



Type FW3/23 Pillbox, Wet Dock Knuckle, Port of Boston

Level 2 Historic Building Recording

October 2021

Mott MacDonald
22 Station Road
Cambridge CB1 2JD
United Kingdom

T +44 (0)1223 463500
mottmac.com

Type FW3/23 Pillbox, Wet Dock Knuckle, Port of Boston

Level 2 Historic Building Recording

October 2021

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	13/07/2021	M. Hopper MCIfA	K. Luker	J. Timothy	Draft for comment
b	04/11/2021	M. Hopper MCIfA			Addressed comments. Issue for stakeholder comments.

Document reference: | ENVIMAN001472-BMM-00-5WX-RP-U-0306048-S4-P02-C0600-EA4-LOD4 |

Information class: Standard

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

Executive summary	1
1 Introduction	2
1.1 Project background	2
1.2 Fieldwork dates and circumstances	2
1.3 Site description	3
1.4 Aims and objectives	3
2 Methodology	5
2.1 General	5
2.2 On site survey	5
2.3 Drawn record	5
2.4 Photographic record	5
2.5 Written record	5
3 Historical context	7
3.1 Port of Boston	7
3.2 Known Boston World War II defences	7
3.3 Pillbox development	8
3.4 The wet dock knuckle pillbox	8
3.5 The Port of Boston Pillboxes	12
4 Descriptive	14
4.1 Exterior	14
4.2 Interior	15
5 Statement of significance	18
6 Conclusion	19
7 References	20
Appendices	22
A. Measured drawings of pillbox	23
B. Photographic register	24

Tables

Table 3.1: Pillbox locations	13
Table 6.1: Register details	24
Table 6.2: Historic building recording photo register	24

Figures

Figure 1.1: Pillbox Location	3
Figure 3.1: Location plan of the Port of Boston pillboxes	13

Photos

Photo 3.1: Air photo of the Port of Boston knuckle (late 20th century)	9
Photo 3.2: Photo of the 'monument' showing commemorative plaque.	10
Photo 3.3: Photo of structure before removal of bricks and Port of Boston Signage (eastern end of structure)	11
Photo 3.4: 1952 Air Photograph of the Port of Boston, showing the wet dock knuckle pillbox	12
Photo 4.1: Western and southern elevation of the pillbox. Showing step around open chamber.	14
Photo 4.2: Southern elevation. Showing southern embrasure and step round open chamber.	14
Photo 4.3: Eastern elevation. Showing eastern embrasure.	15
Photo 4.4: Northern elevation. Shows step and northern embrasure.	15
Photo 4.5: Top of open chamber, with infill partially removed. Top of doorway for roofed chamber partly shown.	15
Photo 4.6: Overhead view of pillbox.	15
Photo 4.7: Fixed plate within southern embrasure.	16
Photo 4.8: Embrasure plate on floor of pillbox and remains of wooden/metal frames.	16
Photo 4.9: Taken through eastern embrasure. Internal door, northern embrasure and top of wood/metal frame.	17
Photo 4.10: Floor of pillbox showing water and soil egress.	17
Photo 4.11: Remains of wood/metal frame.	17
Photo 4.12: Taken through the northern embrasure. Showing the southern embrasure.	17

Maps

Map 3.1: 1961 Ordnance Survey Map	9
-----------------------------------	---

Executive summary

This document sets out the results of historic building recording, as undertaken by BAM Mott MacDonald Joint Venture ('BMMJV') on behalf of the Environment Agency (the client), in advance of the demolition of a World War II pillbox, located at the Wet Dock Knuckle at the Port of Boston, Lincolnshire.

The pillbox was discovered by chance during the removal of signage from a brick structure (known as the Monument) located on the Knuckle. This revealed a potential concrete pillbox, which had been clad in bricks at some point in the late 20th century. The pillbox follows a standard design with a roofed chamber which enabled firing positions to the north, east and west (covering the Wet Dock Entrance and the Haven) and an opened roof chamber which would have been used for a light anti-aircraft machine gun.

This level 2 historic building recording has been undertaken in accordance with "Understanding Historic Buildings: A guide to good recording practice" (Historic England 2016), and "Standard and guidance for the archaeological investigation and recording of standing buildings or structures" (ClfA 2019). This record comprises a descriptive record based primarily upon photographic survey undertaken by BMMJV.

A Level 2 recording and its specification, as set out in section 5 of the Historic England document (Historic England, 2016), is summarised here: "A higher level of the descriptive survey when further works are not envisaged. The interior and exterior will be inspected, and the written account will be accompanied by photographs and some drawing. The survey will enable a general statement of significance to be made".

A photographic survey of the exterior and where possible of the interior of the pillbox, has been undertaken. A measured drawing was produced of the pillbox. A surviving internal blast door was also identified during the survey. During the research undertaken for this document it was identified that a further six pillboxes (in addition to the two known pill boxes located further up the River Witham), were formerly located around the Port of Boston.

1 Introduction

1.1 Project background

This document provides a record of a World War II pillbox which was uncovered during works on the Knuckle of the Port of Boston Wet Dock for the Boston Barrier Project (The Project). The EA, in association with Lincolnshire County Council and Boston Borough Council are seeking to manage flood risk from the tidal River Witham in the town of Boston. The Project is required to improve the standard of protection from tidal flooding without affecting the existing fluvial flood protection provided upstream within the River Witham and South Forty Foot Drain (SFFD).

BMMJV have been appointed by the EA to design and build a tidal flood barrier which can be raised and lowered as required in order to provide improved flood protection for Boston. The barrier will be located 100m downstream of Black Sluice to the south of the town.

To enable the continued use of the Port of Boston following construction of The Project, works are being undertaken on the entrance to the Wet Dock. This includes the realignment of the knuckle at the entrance of the dock. During initial works (on the 30th June 2020), involving the relocation of the Port of Boston signage located on a late 20th century brick structure known as the Monument, some of the bricks were removed to reveal a concrete structure, including a possible embrasure (gun loophole). The concrete structure (pillbox) will require demolition to enable the works to the Knuckle to be undertaken. Due to the potential for the structure to be a World War II pillbox and following consultation with the archaeological advisor for the Borough of Boston (Heritage Lincolnshire) and Lincolnshire County Council (Lincolnshire Historic Places Team), it was agreed that a photographic and drawn record would be undertaken in advance of the demolition of the structure/pillbox.

1.2 Fieldwork dates and circumstances

Following agreement for the recording of the structure/pillbox it was identified that under the COVID-19 restrictions and site safety rules, it would not be possible for a BMMJV Heritage Specialist to attend site to undertake the survey of the structure/pillbox. The following instructions were therefore given to the onsite BMMJV team:

- Photograph all four sides and the roof
- Take photographs of any features, doors, slit openings, any visible damage etc.
- If possible and safe to do so take internal photographs.
- Measure the height and length of all sides.
- Measure the size of any doorways/slits etc (and the location of such features).
- Measure the thickness of the walls/features.
- Measure internal features (if safe and practicable to do).

Recording was undertaken following the removal of the brick around the structure on the 7th July 2020 and additional photographs were undertaken on the 14th July 2020.

The weather conditions were slightly wet/rainy during the recording.

- Location: Port of Boston, The Dock, Boston PE21 6BN
- NGR: TF 33413 43012
- Survey required: Level 2 Building Recording

Figure 1.1: Pillbox Location



Source: BMMJV

1.3 Site description

The pillbox was located on the Knuckle of the Wet Dock of the Port of Boston. It was centred at TF 33413 43012, south-east of the Wet Dock Lock. The pillbox forms part of the World War II defences of Boston and the Port of Boston.

1.4 Aims and objectives

The standards and guidance for the archaeological investigation and recording of standing buildings or structures¹, defines a standing building recording as *'a programme of work intended to establish the character, history, dating, form and archaeological development of a specified building, structure, or complex and its setting, including buried components'*. The purpose in the context of demolitions is intended *'to seek a better understanding, compile a lasting record, analyse the findings/record, and then disseminate the results'*.

The overall aim of the programme of building survey work is to create a comprehensive record of the pillbox before its demolition. This allows a lasting record of the building after its demolition. The pillbox will be recorded in accordance with the ClfA standards and guidance, and the Historic England guidance document *Understanding Historic Buildings: A guide to good recording practice*². The historic building survey will seek to achieve the following aims:

¹ ClfA (2019)

² Historic England (2016)

- to document the building in order to provide a lasting record of the structure;
- to confirm that the structure was a pillbox and determine its type;
- further our understanding of the building, its fabric, development and purpose; and
- identify historic alterations and the fabric associated with these. This includes the identification of key phases of development if readily apparent.

2 Methodology

2.1 General

The building recording comprised a Level 2 survey, as defined in Understanding Historic Buildings: A guide to good recording practice³. This provides a sufficient level of recording to both assess the character and use, and any changes thereof, of the building over its lifetime, including a photographic record of the building and its immediate setting. It also enabled the identification of any significant architecturally non-standardised features.

A Level 2 recording and its specification, as set out in section 5 of the Historic England document (Historic England, 2016), is summarised here: “A higher level of the descriptive survey when further works are not envisaged. The interior and exterior will be inspected, and the written account will be accompanied by photographs and some drawing. The survey will enable a general statement of significance to be made.”

2.2 On site survey

Due to site COVID-19 restrictions, a BMMJV Heritage Specialist was not able to undertake the onsite works. Investigation of the building was carried out onsite, following the removal of the late 20th century brick cladding. Recording was comprehensive on the external elements of the pillbox but limited internally due to safety restrictions.

2.3 Drawn record

For the purpose of this report a measured drawing will be used as produced by the BMMJV onsite team (See Appendix A). The supplied drawings have been checked for accuracy by the BMMJV Heritage Specialist.

2.4 Photographic record

The record includes photographs taken both externally and internally as required, using a digital SLR camera. The photographic record is sufficiently thorough and detailed to illustrate all significant phases, structures, important structural relationships, and individual items of interest.

A photographic register has been compiled, relating image number, site photograph number, direction of view, and other relevant information (Appendix B).

2.5 Written record

BMMJV is responsible for ensuring that the written record to be submitted to the archive corresponds to a Level 2 in the Historic England specifications (Historic England, 2016).

In addition, the written records comply with the standards and guidance for archaeological investigation of standing buildings or structures as stated by the Chartered Institute for Archaeologists (CIFA 2019).

The written account includes the following main components:

- the precise location of all buildings recorded using a National Grid reference;

³ Historic England (2016)

- a note on any statutory or non-statutory designations of the building;
- the date of the record; and
- a summary of the building's type or purpose, historically and at present, its materials and possible date(s), in so far as these are apparent from an external and internal inspection.

3 Historical context

3.1 Port of Boston

During the late eighteenth and early nineteenth century a comprehensive scheme of civil engineering works to reclaim the East West and Wildmore Fens was undertaken, around Boston. This included the improvement of the Maud Foster Drain, straightening of the Witham between Boston and Lincoln, and the construction of the Grand Sluice. These works helped to revive Boston's fortunes. However, it was difficult for large ships to navigate the Haven into Boston with ships often mooring at Clayhole and then having to discharge cargo into smaller boats, or lighters, to be taken to the quays in the town.

Driven by JC Simmonds and WT Simmonds, who were local oil and coke merchants, and the arrival in the town of the Great Northern Railway, proposals were put forward for a modern wet dock in the town. The Haven Act was passed in 1881 with the Dock Act in 1882. The docks were built between 1882 and 1884 on the site of the town fields. At the same time a rail link was taken across the navigation on a swing bridge to connect the port to the wider rail distribution network. The port initially had a varied trade with large bonded warehouses storing tobacco, wines and spirits, two large granaries and a large coal hoist. The dock itself became home to a new deep sea fishing fleet with many of the buildings on the dock adapted to fishing use.

Following the loss of the fleet to Fleetwood, Lancashire the dock buildings were adapted so that they could handle a range of cargoes rather than just fish. During the middle of the twentieth century the port became known as a timber port with wood from the Baltic being shipped in, predominantly for railway sleepers. During World War II the Port of Boston was also home to an RAF Marine Craft Unit⁴ and adjacent to the (north east) port, the former St John's Workhouse was used as a joint services Combined Operations Landing Craft Training Establishment known as HMS Arbella. Associated structures such as Nissan hut, surface shelters and water tanks survived around the former workhouse into the 1950s.⁵

3.2 Known Boston World War II defences

Boston's proximity to the coast (7km east of the dock), and its location as a deep-water dock, made Boston and the surrounding area an important defence area during World War II. Boston was therefore (early in World War II) included in the 'A' Sector of the Lincolnshire coastal defences,⁶ Defence Area 35 Freiston Shore. An infantry brigade was responsible for A Sector, which included three battalions, of which the 'Boston Battalion' was responsible for the central areas. Forward posts (defended localities) were established on the sea wall at Freiston Shore, and a system of defence in depth was organised around 'Bases' (nodal points) that included Boston and the major crossing points of the Witham and the surrounding drains.

The Freiston Shore defences (7km east of the dock) contained a significant number of World War II defence structures which were built during 1940 and early 1941. This included the Freiston Shore Battery⁷ which had two 6-inch gun emplacements and concentration of AA

⁴ RAF-Lincolnshire.info (accessed 05/05/2021) 1109 Marine Craft Unit Boston. <http://www.raf-lincolnshire.info/1109mcu/1109mcu.htm>

⁵ Britain from Above (accessed 05/05/2021) EAW046598 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046598>

⁶ Pillboxes, thrills and heartache (accessed 23/07/2020) From Freiston Shore Battery; Defence Area 35 Freiston Shore. <http://rexbex.blogspot.com/2013/06/from-freiston-shore-battery.html>

⁷ Freiston Parish Council (accessed 23/07/2020) Freiston Shore in the Second World War. <http://parishes.lincolnshire.gov.uk/Freiston/section.asp?docId=112703>

defences, which served to stop and inspect suspect merchant shipping before it was allowed to enter the Witham bound for Boston.⁸

Within Boston there are two known pillboxes (Group ref. UORN 6925) recorded on the Haven by the Defence of Britain database⁹:

- Type FW3/23 pillbox located off Pulvertoft Lane, on the right bank of the Haven. Defence of Britain Ref. S0006926. It is unknown if this pillbox is still present.
- Type FW3/23 pillbox located off South Terrace, left bank of the Haven, adjacent to the northern boundary of the Port of Boston. Defence of Britain Ref. S0005247. This is extant and in good condition.

Type FW3/23 pillboxes are rectangular in shape and comprise of two square chambers¹⁰. The front chamber is roofed and usually has three embrasures (gun loopholes), the rear chamber is unroofed and would have contained a light anti-aircraft machine gun. It is unusual for this type of pillbox to have an external doorway, with access being made using a ladder or fixed metal rungs.

3.3 Pillbox development

The Directorate of Fortification and Works known as FW3, was set up at the War Office during May 1940¹¹. The organisation provided specific pillbox designs which could be constructed rapidly across the country. Between June and July of 1940, the FW3 issued seven basic designs covering Types 22 to 28. However, the designs were often adapted in the field by the local construction companies under the direction of the local area commanders, but by and large kept the key characteristics of the original designs.

3.4 The Wet Dock Knuckle pillbox

There is no record of the pillbox within the Lincolnshire Historic Environment Record or the Defence of Britain database. A search of online sources has been undertaken but no documented record of the pillbox was identified. However, the 1961 Ordnance Survey map (scale 1:2500) does indicate the presence of a small structure in the area of the pillbox, which is shown on all subsequent maps. The structure is also present on the late 20th century Port of Boston air photograph.

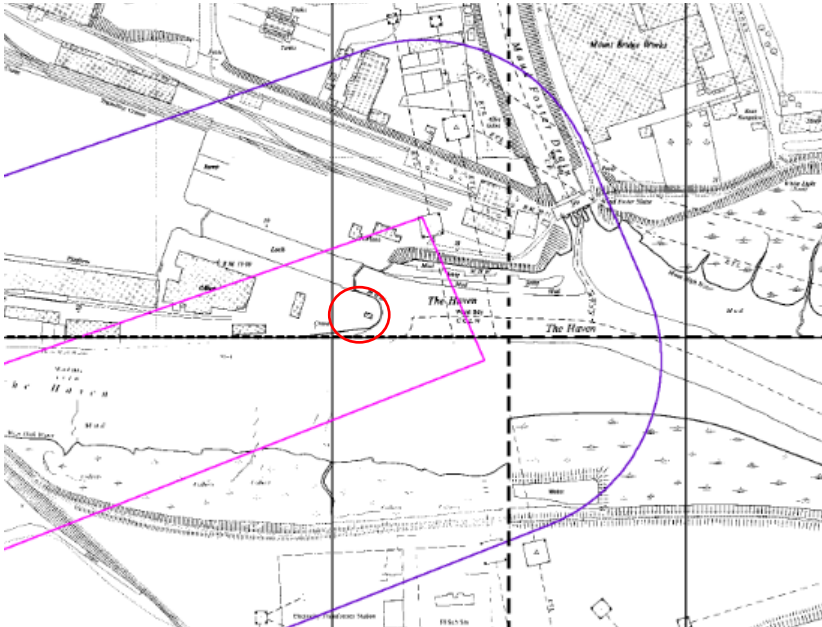
⁸ Historic England (2007) Rapid Coastal Zone Assessment Yorkshire and Lincolnshire; Gibraltar Point to Sutton Bridge. Project 3729 https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-868-1/dissemination/pdf/RCZA_vol_3_Gibraltar_Point_to_Norfolk/Report237RCZAvol3GibraltarPointtoNorfolk.pdf

⁹ Archaeology Data Service (Accessed 07/07/2020) Defence of Britain Archive <https://archaeologydataservice.ac.uk/archives/view/dob/>

¹⁰ Pillbox Study Group (accessed 14/07/2020) Type 23 Pillbox. <http://www.pillbox-study-group.org.uk/types-of-pillbox/type-23-pillbox/>

¹¹ Pillbox Study Group (accessed 14/07/2020) Types of Pillboxes <http://www.pillbox-study-group.org.uk/types-of-pillbox/>

Map 3.1: 1961 Ordnance Survey Map



Source: Ordnance Survey (Envirocheck)

Photo 3.1: Air photo of the Port of Boston Knuckle (late 20th century)



Source: Port of Boston

There is no pre-World War II map or documentary evidence of a structure of a similar shape within this part of the Knuckle. A larger structure was formerly present just to the west of the pill box before World War II. The brick structure (that encompassed the pill box) was known as the 'Monument' and most likely dates to an attempt to open up parts of the port frontage to public access during the early 1980s. It is very likely the structure was bricked up to make it safe, particularly as graffiti was found to be present on the western end of the pillbox. The brick

structure included basic bench seating around it and a commemorative plaque on its northern side. The plaque is dated 15th December 1984 and commentates the centenary of the opening of the Port of Boston. It is unlikely the 'monument' saw much public use and before demolition was used for signage by the Port of Boston, for boats entering the wet dock and for mooring on the left bank along the Haven side of the dock.

Photo 3.2: Photo of the 'monument' showing commemorative plaque.



Source: BMMJV 2015 (Record No. DSCN2284)

Photo 3.3: Photo of structure before removal of bricks and Port of Boston Signage (eastern end of structure)



Source: BMMJV 2020 (Record No.DSC_4835)

The main source of evidence for the presence of the Wet Dock structure and use as a World War II pillbox comes from the Britain from Above website¹². The website contains photographs from a 1952 air photograph sortie of the Fisons Ltd Fertilizer Works and environs, undertaken by Aerofilms Ltd (Photo 3.4). These photographs included the area of the Port of Boston and clearly show the pillbox on the Wet Dock Knuckle¹³.

¹² <https://www.britainfromabove.org.uk/>

¹³ Britain from Above (accessed 05/05/2021) EAW046592 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://britainfromabove.org.uk/en/image/EAW046592>

Photo 3.4: 1952 Air Photograph of the Port of Boston, showing the Wet Dock Knuckle pillbox



Source: Britain from Above EAW046592 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

3.5 The Port of Boston Pillboxes

In addition to the Wet Dock Knuckle pillbox and the two pillboxes located further up the River Witham, the Aerofilms Ltd air photographs of the Port of Boston identify a further six pillboxes, which were formerly located around the docks^{14, 15, 16, 17, 18, 19, 20, 21}. None of these pillboxes are recorded on the Defence of Britain Database. The 1966 Ordnance Survey map of the dock (1:1250) shows structures that would correspond to five of the pillboxes and also the Wet Dock Knuckle pillbox. The pillbox located closest to the former workhouse is shown as no longer present. It is likely that the remaining five pillboxes had been removed by the time of the public

¹⁴ Ibid

¹⁵ Britain from Above (accessed 05/05/2021) EAW046593 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046593>

¹⁶ Britain from Above (accessed 05/05/2021) EAW046594 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046594>

¹⁷ Britain from Above (accessed 05/05/2021) EAW046595 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046595>

¹⁸ Britain from Above (accessed 05/05/2021) EAW046596 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046596>

¹⁹ Britain from Above (accessed 05/05/2021) EAW046597 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046597>

²⁰ Britain from Above (accessed 05/05/2021) EAW046598 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046598>

²¹ Britain from Above (accessed 05/05/2021) EAW046599 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952. <https://www.britainfromabove.org.uk/en/image/EAW046599>

realm works that were undertaken in the 1980s, and they are not depicted on the Ordnance survey maps past the 1966 map.

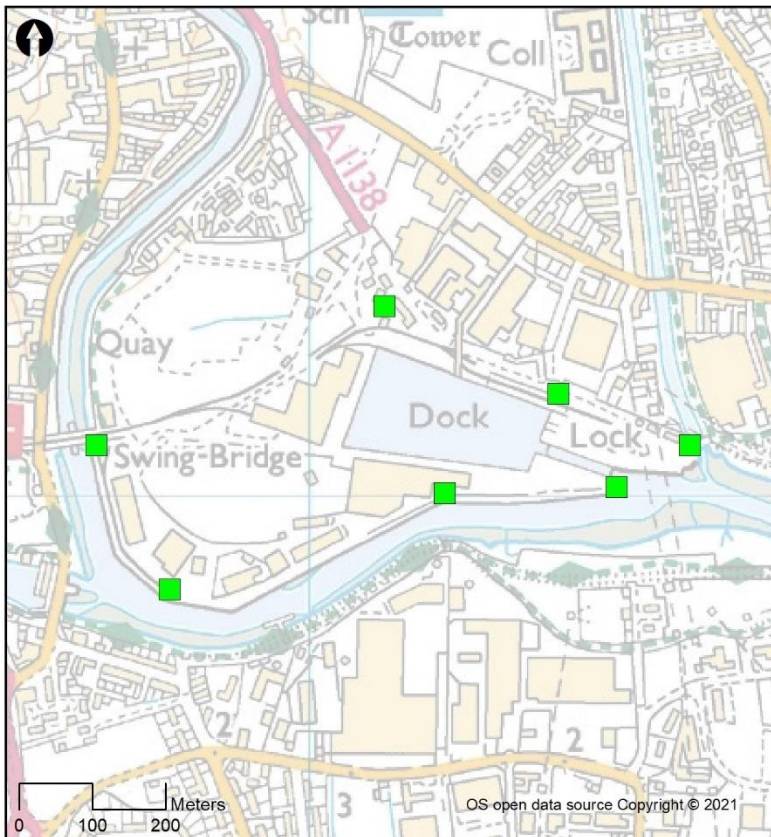
The six additional pillboxes were located at the following national grid references.

Table 3.1: Pillbox locations

Location Description	National Grid Reference
Located to the west of Maud Foster Sluice	TF 3551 4306
North east corner of the wet dock	TF 3334 4313
Adjacent to St John's Road entrance to the port	TF 3110 4325
Southern edge of the port opposite Riverside Trading Estate	TF 3318 4300
South East corner of the port opposite Black Sluice	TF 3271 4306
Adjacent to the swing bridge	TF 3271 4306

Figure 3.1 below shows the locations of the pillboxes that were formerly located within the Port of Boston, including the Wet Dock Knuckle pillbox.

Figure 3.1: Location plan of the Port of Boston pillboxes



Source: BMMJV 2021

4 Descriptive

4.1 Exterior

The pillbox comprised of a single storey, east west aligned rectangular concrete structure, comprising two square chambers. The western chamber was unroofed and the eastern chamber had a flat roof and three embrasures located on the northern, eastern and western sides, providing it with arcs of fire over the Haven and the Wet Dock Entrance. The pillbox was constructed out of concrete, with no indication that it was built in more than one phase. The unroofed chamber had been infilled with soil, which had been partly removed, revealing the top of a door opening between the chambers. There was no external doorway, with access probably made with the use of a concrete lip/step, which was located around the western, northern and southern sides of the unroofed chamber. A small amount of graffiti was visible on the western end of the pillbox. Apart from some minor cracking around the top of the roofed chamber (which may reflect a separate concrete pour for the roof), some staining from the removed post 1980s brick façade and a small amount of damage to the northern embrasure, the external element of the pillbox was in good repair.

Based on the layout of the pillbox and its similarity in layout to the known pillboxes located along the Haven, the pillbox has been identified as a Type FW3/23 pillbox. Measured drawings of the pillbox can be found in Appendix A.

Photo 4.1: Western and southern elevation of the pillbox. Showing step around open chamber.



Source: BMMJV 2020 (DSC_4874)

Photo 4.2: Southern elevation. Showing southern embrasure and step round open chamber.



Source: BMMJV 2020 (DSC_4875)

Photo 4.3: Eastern elevation. Showing eastern embrasure.



Source: BMMJV 2020 (DSC_4876)

Photo 4.4: Northern elevation. Showing step and northern embrasure.



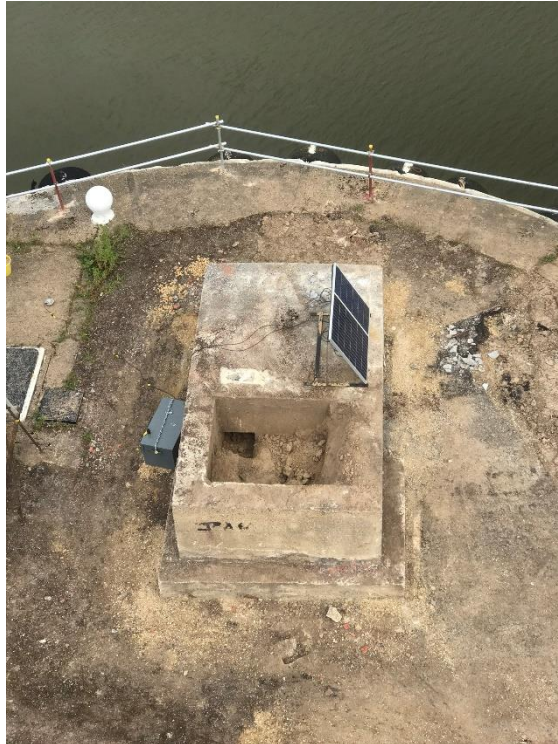
Source: BMMJV 2020 (IMG_5210)

Photo 4.5: Top of open chamber, with infill partially removed. Top of doorway to roofed chamber partly shown.



Source: BMMJV 2020 (IMG_5209)

Photo 4.6: Overhead view of pillbox.



Source: BMMJV 2020 (IMG_5246)

4.2 Interior

Due to the presence of the soil infill of the unroofed chamber, access was not made into the roofed chamber. However, photographs were taken of the internal features through the three embrasures. The three embrasures were flared inwards, which would have allowed a greater field of fire, whilst providing a greater protection to the occupant. All three embrasures had been

fitted in the past with an internal wooden frame and covered in a mesh and then blocked with a metal plate (possibly done as part of the bricking up process). These were removed during the removal of the bricks.

A surviving red metal (blast) door, hung from a rail which was secured to the wall (so that the door could be slid open), remains intact within the roofed chamber and covers the doorway out into the unroofed chamber. The door has perforations running along the edge furthest from the northern wall. This may indicate that the door may have been originally intended for another function and that it was incorporated into the pillbox, as the structure was built rapidly. Some water and soil ingress has occurred under the metal door from the infilled open roofed chamber. Also, within the roofed chamber are the remains of some wooden/metal frames. Their function was unclear, but are mostly likely the remains of furniture, rather than support structures for light machine guns.

Photo 4.7: Fixed plate within southern embrasure.



Source: BMMJV 2020 (IMG_5210)

Photo 4.8: Embrasure plate on floor of pillbox and remains of wooden/metal frames.



Source: BMMJV 2020 (IMG_5205)

Photo 4.9: Taken through eastern embrasure. Internal door, northern embrasure and top of wood/metal frame.



Source: BMMJV 2020 (DSC_4866)

Photo 4.10: Floor of pillbox showing water and soil ingress.



Source: BMMJV 2020 (DSC_4869)

Photo 4.11: Remains of wood/metal frame.



Source: BMMJV 2020 (DSC_4870)

Photo 4.12: Taken through the northern embrasure. Showing the southern embrasure.



Source: BMMJV 2020 (DSC_4871)

5 Statement of significance

The Type FW3/23 pillbox, located on the Wet Dock Knuckle at the Port of Boston, was most likely constructed between 1940 and 1941, and comprised of a single storey, two chamber concrete pillbox.

The significance of the building was considered to derive from its historic interest. The building was representative of the early World War II defences which were thrown up rapidly across the country, due to the perceived threat of invasion. The very nature of the need for such defences meant that these types of structures were kept very simple and without architectural pretensions. The presence of the pillbox indicates the significance of the Port of Boston and increases our understanding of the Boston/port defensive node and its part within the Defence Area 35 Freiston Shore coastal defences.

Although our understanding of the function of the type FW3/23 pillbox was not added greatly to by the discovery and recording of the Wet Dock Knuckle pillbox, the pillbox does contain a rare example of a surviving (sliding) blast door. This was unlikely to be a representative example of a door as the rapid nature of the construction of such pillboxes meant that local available materials would have been used to fit out the pillbox. This was supported by the presence of perforations along one edge of the door, suggesting it may originally have had another intended use.

The lip/step around the outside of the unroofed chamber does not seem to be present on surviving FW3/23 pillboxes, in the wider area. Due to the absence of an external door (not uncommon among this type of pillbox), it is possible this was put in to help egress.

The area around the pillbox has seen considerable commercial/industrial changes, associated with the activities of the port since World War II. However, much of the original character of the setting has been retained, with the continued commercial use of the port and the Haven. In addition, the Knuckle at the Wet Dock Entrance retains a prominent landmark location along the Haven for river traffic. This is supported by the reuse of the pillbox as a 'monument' to commemorate the centenary of the Port of Boston.

6 Conclusion

This document sets out the results of a historic building recording, as undertaken by BMMJV on behalf of Environment Agency (the client), in advance of the demolition of the World War II Type FW3/23 pillbox, which was discovered during works to the Knuckle of the Port of Boston Wet Dock. The pillbox follows a standard design with a roofed chamber which enabled firing positions to the north, east and west (covering the Wet Dock entrance and the Haven) and an opened roof chamber which would have been used for a light anti-aircraft machine gun.

This level 2 historic building recording has been undertaken in accordance with “Understanding Historic Buildings: A guide to good recording practice”²² and “Standard and guidance for the archaeological investigation and recording of standing buildings or structures”²³. This record comprises a descriptive record based primarily upon photographic survey undertaken by BMMJV.

Measured drawings have been produced which can be found in Appendix A.

This report is accompanied by a photographic archive of the pillbox and a photographic register can be found in Appendix B. The photographic archive and associated data will be deposited with the Archaeological Data Service, a Core Seal Trust approved repository.

²² Historic England (2016)

²³ CIfA (2019)

7 References

Archaeology Data Service (Accessed 07/07/2020) Defence of Britain Archive

<https://archaeologydataservice.ac.uk/archives/view/dob/>

RAF-Lincolnshire.info (accessed 05/05/2021) 1109 Marine Craft Unit Boston. <http://www.raf-lincolnshire.info/1109mcu/1109mcu.htm>

Britain from Above (accessed 05/05/2021) EAW046592 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://britainfromabove.org.uk/en/image/EAW046592>

Britain from Above (accessed 05/05/2021) EAW046593 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046593>

Britain from Above (accessed 05/05/2021) EAW046594 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046594>

Britain from Above (accessed 05/05/2021) EAW046595 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046595>

Britain from Above (accessed 05/05/2021) EAW046596 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046596>

Britain from Above (accessed 05/05/2021) EAW046597 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046597>

Britain from Above (accessed 05/05/2021) EAW046598 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046598>

Britain from Above (accessed 05/05/2021) EAW046599 ENGLAND (1952). The Fisons Ltd Fertilizer Works and environs, Boston, 1952.

<https://www.britainfromabove.org.uk/en/image/EAW046599>

Freiston Parish Council (accessed 23/07/2020) Freiston Shore in the Second World War.

<http://parishes.lincolnshire.gov.uk/Freiston/section.asp?docId=112703>

Historic England (2007) Rapid Coastal Zone Assessment Yorkshire and Lincolnshire; Gibraltar Point to Sutton Bridge. Project 3729

https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-868-1/dissemination/pdf/RCZA_vol_3_Gibraltar_Point_to_Norfolk/Report237RCZAvol3GibraltarPointtoNorfolk.pdf

Pillbox Study Group (accessed 14/07/2020) Type 23 Pillbox. <http://www.pillbox-study-group.org.uk/types-of-pillbox/type-23-pillbox/>

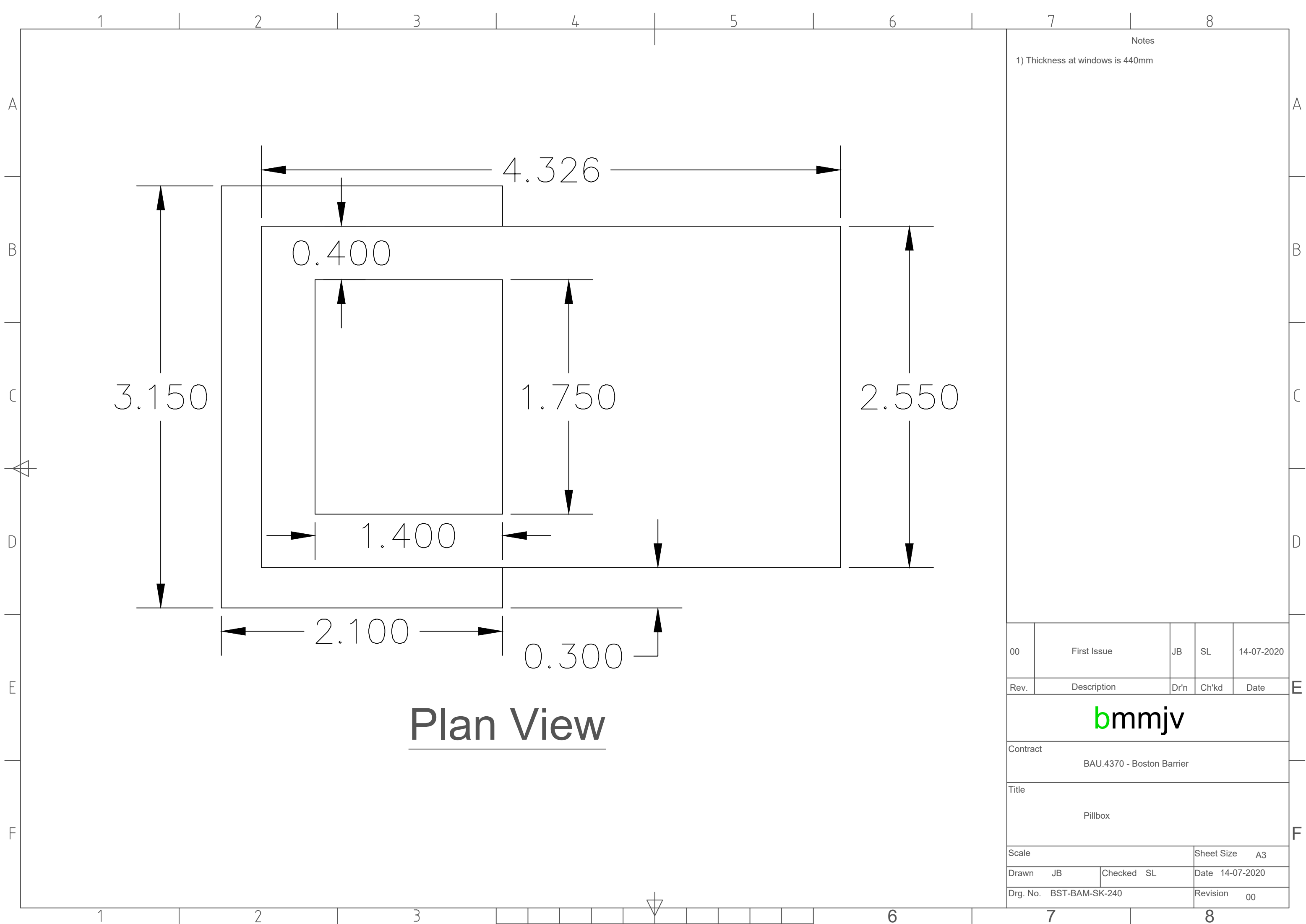
Pillbox Study Group (accessed 14/07/2020) Types of Pillboxes <http://www.pillbox-study-group.org.uk/types-of-pillbox/>

Pillboxes, thrills and heartache (accessed 23/07/2020) From Freisten Shore Battery; Defence Area 35 Freiston Shore. <http://rexbex.blogspot.com/2013/06/from-freisten-shore-battery.html>

Appendices

A.	Measured drawings of pillbox	23
B.	Photographic register	24

A. Measured drawings of pillbox

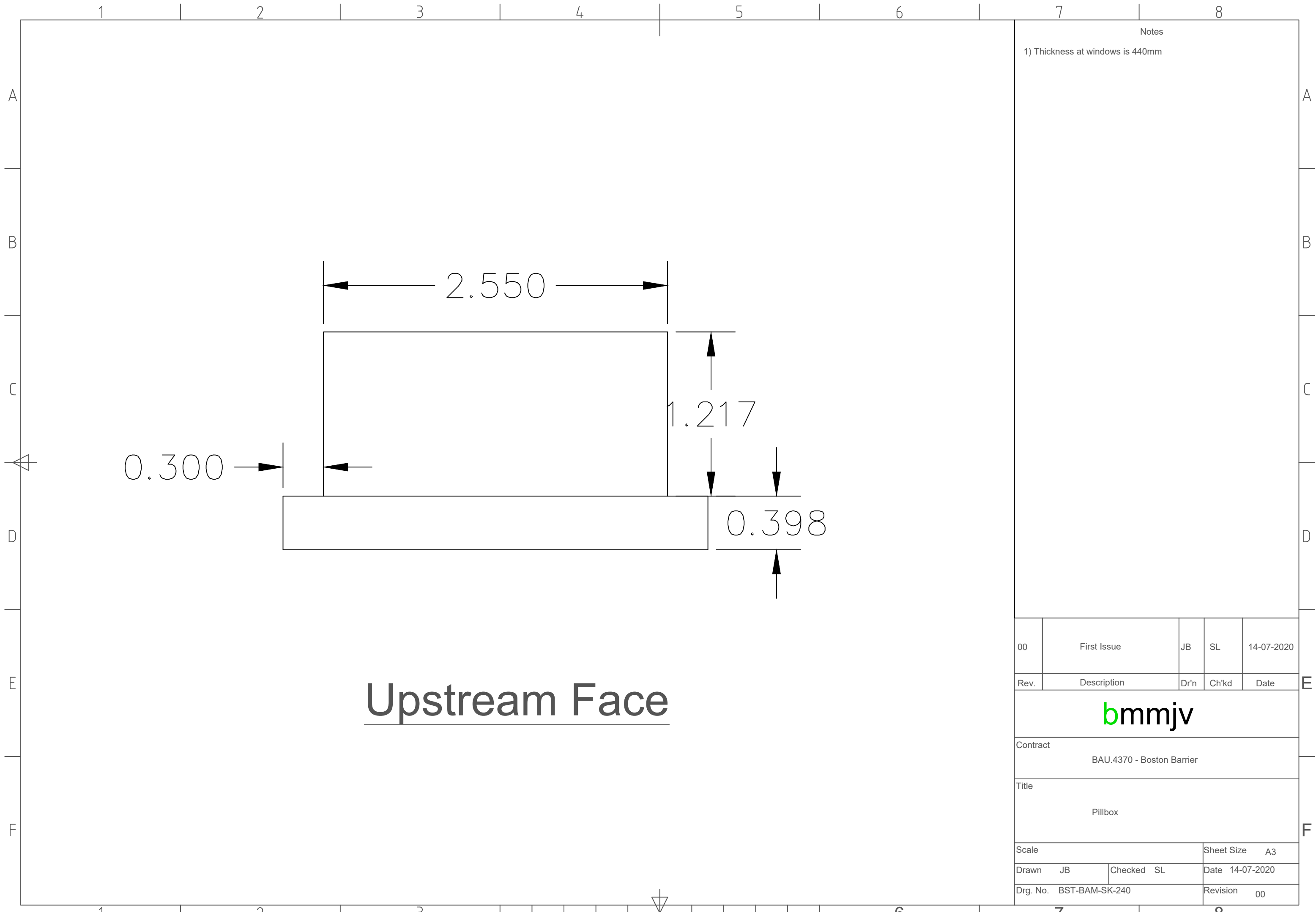


Plan View

Notes

1) Thickness at windows is 440mm

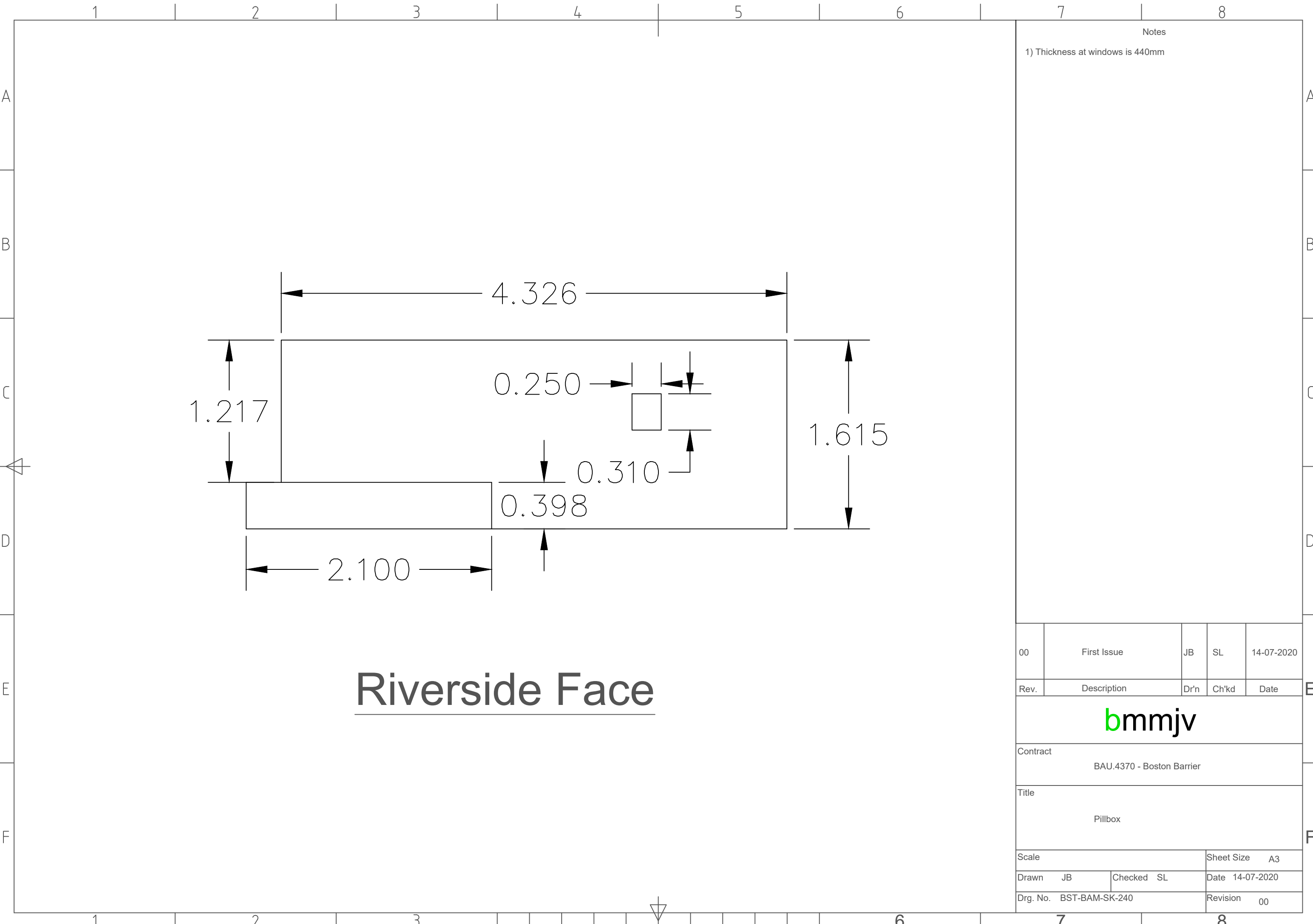
00	First Issue	JB	SL	14-07-2020
Rev.	Description	Dr'n	Ch'kd	Date
bmmjv				
Contract				
BAU.4370 - Boston Barrier				
Title				
Pillbox				
Scale			Sheet Size A3	
Drawn	JB	Checked	SL	Date 14-07-2020
Drg. No.	BST-BAM-SK-240			Revision 00



Notes

1) Thickness at windows is 440mm

00	First Issue	JB	SL	14-07-2020
Rev.	Description	Dr'n	Ch'kd	Date
bmmjv				
Contract		BAU.4370 - Boston Barrier		
Title		Pillbox		
Scale			Sheet Size A3	
Drawn	JB	Checked	SL	Date 14-07-2020
Drg. No.	BST-BAM-SK-240		Revision	00



Notes

1) Thickness at windows is 440mm

Riverside Face

00	First Issue	JB	SL	14-07-2020
Rev.	Description	Dr'n	Ch'kd	Date
bmmjv				
Contract				
BAU.4370 - Boston Barrier				
Title				
Pillbox				
Scale			Sheet Size A3	
Drawn	JB	Checked	SL	Date 14-07-2020
Drg. No.	BST-BAM-SK-240			Revision 00

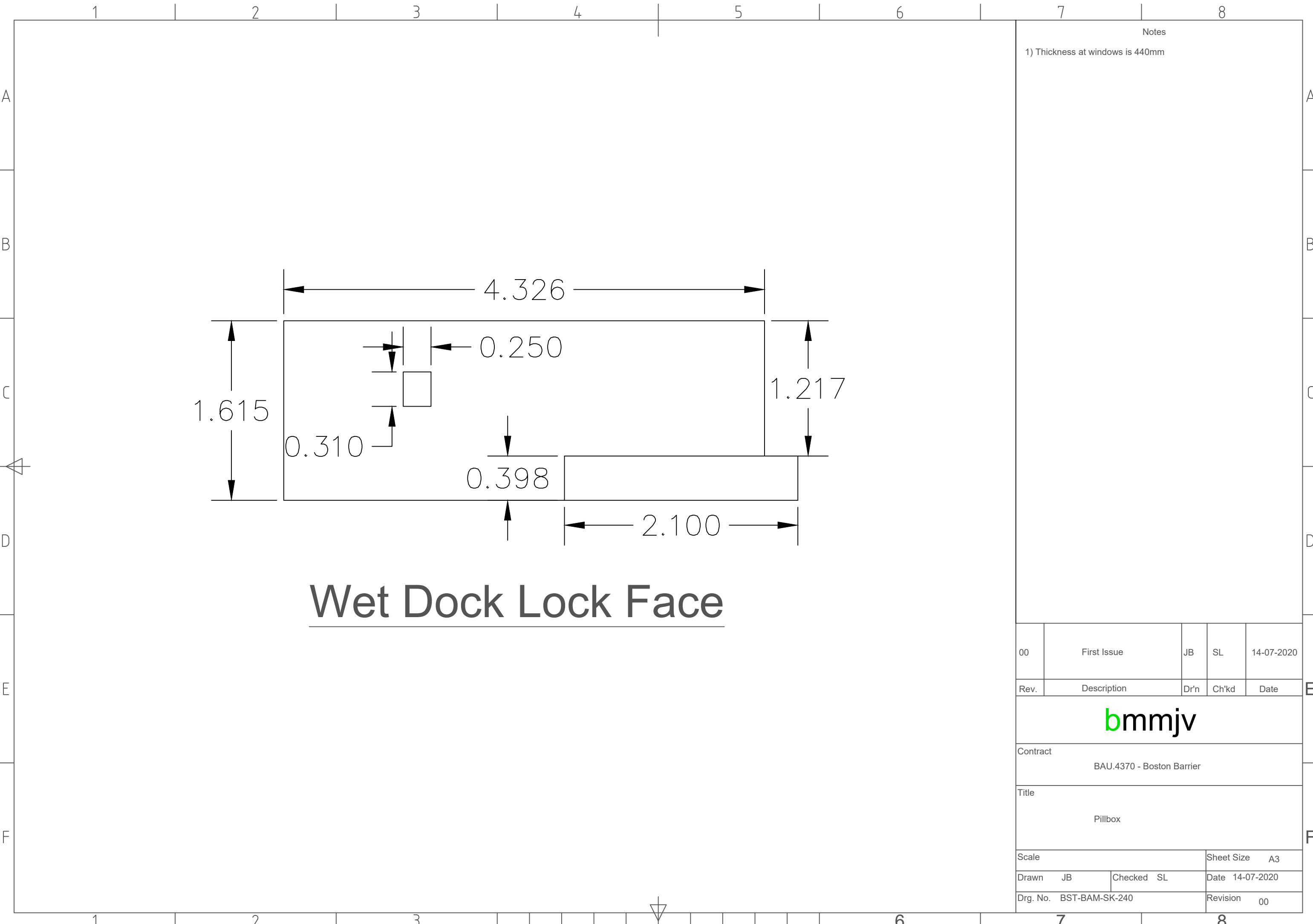


Downstream Face

Notes

1) Thickness at windows is 440mm

00	First Issue	JB	SL	14-07-2020
Rev.	Description	Dr'n	Ch'kd	Date
bmmjv				
Contract				
BAU.4370 - Boston Barrier				
Title				
Pillbox				
Scale			Sheet Size A3	
Drawn	JB	Checked	SL	Date 14-07-2020
Drg. No.	BST-BAM-SK-240			Revision 00



Wet Dock Lock Face

Notes

1) Thickness at windows is 440mm

00	First Issue	JB	SL	14-07-2020
Rev.	Description	Dr'n	Ch'kd	Date
bmmjv				
Contract BAU.4370 - Boston Barrier				
Title Pillbox				
Scale			Sheet Size A3	
Drawn	JB	Checked	SL	Date 14-07-2020
Drg. No.	BST-BAM-SK-240			Revision 00

B. Photographic register

Table 7.1: Register details

Project name	Boston Barrier
Address	Port of Boston, The Dock, Boston PE21 6BN
Type	NIKON 1J3 Digital Camera (DSC (jpeg) files) I Phone 7plus (IMG (jpeg) files)

Table 7.2: Historic building recording photo register

Record Number	Description	Direction from	Date	Taken by
DSC_4834	Exterior. View of northern side partial removal of brick facing	North-west	24/06/2020	BMMJV
DSC_4835	Exterior. View of eastern side of pill box. Shows brick façade and Port of Boston signage.	North-east	24/06/2020	BMMJV
93730	Exterior. Oblique view of eastern side, showing embrasure following removal of brick façade.	South-east	09/07/2020	BMMJV
DSC_4866	Interior. View east through embrasure of roofed chamber. Shows internal metal door (Sliding door on rollers.).	East	09/07/2020	BMMJV
DSC_4867	Interior. View south-east, through embrasure, shows western embrasure.	South east	09/07/2020	BMMJV
DSC_4868	Interior. View east, through embrasure. Shows metal door, southern embrasure and top of wooden/metal remains of furniture/structure of unknown function.	East	09/07/2020	BMMJV
DSC_4869	Interior. View through eastern embrasure of floor, showing metal door and of wooden/metal remains of furniture/structure of unknown function.	East	09/07/2020	BMMJV
DSC_4870	Interior. View through eastern embrasure of floor, showing metal door and of wooden/metal remains of furniture/structure of unknown function.	East	09/07/2020	BMMJV
DSC_4871	Interior. View south through northern embrasure of southern embrasure.	North	09/07/2020	BMMJV
DSC_4872	Exterior - Plan view of unroofed chamber. Top of door partially visible.	East	09/07/2020	BMMJV
DSC_4873	Exterior. Northern/western sides. Shows step around open roof chamber. Shows northern embrasure.	North-east	09/07/2020	BMMJV
DSC_4874	Exterior. Southern/western sides. Shows step around open roof chamber. Shows southern embrasure.	South-west	09/07/2020	BMMJV
DSC_4875	Exterior. Southern side. Shows step around open roof chamber. Shows southern embrasure.	South	09/07/2020	BMMJV
DSC_4876	Exterior. Eastern side. Shows eastern embrasure.	East	09/07/2020	BMMJV
IMG_5193	Exterior. Working shot, southern side.	South-east	09/07/2020	BMMJV
IMG_5194	Exterior. Oblique of top of pillbox, shows infilled open top chamber.	North-west	09/07/2020	BMMJV

Record Number	Description	Direction from	Date	Taken by
IMG_5196	Exterior. Shows partial clearance of open top chamber	N/A	09/07/2020	BMMJV
IMG_5197	Exterior. Same as IMG_5196	N/A	09/07/2020	BMMJV
IMG_5198	Exterior. Working shot, western side, Shows graffiti.	West	09/07/2020	BMMJV
IMG_5199	Exterior. North east corner. Shows northern and eastern embrasures.	North-east	09/07/2020	BMMJV
IMG_5200	Exterior. South east corner. Shows southern and eastern embrasures.	South-east	09/07/2020	BMMJV
IMG_5201	Exterior. Partial removal of infill of open roofed chamber	N/A	09/07/2020	BMMJV
IMG_5202	Exterior. Partial removal of infill of open roofed chamber	N/A	09/07/2020	BMMJV
IMG_5203	Interior. Floor and wooden/metal remains of furniture/structure of unknown function.	N/A	09/07/2020	BMMJV
IMG_5204	Interior. Viewed through northern embrasure, floor, door and wooden/metal remains of furniture/structure of unknown function, visible.	North	09/07/2020	BMMJV
IMG_5205	Interior. Viewed through northern embrasure, floor and wooden/metal remains of furniture/structure of unknown function.	North	09/07/2020	BMMJV
IMG_5206	Interior. Viewed through northern embrasure, floor and wooden/metal remains of furniture/structure of unknown function.	North	09/07/2020	BMMJV
IMG_5207	Interior. Viewed through northern embrasure, floor, door and wooden/metal remains of furniture/structure of unknown function, visible.	North	09/07/2020	BMMJV
IMG_5208	Exterior. Partial removal of infill of open roofed chamber	N/A	09/07/2020	BMMJV
IMG_5209	Exterior. Partial removal of infill of open roofed chamber	N/A	09/07/2020	BMMJV
IMG_5210	Exterior. Working shot. Northern elevation.	North	09/07/2020	BMMJV
IMG_5211	Exterior. Eastern elevation. Shows eastern embrasure.	East	09/07/2020	BMMJV
IMG_5212	Exterior. Southern elevation.	South	09/07/2020	BMMJV
IMG_5213	Exterior. Western elevation.	West	09/07/2020	BMMJV
IMG_5237	Exterior. Overhead shot.	N/A	13/07/2020	BMMJV
IMG_5239	Exterior. Overhead shot.	N/A	13/07/2020	BMMJV
IMG_5243	Exterior. Overhead shot.	N/A	13/07/2020	BMMJV
IMG_5245	Exterior. Overhead shot.	N/A	13/07/2020	BMMJV
IMG_5246	Exterior. Overhead shot.	N/A	13/07/2020	BMMJV
IMG_5247	MP4 Video of pillbox. External and internal	N/A	13/07/2020	BMMJV
DSCN2289	Exterior. Photo of northern facing side taken from northern side of the port lock. Showing the 'monument'.	North	30/09/2020	BMMJV
DSCN2291	Exterior. Photo of northern facing side taken from northern side of the port lock. Showing the 'monument'.	North	30/09/2020	BMMJV

C. OASIS Form

OASIS ID (UID)	mottmacd2-503040		
Project Name	Type FW3/23 Pillbox, Wet Dock Knuckle, Port of Boston		
Activity Type	Descriptive Buildings Record (Level 2)		
Project Identifier(s)	N/A		
Planning ID	N/A		
Reason for Investigation	Planning: Post determination		
Development Type	Flood alleviation scheme		
Organisation Responsible	BAM Mott MacDonald Joint Venture		
Project Dates	Start:	June 2020	End: July 2021
Location	NGR:	TF 33413 43012	
Administrative Areas	Country:	England	
	County:	Lincolnshire	
	District/Unitary Authority:	Boston	
	Parish:	Boston, unparished area	
Project Methodology	<p>The building recording comprised a Level 2 survey, as defined in Understanding Historic Buildings: A guide to good recording practice (2016).</p> <p>Due to safety concerns, it was not possible for a Heritage Specialist to attend the site. Photographs and measurements were therefore carried out by the on-site team following appropriate safety precautions.</p> <p>The recording comprised a survey, drawn record, photographic record and a written record. Measured drawings were produced by the BMMJV onsite team. The drawings were checked for accuracy by the Heritage Specialist.</p> <p>The record includes photographs taken both externally and internally as required, using a digital SLR camera. The photographic record is sufficiently thorough and detailed to illustrate all significant phases, structures, important structural relationships, and individual items of interest.</p> <p>A written record was produced comprising: the precise location of all buildings recorded; note on any statutory or non-statutory designations of the building; the date of the record; and a summary of the building's type or purpose, historically and at present, its materials and possible date(s), in so far as these are apparent from an external and internal inspection.</p>		
Project Results	<p>Exterior: The pillbox comprised of a single storey, east west aligned rectangular concrete structure, comprising two square chambers. The western chamber was unroofed and the eastern chamber had a flat roof and three embrasures located on the northern, eastern and western sides. The pillbox was constructed out of concrete, with no indication that it was built in more than one phase. The unroofed chamber had been infilled with soil, which had been partly removed, revealing the top of a door opening between the chambers. There was no external doorway, with access probably made with the use of a concrete lip/step, which was located around the western, northern and southern sides of the unroofed chamber. Pillbox was in generally good repair aside from minor cracking around the top of the roofed chamber, possibly reflecting a separate concrete pour for the roof, some staining from the removed post 1980s brick façade and a small amount of damage to the northern embrasure. Based on the layout of the pillbox and its similarity in layout to the known pillboxes located along the Haven, the pillbox has been identified as a Type FW3/23 pillbox.</p> <p>Interior: Three embrasures, all flared inwards, fitted with internal wooden frame, covered in a mesh and blocked with a metal plate. A surviving red metal blast door, hung from a rail secured to the wall, remains intact within the roofed chamber and covers the doorway out into the unroofed chamber. The door had perforations, possibly indicating that the door was intended for another function but was an emergency incorporation into the pillbox. Some water and soil egress has occurred from the infilled open roofed chamber. The remains of wooden/metal frames were observed within the roofed chamber. Their function was unclear, but probably the remains of furniture rather than machine gun fittings.</p> <p>The significance of the building was considered to derive from its historic interest relating to early World War II defences that were thrown up rapidly across the country due to the perceived threat of invasion. The pillbox contained a rare example of a surviving (sliding) blast door. However,</p>		

OASIS ID (UID)	mottmacd2-503040	
	this was unlikely to be a representative example, as the rapid construction of such pillboxes meant that local available materials would have been used to fit out the pillbox.	
Keywords	Pillbox (Type FW3/23)	
HER	Lincolnshire HER	
Archives	Is there an archive for this project?	Archive pending
	Archive Type:	Digital
	Archive:	N/A
Funder:	Environment Agency	

