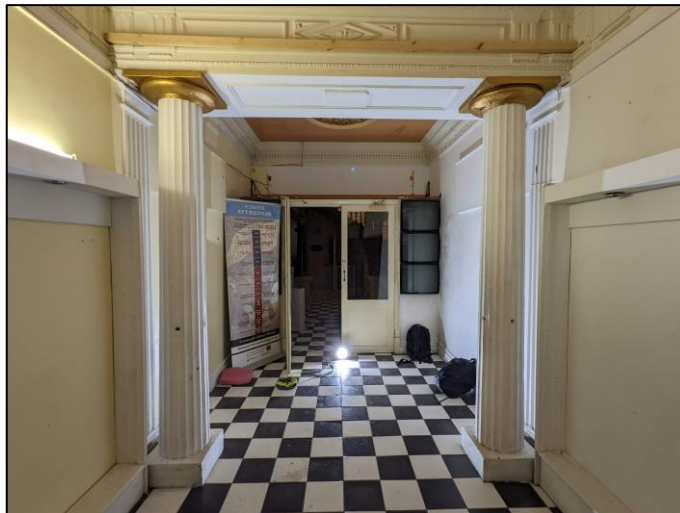
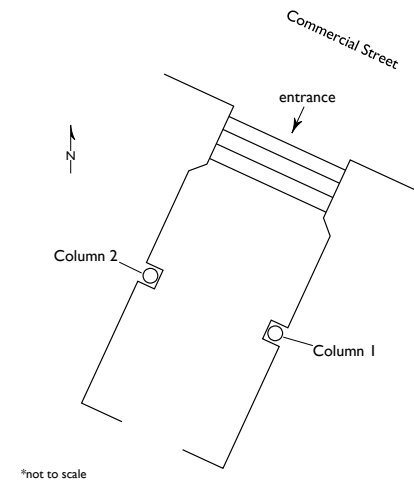


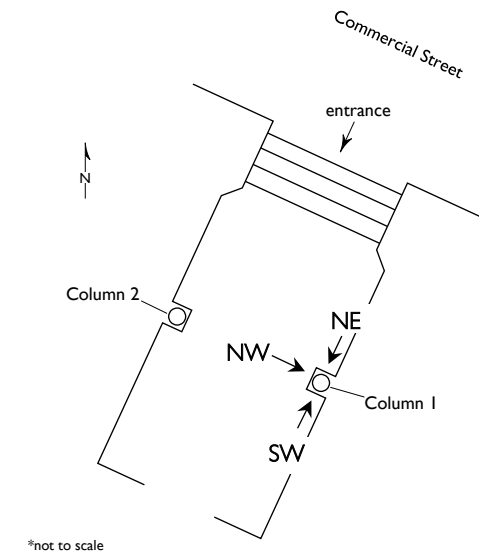
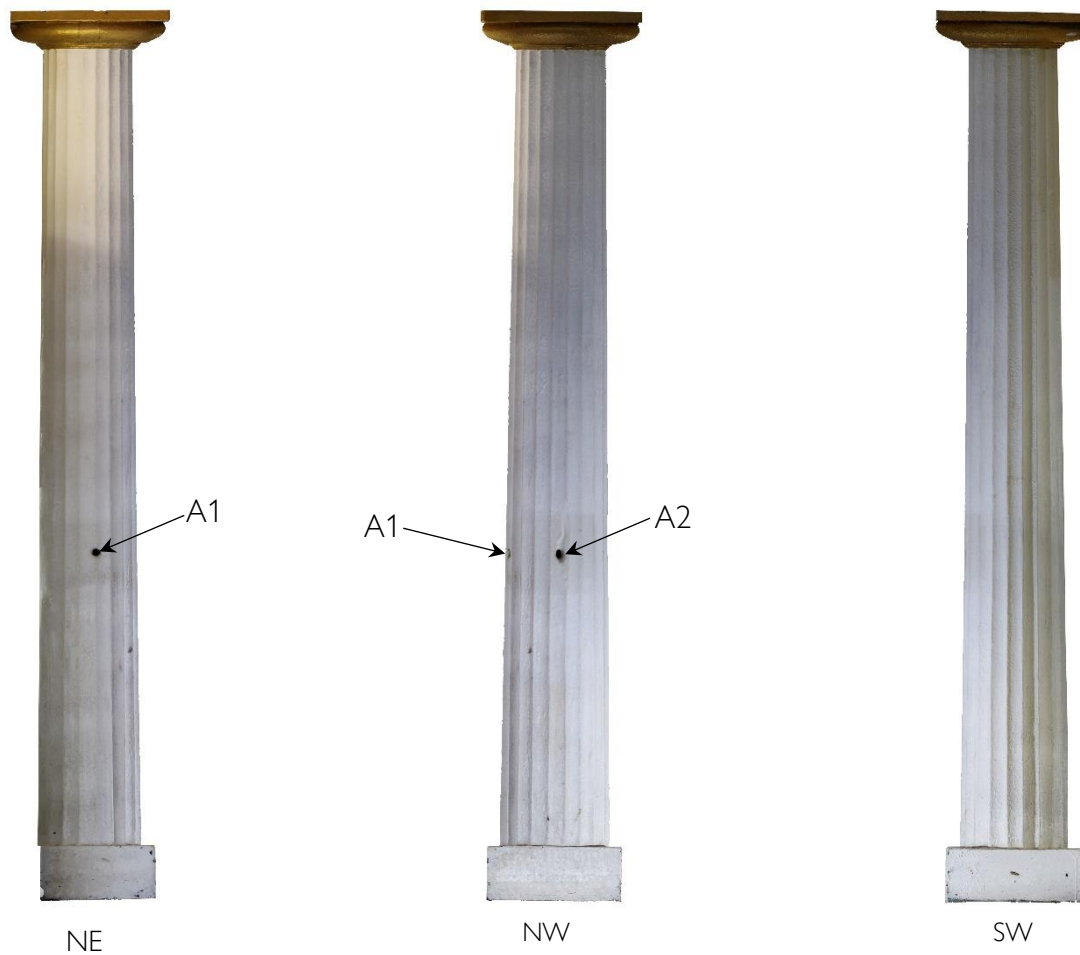
Fig. 1 – Columns viewed on entry: Column 1 (left) – Column 2 (right).



Fig. 2 – Columns viewed on exit – Column 1 (right) – Column 2 (left).

Column 1

Column 1 sits to the east side of the porch (left on entrance). There are two holes at roughly the same height and are presumed to be entrance and exit. A 3D model can be viewed here - <https://p3d.in/JN53Y>



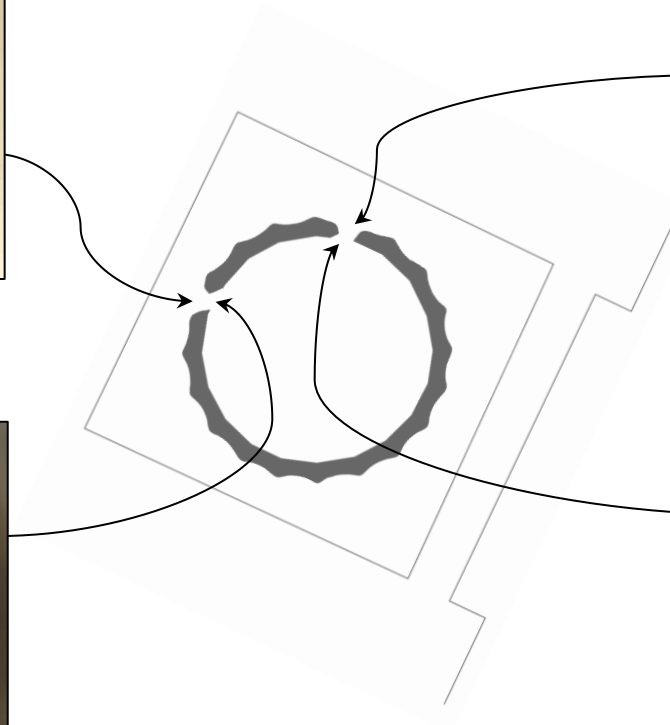
Column 1 – Hole A1-A2



A2



A1



Column 1 – Endoscope

Endoscope investigation revealed the holes to be highly finger-polished on their inner faces, and that paint has run in and around the holes, including leaving splatter on the internal faces.

On a timber former, a piece of cloth with golden trim was observed.

A small punch hole was also observed, but may be related to their fabrication.

A piece of amorphous material of a white colour was observed attached to the internal face of the column.

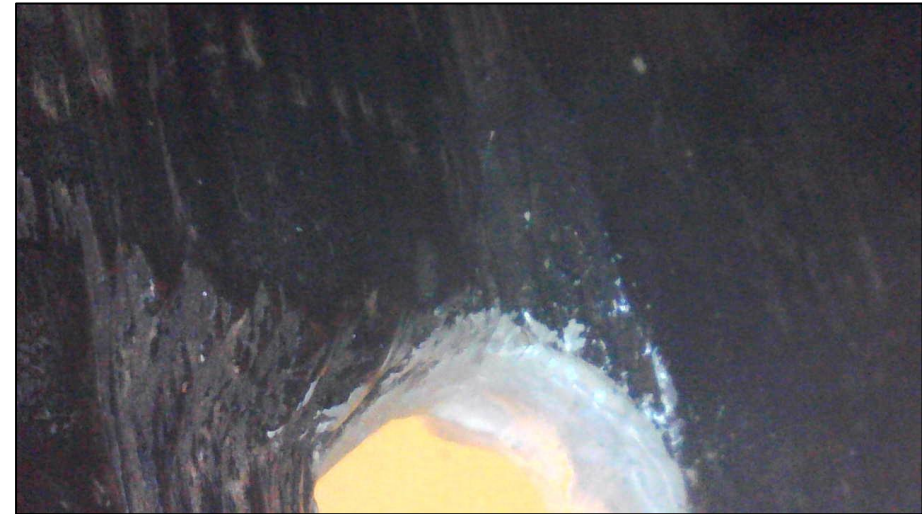


Fig. 3 – Finger polish and paint to hole A1.



Fig. 5 – Cloth with gold trim.



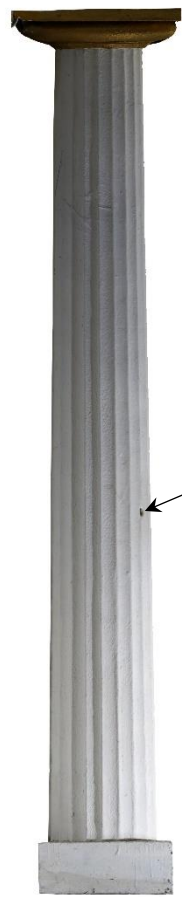
Fig. 4 – Punch hole.



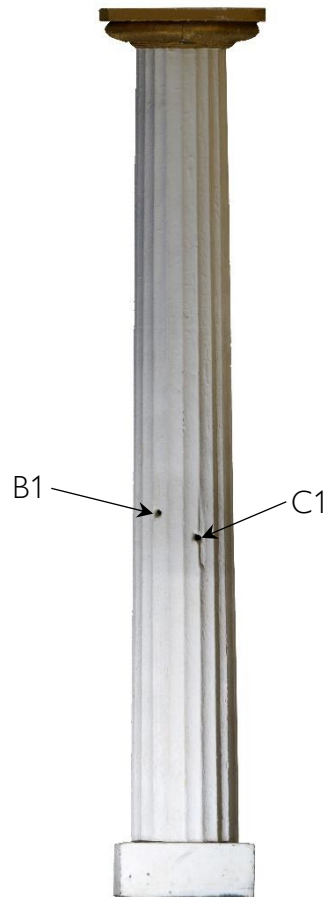
Fig. 6 – Amorphous white object.

Column 2

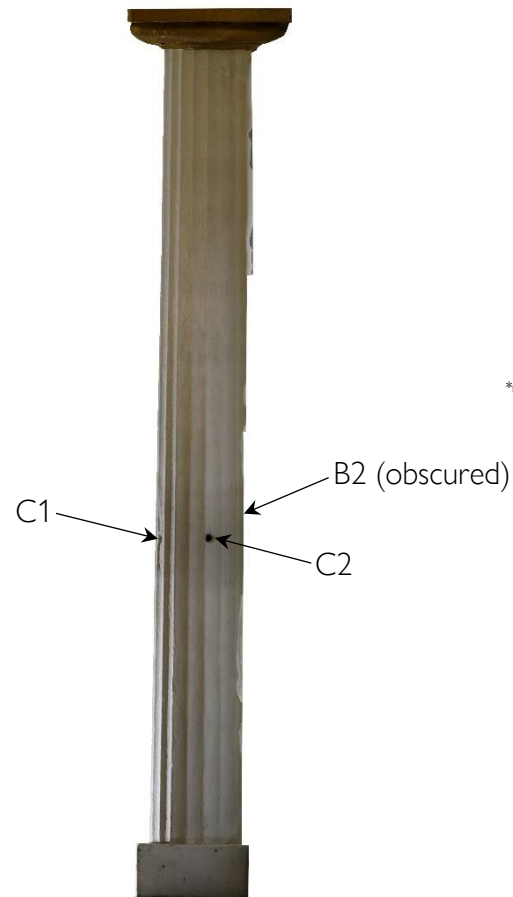
Column 2 sits to the west side of the porch (right on entrance). There are two sets of holes, each set at roughly the same height and are presumed to be entrance and exit. A 3D model can be viewed here - <https://p3d.in/CJWPI>



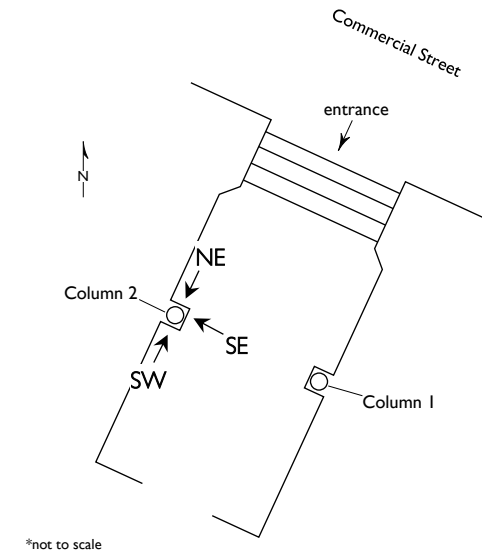
SW



SE



NE



Column 2 – Hole B1-B2



B2



B1



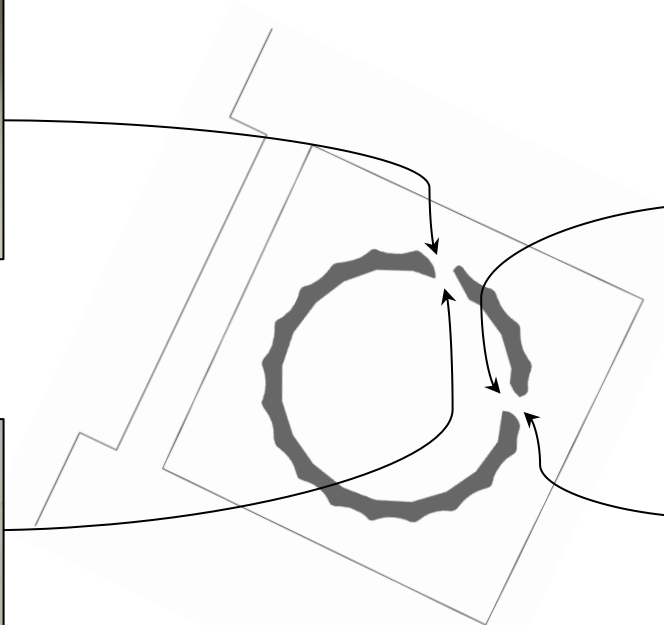
Column 2 – Hole C1-C2



C2



C1



Column 2 – Endoscope

Endoscope investigation revealed the holes to be highly finger-polished on their inner faces, and that paint has run in and around the holes, including leaving splatter on the internal faces.

A piece of amorphous material of a white colour was observed attached to the internal face of the column.



Fig. 7 – Finger polish and paint to hole C1.



Fig. 9 – Amorphous white material.

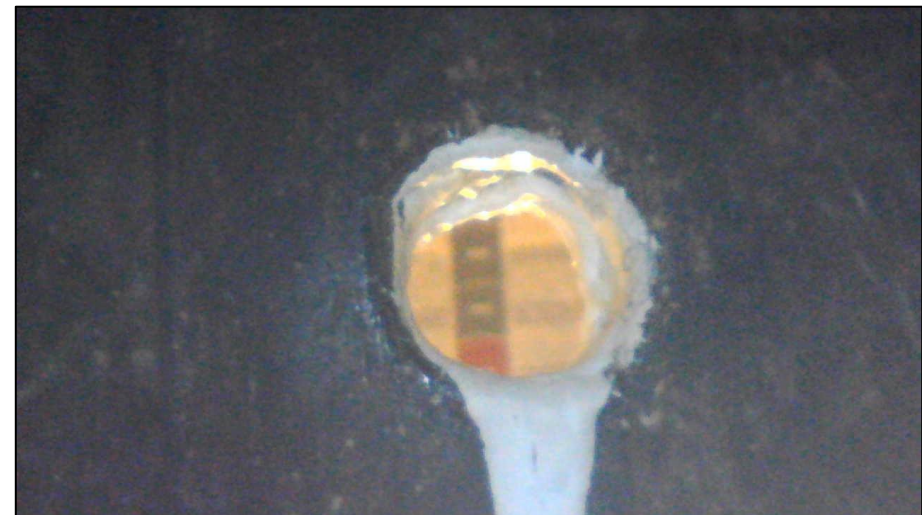


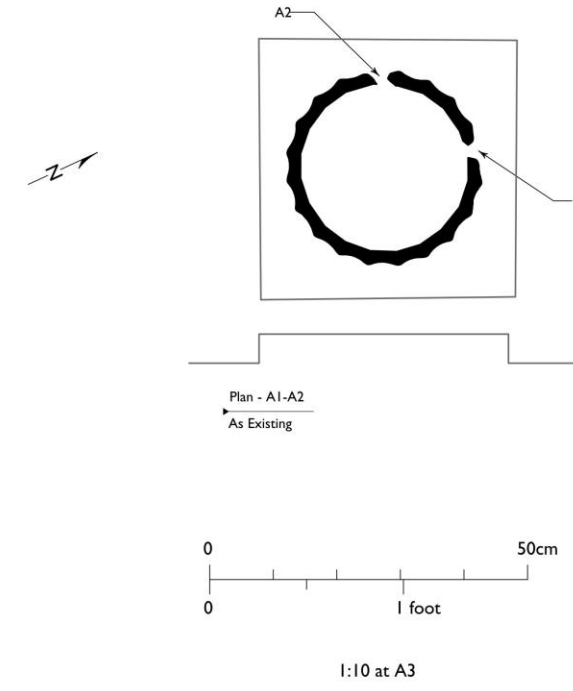
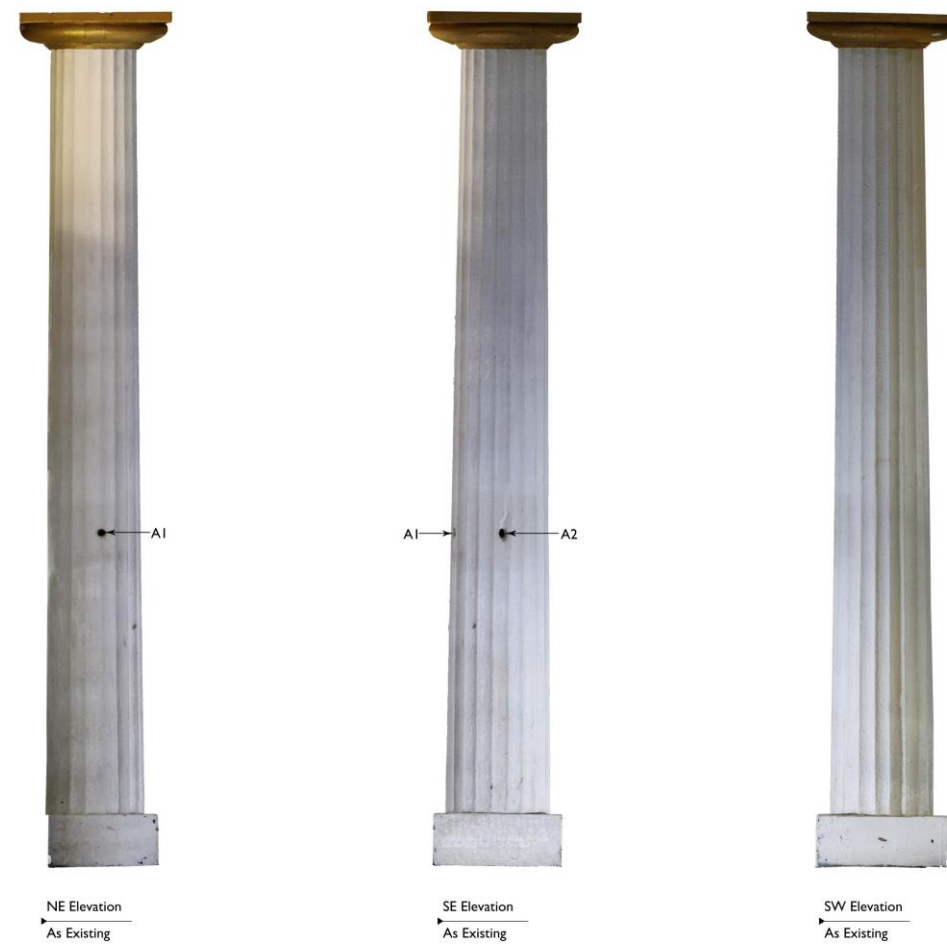
Fig. 8 – Finger polish and paint to hole B1..

Appendix I

Column 1 – Photogrammetric Elevations and Drawn Plans

Column 2 – Photogrammetric Elevations and Drawn Plans

Column I, Westgate Hotel

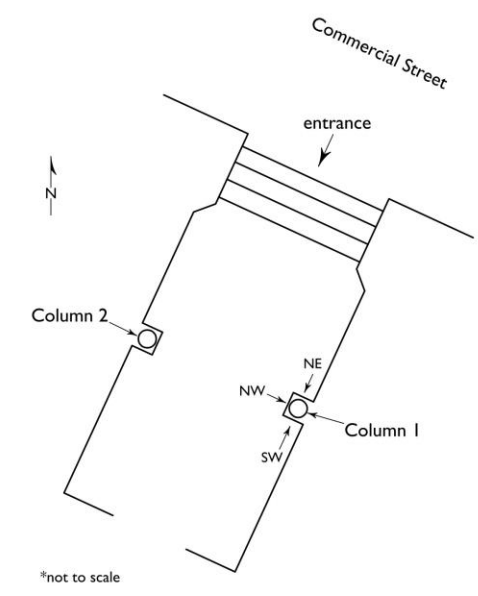
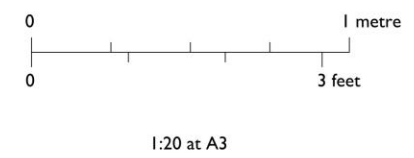


Project
Survey of the Westgate Hotel Columns, Newport

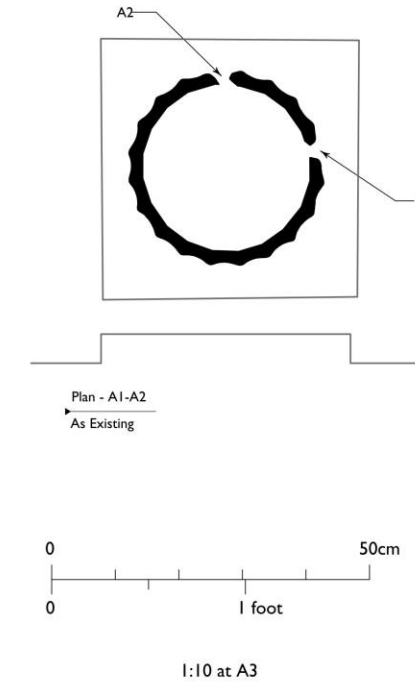
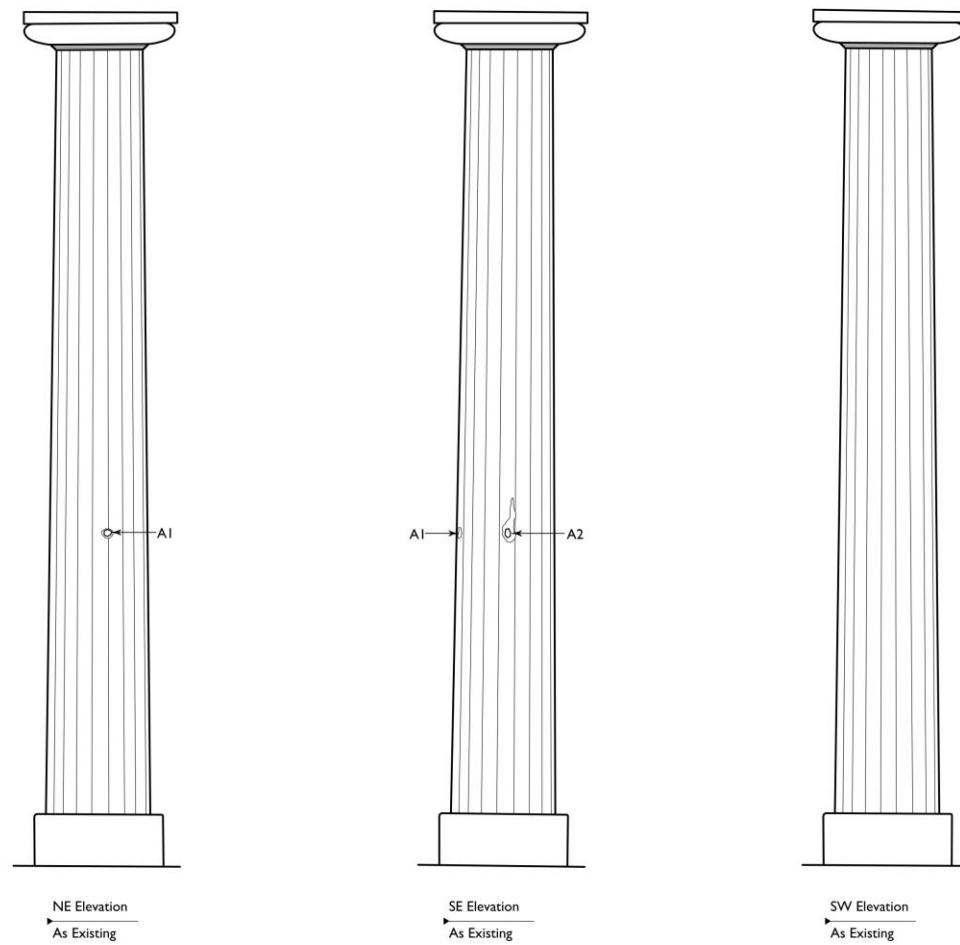
Drawing Title
Column I as Existing

Surveyor	Drawn	Scale
Ross Cook	Ross Cook	Varies

Drawing No.	Revision	Date
AD131-1	0	May 2022



Column I, Westgate Hotel

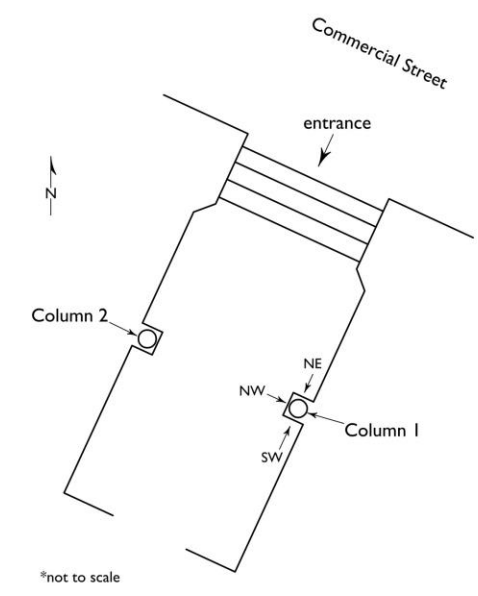
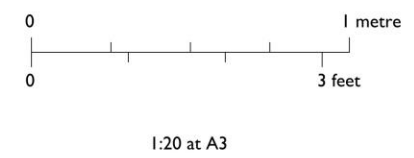


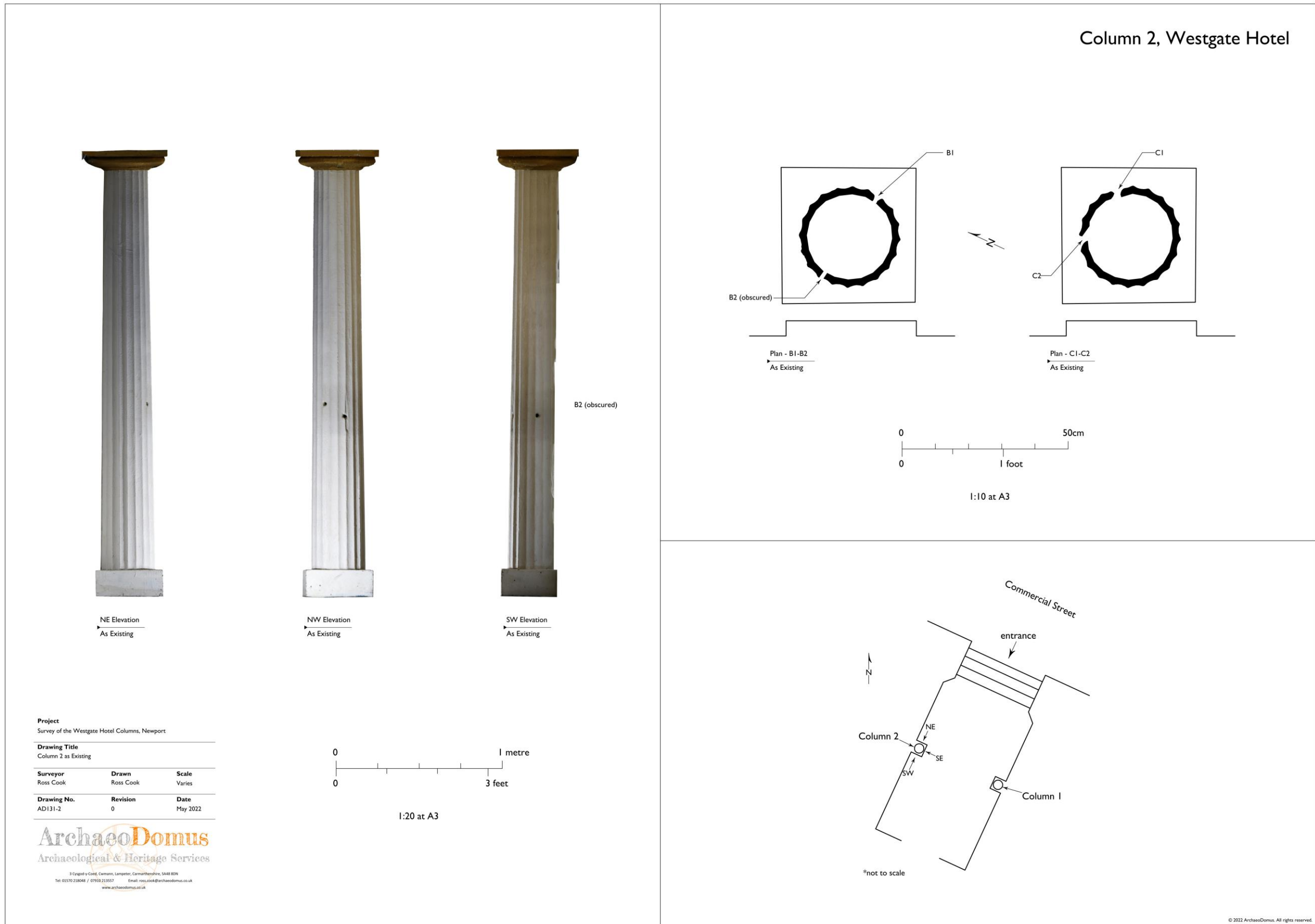
Project
Survey of the Westgate Hotel Columns, Newport

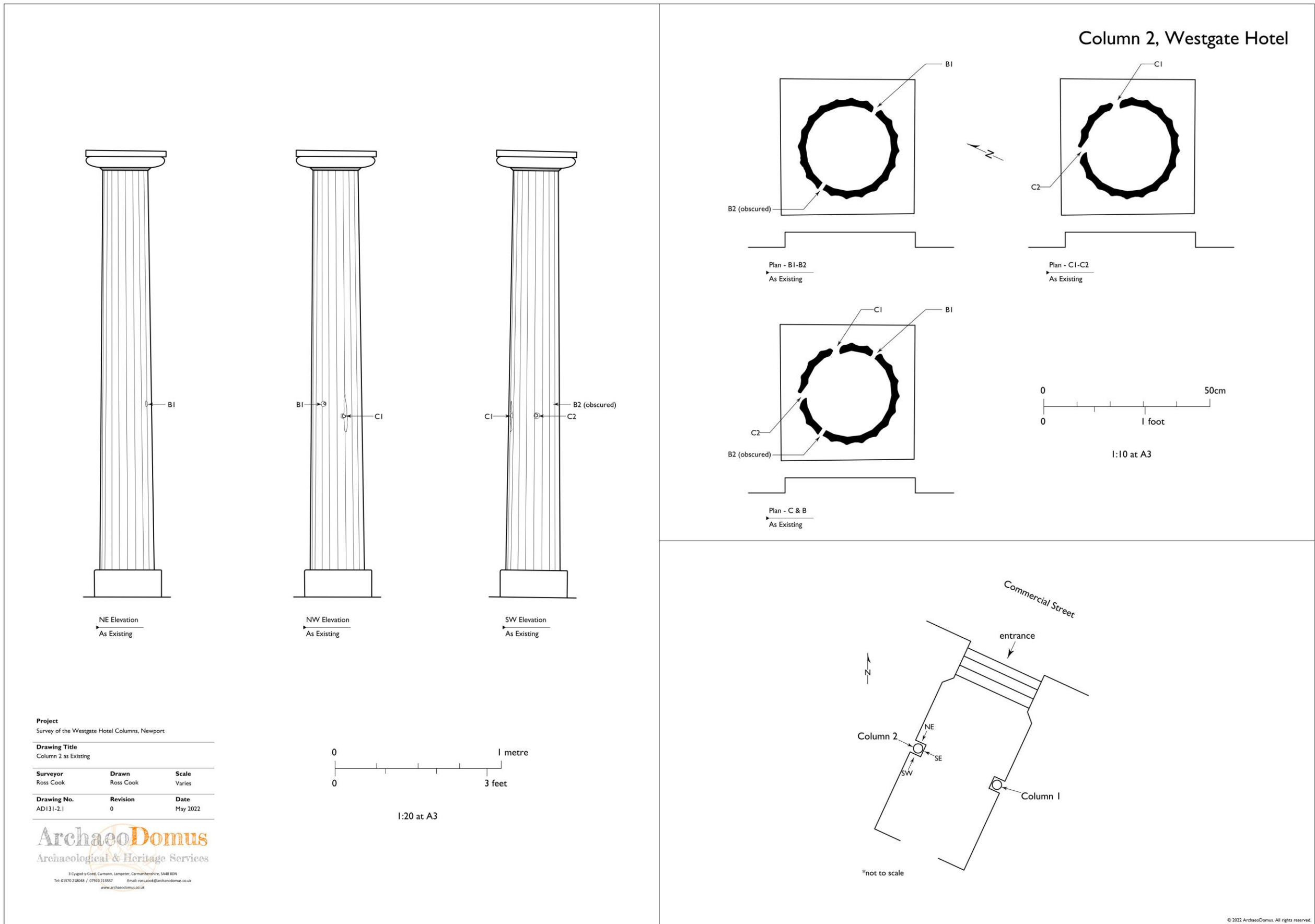
Drawing Title
Column I as Existing

Surveyor	Drawn	Scale
Ross Cook	Ross Cook	Varies

Drawing No.	Revision	Date
AD131-I.1	0	May 2022







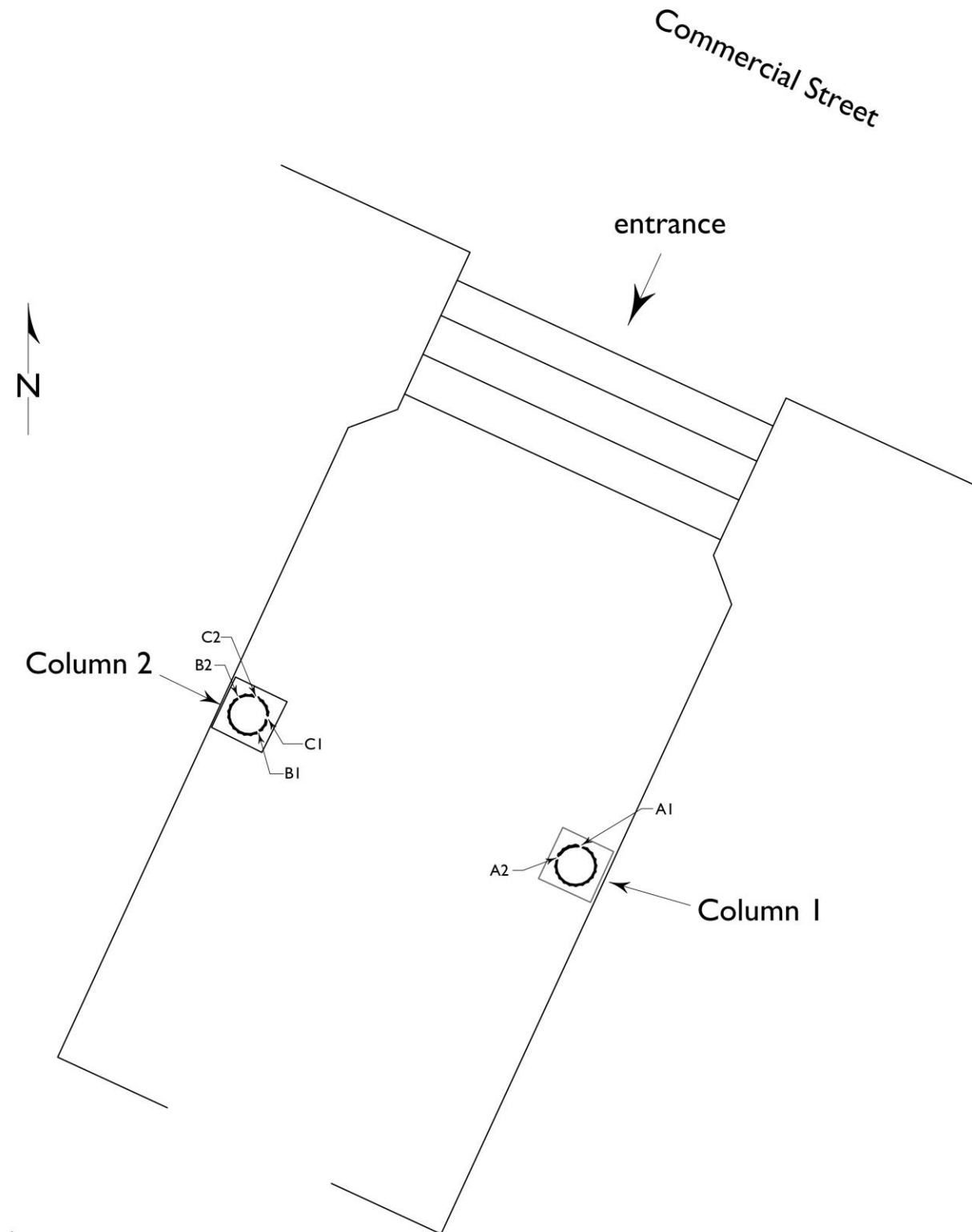
Project
Survey of the Westgate Hotel Columns, Newport

Drawing Title
Column 2 as Existing

Surveyor	Drawn	Scale
Ross Cook	Ross Cook	Varies

Drawing No.	Revision	Date
AD131-2.1	0	May 2022

Column 2, Westgate Hotel



Project
Survey of the Westgate Hotel Columns, Newport

Drawing Title
Plan as Existing - Not to Scale

Surveyor	Drawn	Scale
Ross Cook	Ross Cook	-

Drawing No.	Revision	Date
AD131-3	0	May 2022

*not to scale

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