

Porthcurno Telegraph Museum

Historic Building Photographic Recording



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Acknowledgements

The Historic Building Photographic Recording was commissioned by Porthcurno Telegraph Museum.

Jeanette Ratcliffe, Historic Environment Consultant, was involved in and responsible for overseeing all stages the recording work, and prepared this report. The photographs were taken by Eric Berry, Historic Building Consultant, who also provided on-site advice on the historic and architectural character of the buildings.

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Front cover illustration: Eastern House with the Tunnels behind

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Contents	Page
1. Summary	4
2. Background	5
3. Methodology	6
3.1 Photographic recording	6
3.2 Report preparation & dissemination	6
3.3 Archive creation & deposition	7
4. Results	7
4.1 Site and location	7
4.2 Surviving historic fabric and architectural character	8
4.2.1 Eastern House	8
4.2.2 Tunnels	10
4.2.3 Maintenance Block	10
Bibliography	10

Figures

- 1 Site location
- 2 Site plan (existing) showing historic phasing
- 3 Plan of Eastern House (existing) showing key building phases
- 4-11 Historic photographs of Eastern House
- 12-33 Selected photographs(colour digital July 2011 ; black & white film Feb 2012)
- 34-36 Architect plans of buildings as existing, marked up with Feb 2012 photo locations

Appendix:

Register of black & white photographs taken 12.02.2012, with CDs of scanned image

1 Summary

In February 2012, in advance of improvement works to Porthcurno Telegraph Museum an archive standard black and white photographic record was made of the grade 2 listed museum building, Eastern House, and an associated late 20th century Maintenance Block. A condition of planning and listed building consent, this recording work added to historical and architectural character information collected during a pre-planning historic building appraisal (Ratcliffe & Berry 2011).

Purpose-built to a standard telegraph company design, Eastern House is a two-storey, fire-proofed, white-painted, cast-concrete and metal structure, under a flat, asphalt roof. Originally constructed in 1904, as a result of the arrival of new submarine cables at Porthcurno, and the site's later development as a training school, it was extended four times during its history, and there is clear evidence for this in the standing building.

Externally, the building's appearance has remained generally unchanged since its final major extension in 1962, although all the windows are now Upvc and the two main museum doors are converted ground floor windows. It retains its polite architectural style and the following features.

- 2 original external doorways
- Large rectangular portrait windows; taller top-floor ones linked by a sill band or string course
- Incised render above 1904 & 1906 windows resembling a flat arch with voussoirs
- Concrete-moulded eaves cornice with a low, simple parapet above
- Black-painted base plinth, projecting in places
- 3 cable hatches with metal doors spaced along the foot of the 1904 wall
- Remains of a lightening conductor are also evident
- Cast iron down pipes with rectangular rain heads

In addition, early photographs show roof ventilators and 2 chimneys, which have been subsequently removed.

Inside, there is some evidence of internal spaces having been reconfigured, by the removal of some original concrete walling, blocking or conversion of original windows, and insertion of new doorways and partitions and false ceilings. However, original rooms survive, not least the large open space of the 1904 top-floor instrument room, which includes a:

- gloss-painted concrete ceiling supported by substantial metal girders carried on round profile iron pillars;
- single herringbone parquet flooring;
- skirting box around wall base;
- picture rail and decorative coving above.

Amongst the architectural features recorded in the simple interior of the rest of the building are:

- metal girder floors and ceilings supported on reinforced concrete pillars;
- cast iron radiators and 1950s pipework;
- an electrical switchboard;
- 2 staircases – including the 1904 original.

The 1970s/80s Maintenance Block was found to be a modern structure of no architectural merit.

2 Background

Porthcurno Telegraph Museum has been granted Heritage Lottery Funding to improve its visitor experience and archive and learning facilities. This involves alterations to the main museum building - the Edwardian, Grade 2 listed Eastern House - and the rebuilding of a redundant Maintenance Block.

Planning and Listed Building Consent have been granted subject to a number of conditions, including Condition 3, which states the following.

A) No demolition/development shall take place/commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:

- 1. The programme and methodology of site investigation and recording*
- 2. The programme for post investigation assessment*
- 3. Provision to be made for analysis of the site investigation and recording*
- 4. Provision to be made for publication and dissemination of the analysis and records of the site investigation*
- 5. Provision to be made for archive deposition of the analysis and records of the site investigation*
- 6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.*

B) No demolition/development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

Reason: To ensure that provision is made to record finds of archaeological interest in accordance with the requirements of PPS5 Archaeology and Planning.

A 'Brief for Historic Building Recording and Archaeological Investigation' was produced by Cornwall Council's Historic Environment Planning Advice Officer (HEPAO), 13th December 2011. It sets out the methodology and standards for the different phases of the recording, required to discharge Condition 3.

Two Written Schemes of Investigation (WSI) addressing the requirement for Historic Building Photographic Recording (1) and Archaeological Recording (2) were prepared by Jeanette Ratcliffe and approved by the HEPAO.

The WSIs take account of a Historic Building Appraisal carried out during July 2011 by Jeanette Ratcliffe and Eric Berry and submitted to the Planning Authority as part of the Design and Access Statement for the development.

The Appraisal report (Ratcliffe et al 2011) describes the historical context and development of the site and its historic landscape character, together with a statement of significance, a summary of the surviving historic fabric and the potential for buried archaeology. A colour digital photographic record of the elements affected

by the development was also made as part of that study.

The results of the Appraisal were supplemented by further information gathered by Eric Berry and Jeanette Ratcliffe during the Historic Building Photographic Recording carried out in February 2012, the results of which are presented in this report.

Together, the two studies address the Historic Building Recording requirement of the Planning Condition 3 and the HEPAO's Brief, and should, therefore be read in conjunction with each other.

3 Methodology

Cornwall Council's HEPAO's Brief identified the need for the site to be recorded to English Heritage 2-3 level, but did not specify the exact nature of historic building recording required. During telephone discussion with Phil Markham (16.12.11) it was confirmed that targeted photographic recording would be appropriate.

The historic building photographic recording involved three key stages of work.

- Photographic recording of Eastern House & the Maintenance Block
- Report preparation & dissemination
- Archive creation and deposition

3.1 Photographic recording

The photographic recording took place on 13th February 2012 and consisted of a:

- general record to archive standard of the interior and exterior of the Eastern House and the Maintenance Block;
- detailed record to archive standard of the internal and external elements of Eastern House where alteration is planned (most of these had already been recorded in July 2011 using digital colour photography).

This involved the following.

- Photographs taken using black and white 35mm or medium format film in order to produce archive quality contact prints and negatives
- Use of a photographic scale for both general and specific photographs
- A register of the photographs taken record, which details: feature, location and direction of shot
- Plotting photograph locations on the architect's plans

3.2 Report preparation & dissemination

This report contains the following.

- Concise non-technical summary of the photographic recording results
- Location map and site plan tied to the national grid (Fig 1)
- Site plan & plan of Eastern House showing key building phases (Figs 2-3)
- Selection of representative photographic images (Figs 4-30)
- Index of the black and white photographs taken 13.02.12 (Appendix)
- Plans of Eastern House & the Maintenance Block (as existing) showing photo/feature locations (Figs 34-36)

It adds to the earlier Historic Building Appraisal report by presenting additional information on the following.

- Materials, method of construction
- Fenestration
- Internal arrangements
- Fixtures and fittings

Dissemination

- Both reports have been submitted to Cornwall Council HEPAO and the Cornwall Record Office.
- Further digital copies have been supplied on CD-ROM in 'Adobe Acrobat' PDF format.
- The reports will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- Copies of the reports have been supplied to the client and their architect.

3.3 Archive creation & deposition

- An ordered and integrated site archive has been prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project.
- The archive, including copies of the written reports, has been deposited with the Cornwall Record Office.
- A summary of the contents of the archive has been supplied to the HEPAO.
- Copies of the reports have been supplied to the National Monuments Record (NMR) in Swindon.
- A project summary has been added to the OASIS (the English Heritage/ADS online index of archaeological investigations)

4 Results

4.1 Site and location (Figs 1 & 2)

The site consists of three buildings that form Porthcurno Telegraph Museum (together with a late 1920s Cable Hut located further to the south).

1. Eastern House, together with its outbuildings
2. The Tunnels
3. The Maintenance Block

They are surviving elements of a previously larger complex, originally the Eastern Telegraph Company and, latterly, Cable and Wireless training school.

Eastern House and the Tunnels are the present focus of the Museum's visitor experience, housing its exhibitions, collections, offices and archive stores. The northern part of the Maintenance Block has been used as an office and store for materials and equipment, while the southern end consists of a lean-to for vehicles.

The site is located on the eastern side of Porthcurno Valley, near its seaward end. Eastern House and the Tunnels are terraced and cut into its eastern slope, while the Maintenance Block sits on the eastern side of the valley floor.

4.2 Surviving historic fabric and architectural character

This section amalgamates evidence gathered during the 2011 Historic Building Appraisal with that collected during the Historic Building Photographic Recording. It includes information taken from the Listed Building schedules and 'The Site Survey' by Alan Renton (draft January 2011), including some of the historic photographs included in that report.

4.2.1 Eastern House

Construction & phasing

Eastern House was originally built in **1903-4**, for Eastern and Associated Telegraph Companies, on a terrace cut into the lower, west-facing slope of the Porthcurno valley.

Purpose built to a standard telegraph company design at a cost of £2,086, it is a fire-proofed, white-painted, cast-concrete and metal structure, with two storeys, covered by a flat, asphalt roof.

The original building had five bays and entry appears to have been through a doorway in its N end – no early photographs were found of that end of the building, but as there is no evidence of an original doorway in the other three elevations, that is where it must have been located (the doorway at the S end of the 1904 E elevation is a modern conversion of an original window).

There was a chimney in the S wall of the building and by the 1920s roof ventilators had been added.

On the top floor of the 1904 building was a large instrument room, workshop, experimental room, batteries and artificial lines. Whilst on the ground floor, as well as offices, there was a practice room, abstract room and a slip room.

As a result of the arrival of new submarine cables at Porthcurno, and the site's later development as a training school, Eastern House was extended four times during its history (Figure 3).

- **1906:** one-bay extension to the N (building now entered through doorway in back of this extension)
- **1950:** further one-bay extension to the N
- **1954:** two-bay extension to the S (initially with only 2 front windows, with a 3rd added later; chimney in S wall)
- **1962:** further two-bay extension to S (doorway in E, back, elevation)

In addition, in 1952-4, a row of outbuildings were constructed at the rear to house a stand-by, diesel-powered generator and fuel store (to provide electricity if the mains supply failed). Later (1962), a boiler room with a distinctive tall chimney was added to the south. *These outbuildings will be unaffected by the Museum improvements.*

A series of historic photographs (Figures 4-11) document this phased development, which is also evident in the standing structure (Figures 12- 19).

Externally, the building's appearance has remained generally unchanged since its final major extension in 1962, although all its windows have been replaced with

modern Upvc frames as part of its recent use as a museum. The wooden originals were all four-paned sash windows, except for those in the S elevation of the 1962 extension which appear to have been casement, with a fixed central pane.

Inside, original walling, flooring and features survive, and there is also evidence of reorganisation, with internal spaces having been reconfigured through the removal of walling and insertion of partitions and false ceilings (Figures 20-30).

Exterior

The **west (front) elevation** includes clear evidence of the five major building phases.

The original, five-bay 1904 building is in a polite architectural style and has large rectangular portrait windows, with those on the top floor being tallest and linked to each other by a sill band. The render above the 1904 (and 1906, but not later) windows has been incised to resemble a flat arch with voussoirs.

The eaves cornice is decorated (a concrete-moulded entablature of architrave, frieze and cornice) and above this is a low, simple parapet. There are cast iron down pipes with rectangular rain heads. There is a projecting, black-painted plinth at the base of the 1904 wall (and of the 1954 and 1962 walling, but the 1906 and 1950 wall base has just a flush, painted-on plinth).

The front elevations of the later extensions are set c10cm back from that of the original building. The two northern extensions (1906 and 1950, one-bay each) are slightly lower than the original, have similar window openings and a string course rather than a sill band. A vertical break in the render marks the transition from the 1906 to the 1950 phase. A raised square patch may be a blocked ventilator.

The 1952 two-bay extension attached to the south end of the original building is the same height as the 1904 build, has both a sill band and separate sills and only one window on the ground floor.

The southernmost, and most recent (1962), extension is similar in height to the north (1906) one, is of two-bays, has smaller windows - the lower ones with security bars - and a string course.

Spaced along the foot of the (1904) wall are three cable hatches with metal doors, marking the locations where the submarine cables originally entered the telegraph station. Remains of a lightening conductor are also evident.

The **south (side), three-bay elevation** has large rectangular landscape windows, with those on the upper floor being taller. The ground floor windows are all fitted with security bars. There is a paved plinth projecting out from the base of the wall.

The **east (back) elevation** is similar in character to the west (front) one, apart from having two doorways defined by simple door cases. The northern one appears to be a (1906) original; the southern is the result of a 1962 window being subsequently converted into a doorway (and smaller window).

Standing adjacent to and parallel to the back of the building is a **single storey service range** with a square profile chimney for the central heating system. These outbuildings appear to have undergone little change since being erected in the 1950s.

The **north (side) elevation** is architecturally basic, consisting of a plain wall with string course and a pair of (modern) glass doors together with sliding timber security. The faint outline of two blocked first floor windows are visible in the render; the two ground floor windows having been replaced by the modern doors.

Interior

The top floor of the original (1904) building consists of a large open space with a high (concrete, gloss-painted) ceiling supported by substantial metal girders carried on round profile iron pillars. The floor is of single herringbone parquet and around the base of the wall is a skirting box, with picture rail and decorative coving above.

The remainder of the interior is rather simple, with few architectural features of note. In the extensions the metal girder floors and ceiling are supported on reinforced concrete pillars. Cast iron radiators and 1950s pipework survives in some rooms, and an electrical switchboard. Two staircases provide access to the first floor – one the 1904 original; the other (with a lift) in the 1906 extension.

Some original concrete walling has been removed – at the junction of the 1954 and 1962 extensions, and part of the north wall of the 1906 extension. A number of original windows (now inside the building) have been blocked or converted into doorways, and a few new doorways have been punched through originally external concrete walls. Parts of the building have been refurbished with the insertion of partitions and false ceilings.

4.2.2 Tunnels

Lined with concrete block walling, with a timber-planked ceiling, the Tunnels have undergone little change since their original construction. Externally, in particular, they retain their utilitarian, military appearance, with (despite its camouflage paint) the concrete façade standing out starkly against the green, vegetated backdrop of the valley side (Figure 12). *NB: the Museum improvements do not involve any alterations to the tunnels.*

4.2.3 Maintenance Block

Built in the 1970s/80s, on a paved concrete plinth, with steps leading up to its main door, the Maintenance Block (Figures 31-33) is of rendered concrete block construction. It retains evidence for two phases of build – a larger, northern part, with painted soft wood windows and doors, timber rafters and an asphalt roof, and a southern lean-to with corrugated aluminium doors on steel frames and corrugated asbestos over. Internally, the main block has a series of small rooms arranged along a central corridor, divided by partition walls, while the lean-to has 2-3 rooms separated by un-rendered concrete-block walling.

Bibliography

DCMS 2008. Listed Building Schedules 505332-4

Ratcliffe, J, & Berry, E, 2011. *Porthcurno Telegraph Museum Historic Building Appraisal* (report for inclusion in Planning Design & Access Statement)

Renton, A, Jan 2011. *The Site Survey (draft)*. Porthcurno Telegraph Museum report.

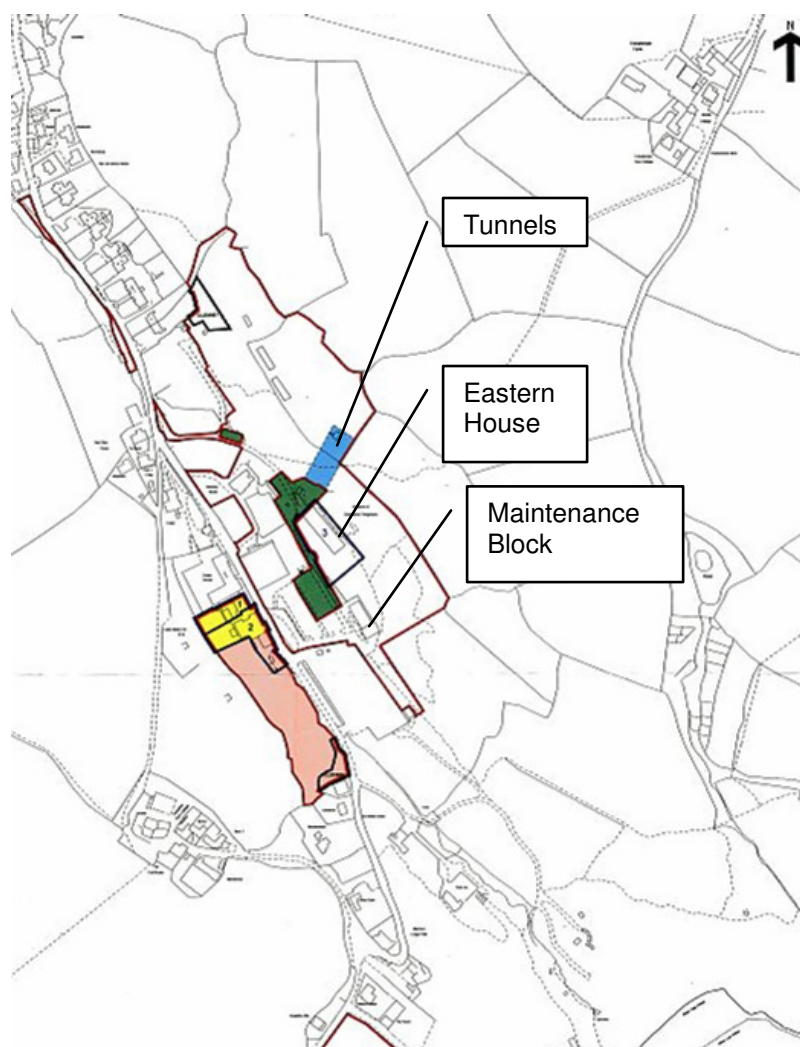


Figure 1: Site location. PK Trust holding, with location of Museum buildings affected by development proposal (Taken from Land Registry Title Plan)

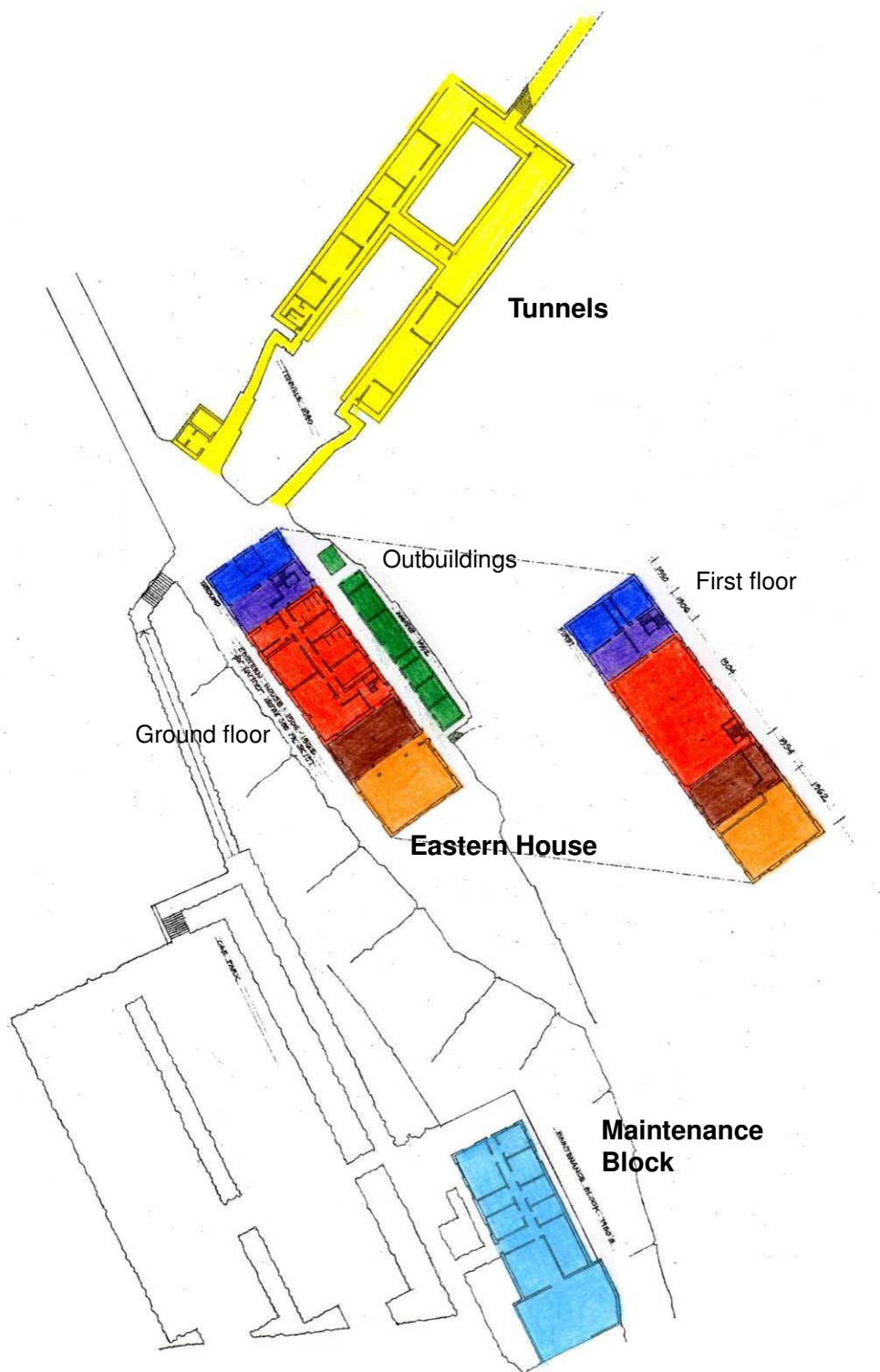


Figure 2: Site plan (existing) showing key building phases:
Red -1904; Purple -1906; Yellow -1941; Blue - 1950; Green -from 1952/4; Brown - 1954; Orange -1962; Turquoise - 1970s / 1980s (Long and Kentish architects base plan)

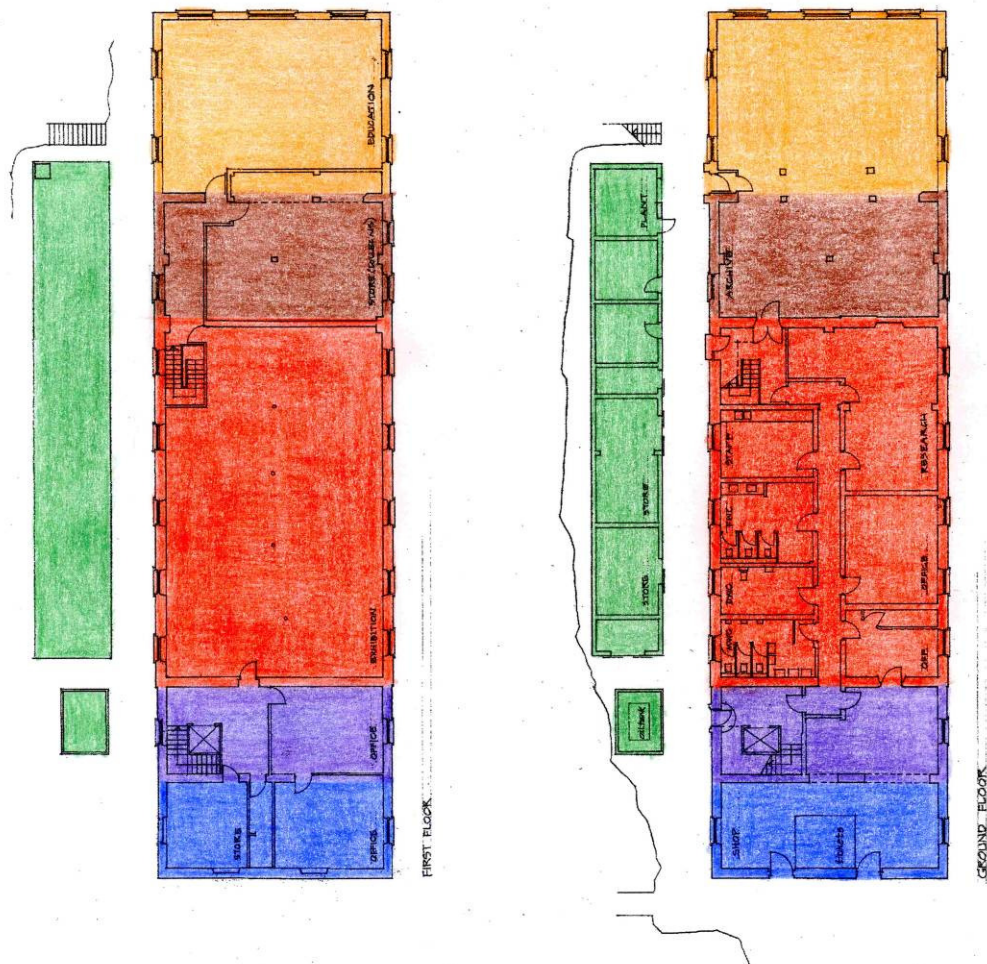


Figure 3: Plan of Eastern House (existing), showing key building phases:
Red -1904; Purple –1906; Blue – 1950; Green – from 1952/4; Brown –1954; Orange –1962 (Long and Kentish architects base plan)

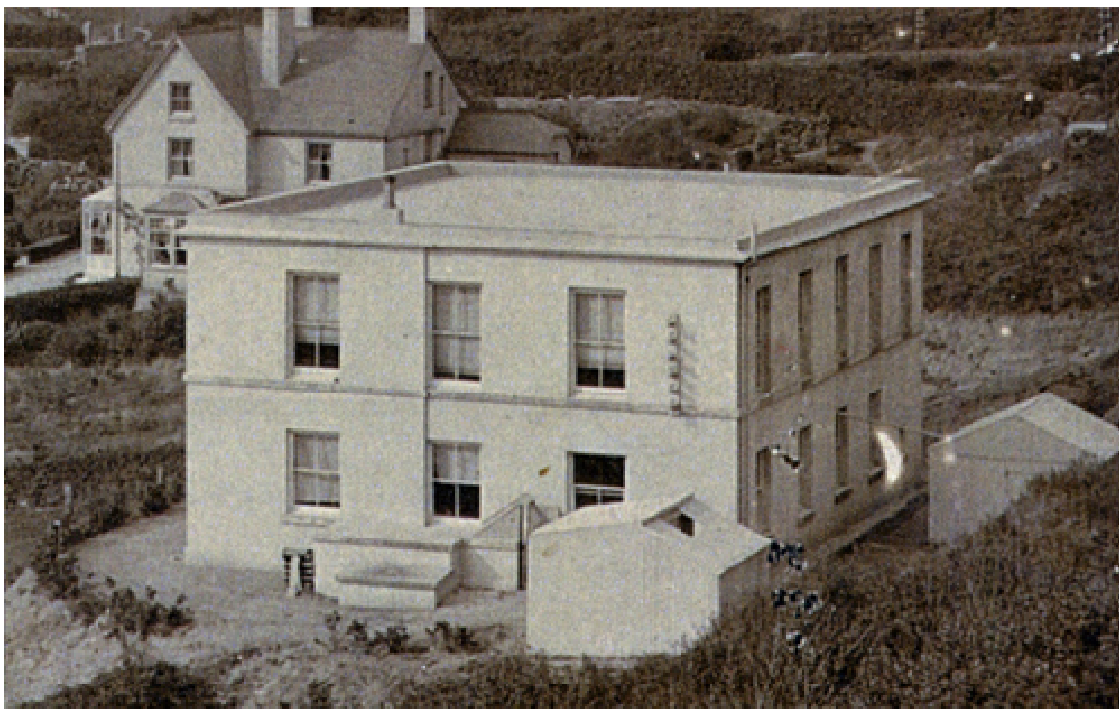


Figure 4: Eastern House soon after erection in 1904, from SE; with chimney on S elevation and separate boiler and coke bunker, and what appear to be ceramic insulators for electrical cables to run onto on top right corner of wall

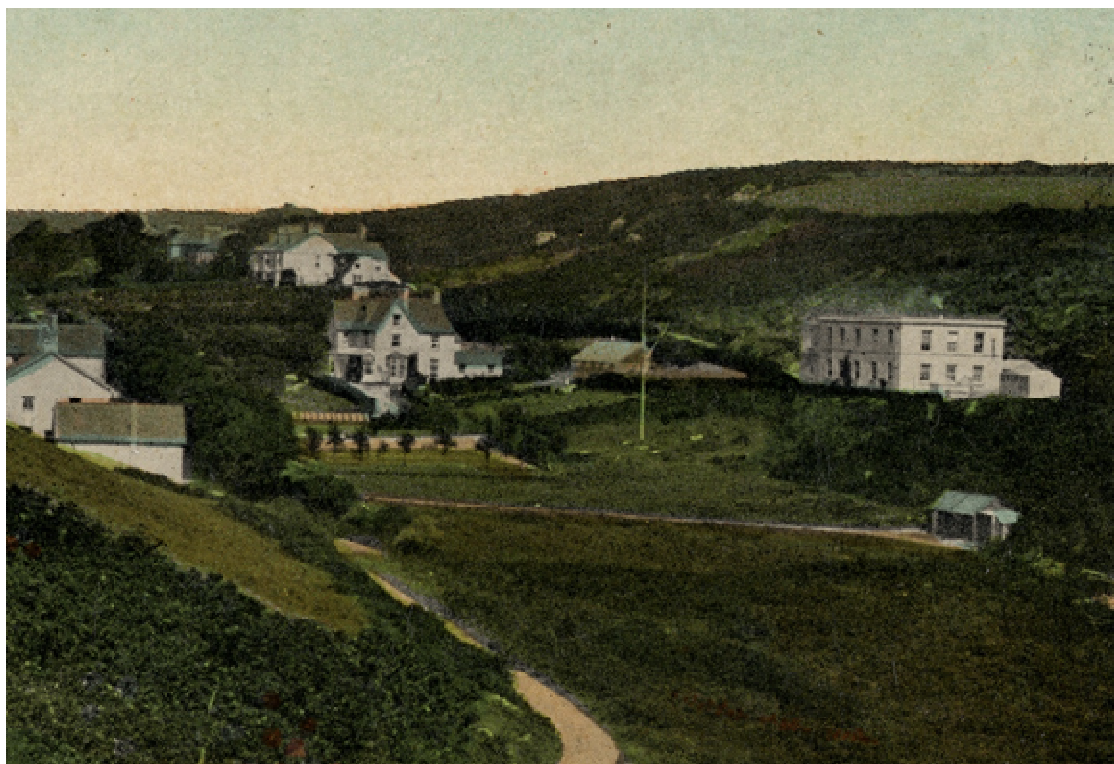


Figure 5: Long view of Eastern House from SW (Minack road); tinted postcard photograph taken just prior to WW1, with 1906 N extension already built (note the smoke coming out of the chimney and the precursor to the Maintenance Block centre ground right)



Figure 6: Long view of Eastern House from SW, postcard photograph taken c1920; the building is partially covered in Ivy and now has roof ventilators



Figure 7: Eastern House from SW, 1940/41; with boarded-up windows, camouflage paint & ivy cover



Figure 8: 1950s aerial view looking NW up Porthcurno Valley, showing the end wall of the 1954 extension to Eastern House



Figure 9: Eastern House 1954, from WSW, with the now-demolished Western House in front, on site of present car park; note 1950 extension N and 1954 extension S (with chimney above end wall)



Figure 10: Roof of Eastern House 1950/54, from NNE (with roof ventilations visible on original 1904 building)



Figure 11: Eastern House 1962, from WSW, with final (S) extension of that date now built (note lightening conductor rising above 1906 façade)



Figure 12: Eastern House – west (front) elevation, from SW



Figure 13: Eastern House – west (front) elevation, from S



Figure 14: Eastern House – west (front) elevation, 1906 window to be converted to door, from WSW



Figure 15: Eastern House – south (side) elevation, 1962 extension, from SE



Figure 16: Eastern House – roof and east (back) elevation, with roof of service range in foreground, from E



Figure 17: Eastern House – east (back) elevation and service range with boiler chimney, from SE



Figure 18: Eastern House – east (back) elevation and service range with engine/generator house foreground & boiler chimney beyond, from NW



Figure 19: Eastern House – north (side) elevation, from NW



Figure 20: Eastern House – ground floor, inside 1950 extension, looking towards Museum entrance doors (converted windows), from S



Figure 21: Eastern House – ground floor, inside 1950 extension (now Museum entrance hall & shop), looking towards partially removed wall of 1906 extension, from NW



Figure 22: Eastern House – ground floor, inside 1906 extension (now Museum cafe), looking towards window to be converted to doorway, from NE



Figure 23: Eastern House – ground floor, disabled toilet (with cast iron radiator) at back of 1904 core building, from SW



Figure 24: Eastern House – ground floor, volunteer room at front of 1906 core building, from N

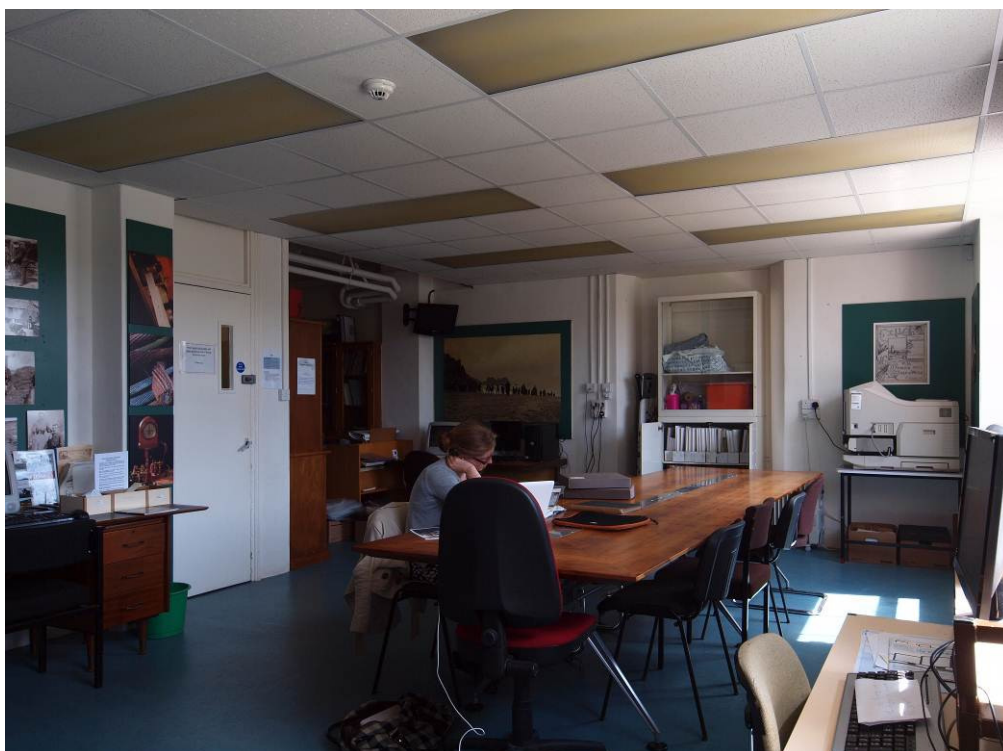


Figure 25: Eastern House – ground floor, research room at front of 1906 core building, from NW



Figure 26: Eastern House –view from W corner of archive store, which occupies ground floor of 1954 & 1962 extensions



Figure 27: Eastern House – first floor, collections store (in 1954 extension), looking E towards pillar on former line of 1954 end wall



Figure 28: Eastern House – exhibition room (originally the instrument room), occupying the whole of the first floor of the 1904 building



Figure 29: Eastern House – education room, occupying most of the first floor of the 1962 extension, viewed from E corner



Figure 30: Eastern House – 1906 moulded entablature & cast iron rainwater head; 1906 decorative coving & picture rail; 1950s/60s pipes and cast iron radiator; electrical switch board



Figure 31: Maintenance Block, from NE



Figure 32: Maintenance Block, from S

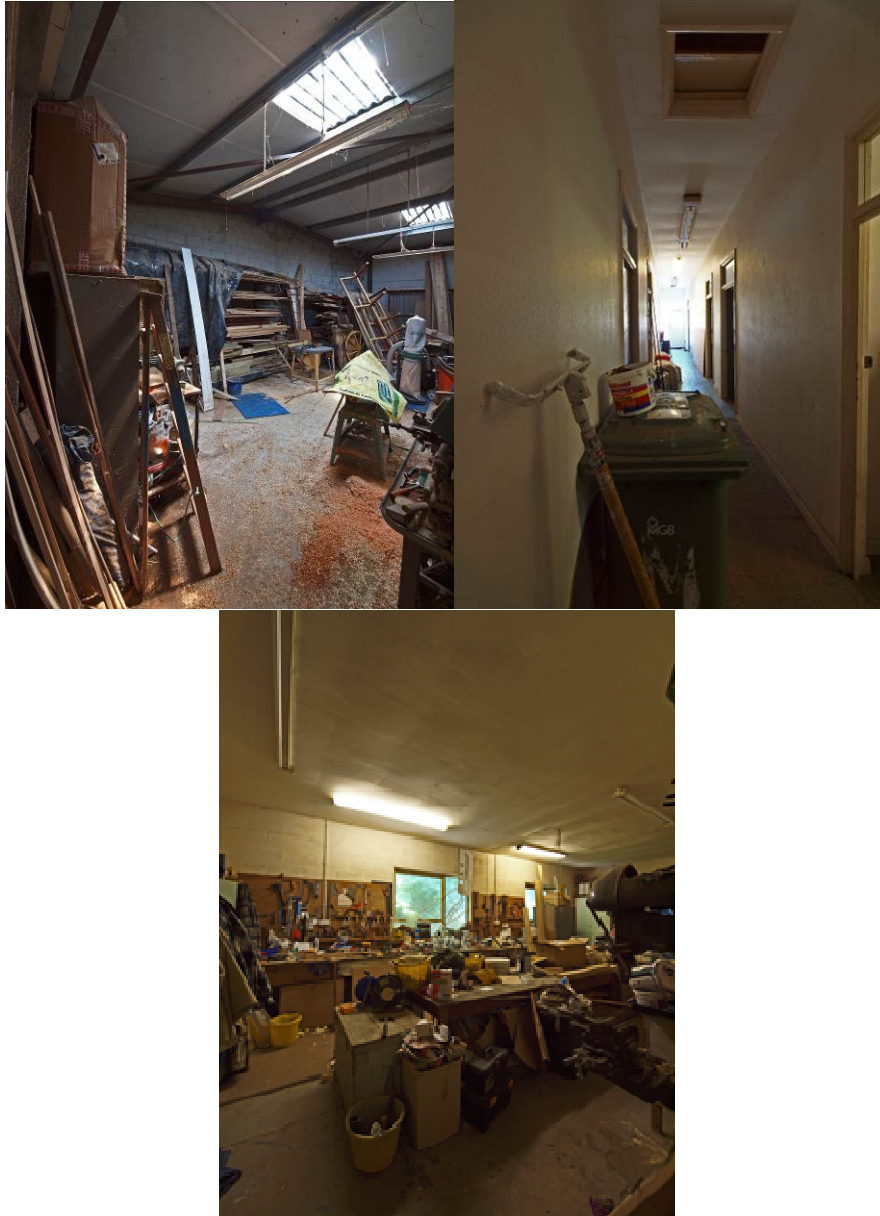


Figure 33: Interior views of the Maintenance Block

Appendix: Register of Black & White Photographs (taken 13.02.2012)

Film / Shot	Subject / direction
1 / 1	Eastern House & Tunnels, Long view from Minack Road (SSW)
1 / 2	Eastern House & Mercury House, Long view from Minack Road (SSW)
1 / 3	Eastern House, viewed from steps of Zodiac House, from SW
1 / 4	Eastern House & Tunnels, viewed from steps of Zodiac House, from SW
1 / 5	Maintenance Block, SW side and NW end, from NW
1 / 6	Maintenance Block, NW end, from NW
1 / 7	Maintenance Block, SW side, from WSW
1 / 8	Maintenance Block, SE end, from SE
1 / 9	Maintenance Block, SE end asbestos roof, from E
1 / 10	Eastern House, exterior, N elevation, from NW
1 / 11	Eastern House, exterior, roof, from N
1 / 12	Eastern House, exterior, roof & context shot, from NE
1 / 13	Eastern House, exterior, N (side) elevation & Tunnel entrances, from SW
1 / 14	Eastern House, exterior, W (front) & N (side) elevations, from WNW
1 / 15	Eastern House, exterior, W (front) elevation, 1906 GF window (to be a door), from WSW
1 / 16	Eastern House, exterior, W (front) elevation, most NW 1904 GF window & cable hatch, from WSW
1 / 17	Eastern House, exterior, W (front) elevation, 3 cable hatches, from S
1 / 18	Eastern House, exterior, W (front) elevation, rainwater head & fascia detail
1 / 19	Maintenance Block, roof, from NW
1 / 20	Eastern House, exterior, S (side) elevation, from SE
1 / 21	Eastern House, exterior, E (back) elevation & service range, from ESE
1 / 22	Eastern House, exterior, E (back) elevation, from NW
1 / 23	Eastern House, exterior, E (back) elevation, 1906 extension, doorway, from NE
1 / 24	Eastern House, exterior, E (back) elevation, 1962 extension, doorway, from SE
1 / 25	Eastern House, exterior, E (back) elevation, doorway (1904 window), from N
1 / 26-36	Eastern House: interior, ground floor (see Fig 34 for photo locations)
2 / 1-11	Eastern House: interior, ground floor (see Fig 34 for photo locations)
2 / 12-25	Eastern House: interior, first floor (see Fig 35 for photo locations)
2 / 26-31	Maintenance Block: interior (see Fig 36 for photo locations)
2 / 32	Maintenance Block: exterior, N corner, NE side & retaining wall, from NW
2 / 33	Maintenance Block: exterior, SW side & entrance, from WNW
2 / 34	Maintenance Block: exterior, SE end, from S
2 / 35	Maintenance Block: exterior, SE end, from S

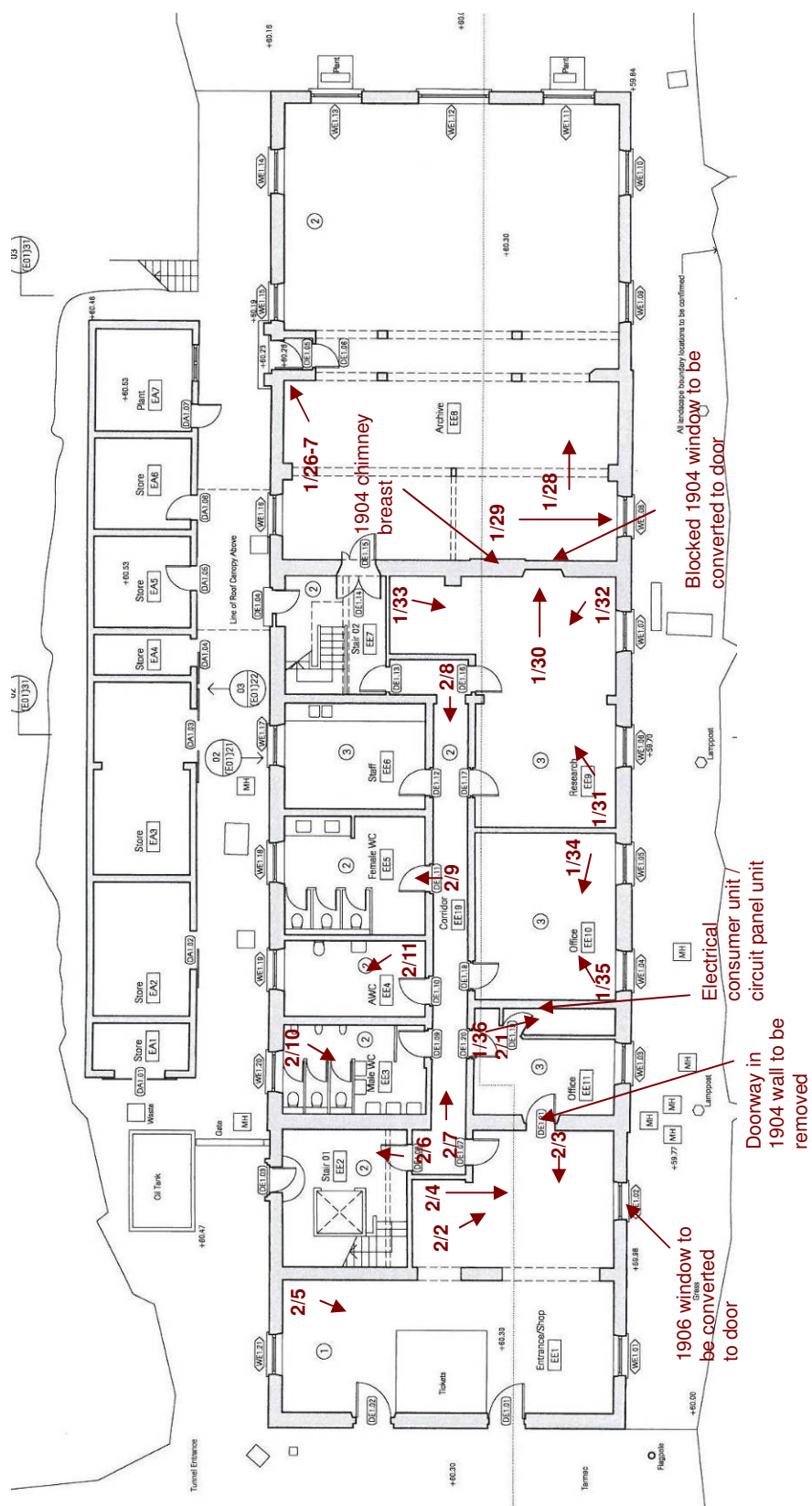


Figure 34: Eastern House (ground floor) – black & white photo locations and direction of shot, 13/02/2012 (Long & Kentish architects' base plan)

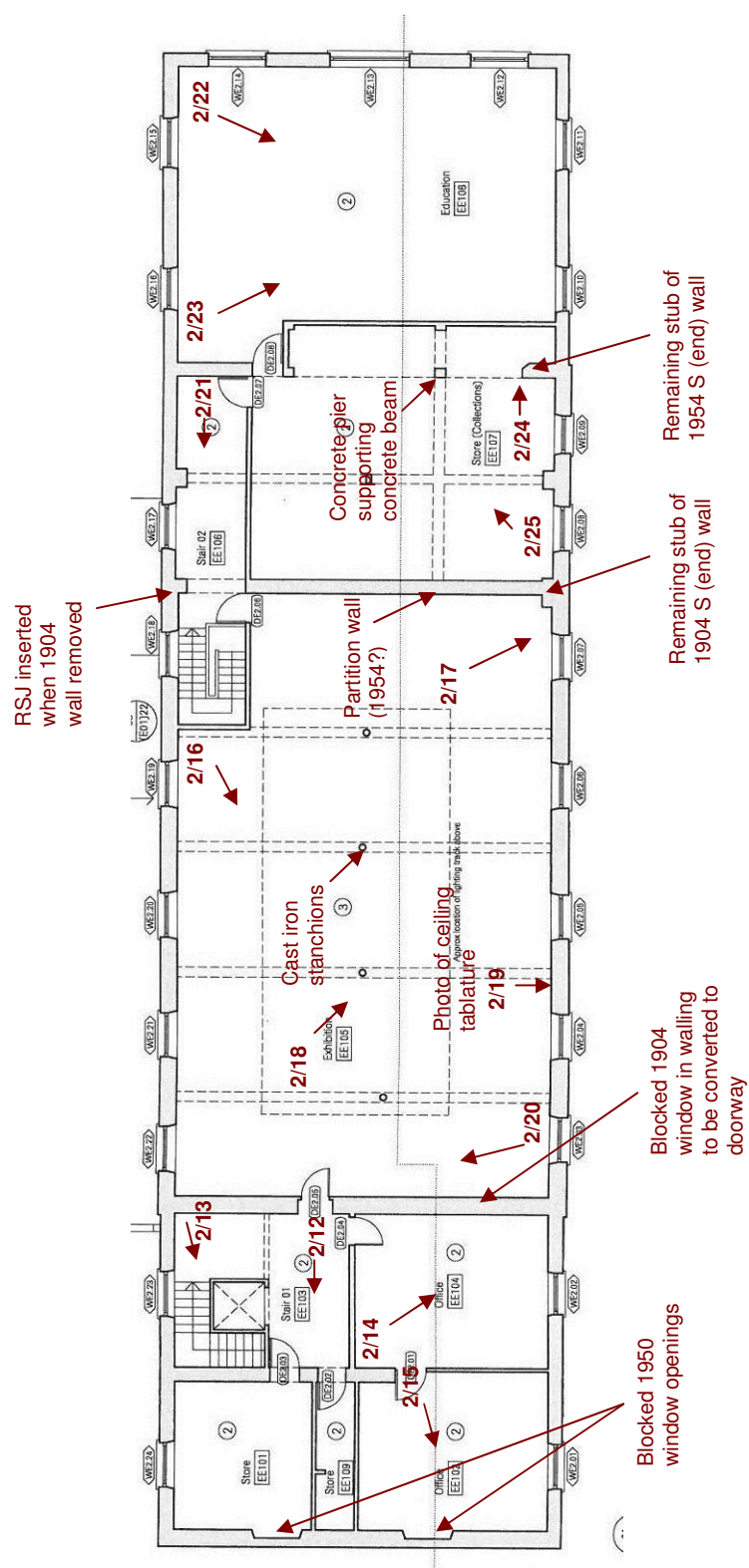


Figure 35: Eastern House (first floor) – black & white photo locations and direction of shot, 13/02/2012 (Long & Kentish architects' base plan

33