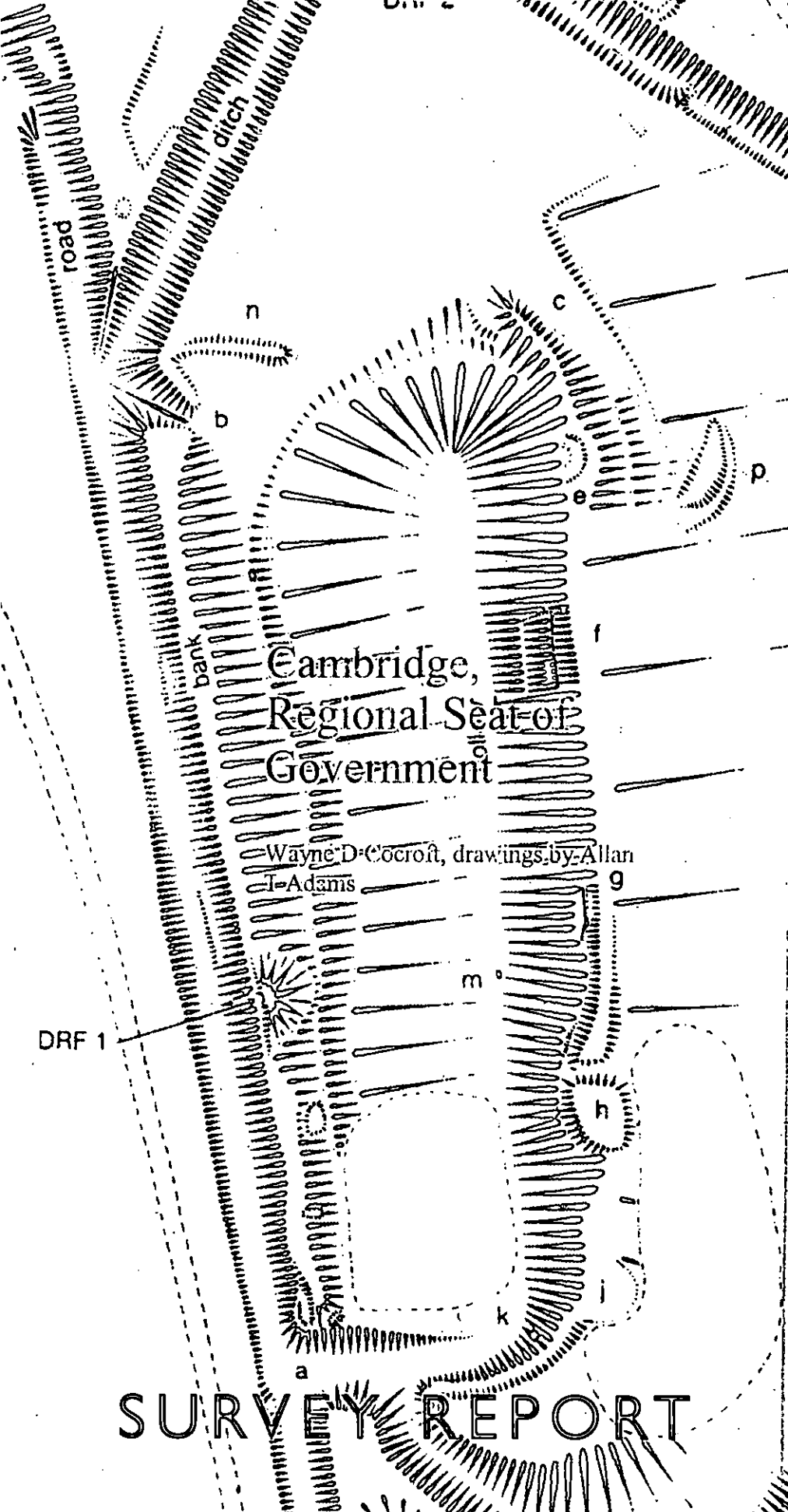




ENGLISH HERITAGE



Cambridge,
Regional Seat of
Government

Wayne D. Crocroft, drawings by Allan
J. Adams

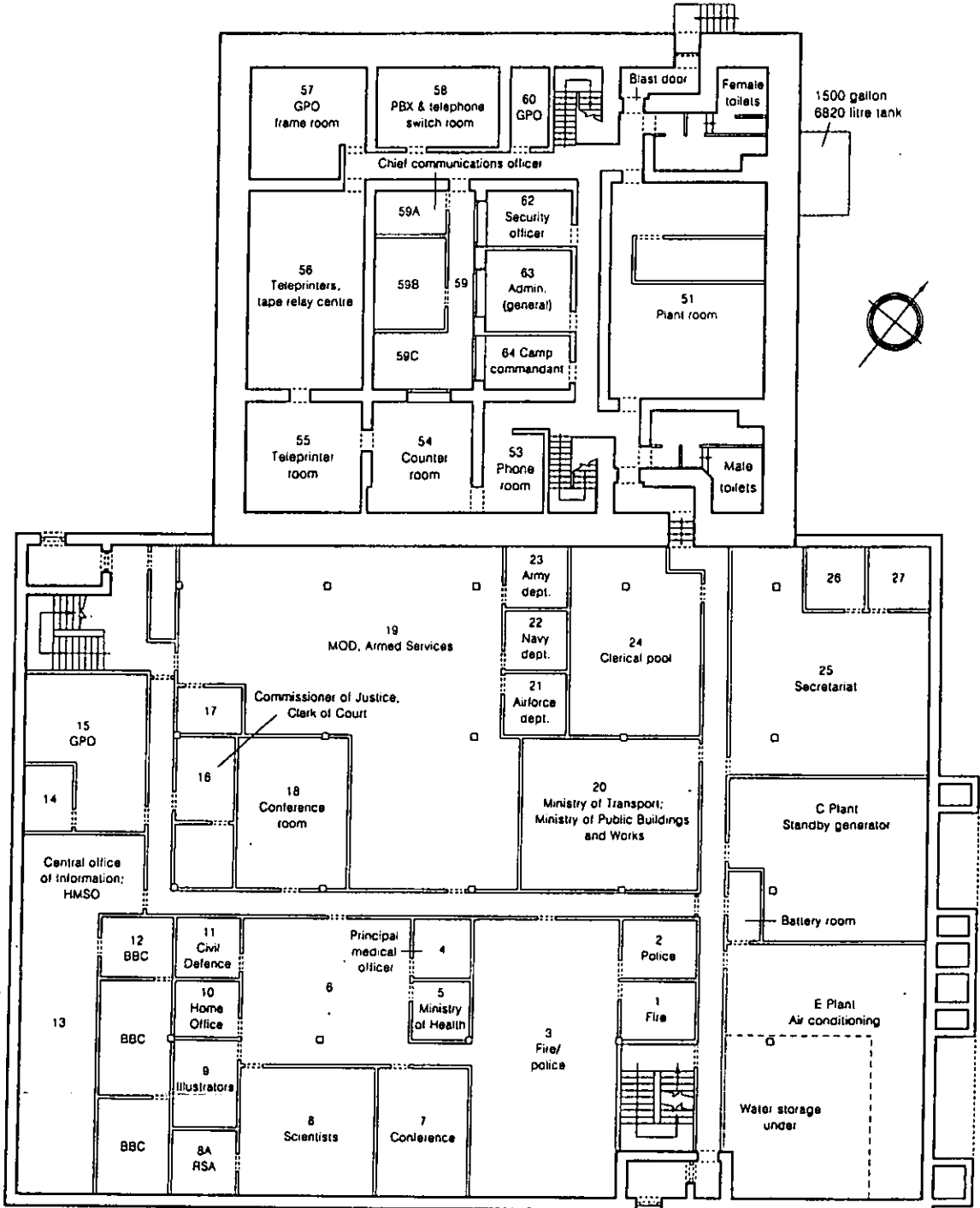
DRF 1

SURVEY REPORT

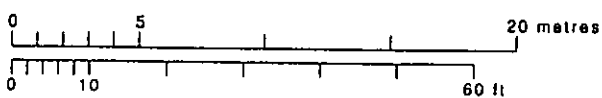
REGIONAL SEAT OF GOVERNMENT 4 CAMBRIDGE
 CROWN BUILDING, BROOKLANDS AVENUE,
 CAMBRIDGE,
 CAMBRIDGESHIRE

NGR: TL 455 565
 NBR No: 96176

OLD BUILDING



NEW BUILDING



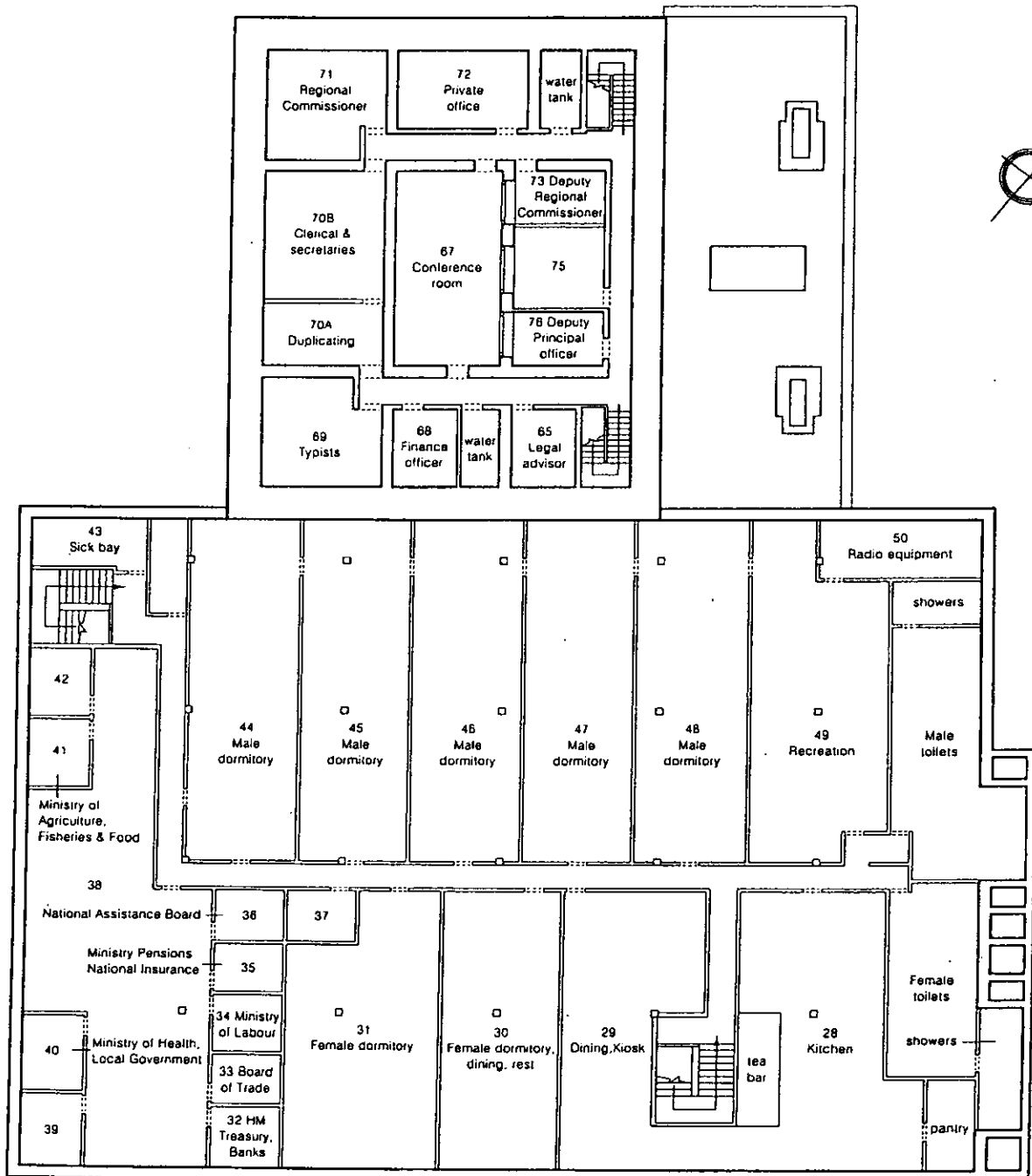
PLAN OF LOWER FLOOR



REGIONAL SEAT OF GOVERNMENT 4 CAMBRIDGE
 CROWN BUILDING, BROOKLANDS AVENUE,
 CAMBRIDGE,
 CAMBRIDGESHIRE

NGR: TL 455 565
 NBR No: 96176

OLD BUILDING



NEW BUILDING



PLAN OF UPPER FLOOR



COLD WAR PROJECT
SURVEY REPORT
REGIONAL SEAT OF GOVERNMENT 4

Cambridge
Cambridgeshire

NBR No: 96176
NMR No: TL 45 NE 146
NGR: TL 455 565
UID: 1175992

1997

Investigated by Wayne Cocroft
Report by Wayne Cocroft
Drawings by Allan Adams
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CONTENTS

Summary	1
History	2
Description	4
War Room or Old Building 1953	4
Exterior	4
Interior	4
Regional Seat of Government or New Building early 1960s	7
Exterior	7
Interior	7
Site Archive	9
Acknowledgement	9
Sources	10
Primary	10
List of air photographs consulted, held by NMR Swindon	10
Secondary	10
Appendix 1	11
Functional Directory of Rooms	
Appendix 2	15
Copy of Telephone List recovered from the Old Building	
Appendix 3	16
Notes on the margin of drwg. MoW HB 1/1 1952	
Appendix 4	20
Inventories of Furniture	

Appendix 5

Copy of instructions for tape relay Centre Outgoing Circuit Operators, found in Room 50

Appendix 6

List of RCHME photography

Figures

War Room 1952 Plan of Lower Floor

War Room 1952 Plan of Upper Floor

War Room 1952 Section A-A1

War Room 1952 Section B-B1

Regional Seat of Government Plan of Lower Floor

Regional Seat of Government Plan of Upper Floor

SUMMARY

The Regional Seat of Government (RSG) is a heavily protected double-storey surface bunker. It is essentially a two-phase structure comprising, a Regional Commissioner's Office, or War Room constructed in 1953, to the southern face of which a larger bunker was butted in the early 1960s, to form a Regional Seat of Government (RSG). Its function was to provide a protected seat of government in the event of an extreme civil emergency, but more specifically against the threat of a nuclear confrontation. The structure remained in use until the early 1990s.

At the time of the RCHME investigation, in November 1997, the bunker, except for the plant rooms, had been stripped of its contents, but remained in sound condition.

HISTORY

In the wake of civil unrest during the 1920s, provision was made for the continuance of central government through the appointment of a group of commissioners. In an emergency they were empowered to take decisions on behalf of the government, and in a crisis could assume all the powers of the state. For administrative purposes the country was organised into divisions, Cambridge was selected as headquarters for the eastern part of England. During the Second World War Cambridge remained as the headquarters, of what was now termed a region, a role it retained after the war as the headquarters of Home Defence Region 4 (Laurie 1970, 5,9; Campbell 1982, 55-6).

The location of the headquarters building for the commissioner during the 1920s and 1930s is unknown. It is, however, likely that the wartime regional civil defence offices and staff were located in the Temporary Office Buildings (TOBs), erected in Brooklands Avenue during the war. In the early 1950s the commissioners were equipped with 'War Rooms' to withstand the effects of atomic blast, radiation and fire, with only two exceptions they were based in the cities and towns of their wartime predecessors (Campbell 1982, 55-6). Each of the 12 post-war, mainland home defence regions and Northern Ireland was provided with a War Room; the London area was sub-divided into four regions, giving in total 17 War Rooms. The cost of each was about £100,000. The War Rooms provided accommodation for the Regional Commissioner and around 50 key staff including a scientific adviser, fire and hospital controllers, police and military liaison staff (Campbell 1982, 202-4).

The network of War Rooms was, however, relatively short-lived, and with the more awesome threat of the H bomb, in September 1955 the government decided to strengthen and enlarge the system of the home defence regions. Under the new scheme the regional commissioners were to be equipped with larger protected headquarters known as Regional Seats of Government (RSGs). In all cases bar two, Cambridge and Nottingham, the RSGs were placed in alternative locations to the War Rooms.

In these enlarged centres there were rooms for representatives of the major government departments. The titles of departments shown on doors of the Cambridge bunker suggests they reflect the allocation of rooms in the late 1960s. At Cambridge accommodation was provided for officials from The Home Office, Civil Defence, Ministry of Health, Central Office of Information, Her Majesty's Stationery Office, Ministry of Transport, Ministry of Public Buildings and Works, Her Majesty's Treasury, The Board of Trade, Ministry of Labour, Ministry of Pensions National Insurance, National Assistance Board, and the Ministry of Agriculture, Fisheries and Food. Rooms were also set aside for military liaison officers from the army, navy and airforce. Local government was represented by a couple of officials, and officers from the police and fire services. Legal matters arising in an emergency situation were to be dealt with by a legal advisor, a commissioner of justice, and a clerk of court. All these people reported to the regional commissioner and his deputy. Accommodation was also provided for scientific advisors and support staff including illustrators, clerical and telecommunications staff. Additionally, the BBC provided a small number of staff to run a studio, to transmit taped messages and live broadcasts from the regional commissioner. Following a notorious break-in to the RGS at Warren Row, Maidenhead, by a nuclear protest group calling themselves 'Spies for peace', a list of the officials allocated places at Cambridge was published (CCL C45.8).

In a new scheme devised in 1963, and implemented by 1965, the country was split into 27 sub-regions each administered by a Sub-Regional Control (SRC), Cambridge was designated SRC41. The home defence system underwent its fifth post-war reorganisation in 1972, under this plan the control centres were dubbed Sub-Regional Headquarters (SRHQs). At this date Cambridge was no longer listed as a SRHQ (Campbell 1982, 221). Fieldwork has, however, confirmed that the structure was maintained throughout the 1970s, and that during the late 1980s a programme of refurbishment had been put in hand, perhaps to bring it up to the standards required for a Regional Government Headquarters (RGHQ).

For all of this period the building was kept in a state of readiness, to be occupied in the event of developing crisis. Under normal circumstances the bunker would receive periodic visits from maintenance men. Also at regular intervals the bunker would be staffed by designated personnel for training exercises, to simulate its wartime role. From details revealed by inventories of furniture (see appendix 4) it is evident that provision was made to sleep around 450 people. This number could have been greater if a 'hot bed' system was in operation

The presence of the Regional Seat of Government at Cambridge moved, the Liverpool poet, Adrian Mitchell to verse. In a poem entitled 'On the Beach at Cambridge' (inspired by the 1957 novel *On the Beach* by Nevil Shute), he described what it would be like to emerge from the bunker after a nuclear holocaust.

The structure remained operational until the early 1990s. Subsequently most of its furniture and fittings have been removed except for the standby generators, air filtration plants and obsolete items of furniture.

DESCRIPTION

The RSG is situated about 1.6 km (1 mile) to the south of Cambridge city centre. Typically for a structure of this type it is situated at the periphery of a large estate of government offices.

As stated above, the RSG is a two-phase structure, and for the purposes of description it is convenient to describe the 1950s War Room and then the early 1960s addition as separate structures. During their working life they were referred to as the Old Building and the New Building.

The RSG lies in the southwest corner of a large government office estate and sits in an enclosure, fenced by standard concrete posts with out-turned tops supporting three strands of barbed wire, with a standard chain link infill. The compound is entered through double gates at its northeast corner; a metallised perimeter track leads along its eastern and southern sides, terminating at the main door in the southern elevation.

War Room or Old Building 1953

The War Room is of a standard type, it has a rectangular plan of 27.13m (89ft) by 22.25m (73ft), and its long axis is oriented from south-west-west to north-east-east. Aerial photographs show that there was no evidence of building activity in April 1952 (RAF 540/706 F14 Frame 5010). But by May 1953 construction was well advanced, with all the walls in place in preparation for casting the roof slab (RAF 58/1119 F21 Frames 102-3).

Exterior

The War Room is constructed from reinforced concrete, the external walls are 1.57m (4 ft 10 ins) thick, and their faces are of self-finish concrete. It is a stepped structure, comprising, to the west, the main double-storey section which accommodated the map room and associated offices, and to the east a single-storey annexe which housed the plant rooms and toilets. All the elevations are plain and featureless except for a single door in the northern side of the annexe.

The roof of the structure is 1.5m (5ft) thick. On the roof of the single-storey annexe, above the plant room, are three flat-topped rectangular air intakes and exhaust shafts. Rain water is collected by cast-iron gutters and drainpipes, the upper parts of the drainpipes have been encased by curved stainless steel sheets, perhaps to deflect blast damage or to prevent climbing. To prevent rain water splash down the exterior of the walls, the roof has been extended with a cantilevered gutter 0.46m (18 inches) in width and 0.18m (7 inches) thick.

Adjacent to the eastern wall of the War Room, adjacent to the plant room is a freestanding, unprotected steel fuel tank with a capacity of 6820 litres (1500 gallons).

Interior

The lay out of the War Room is essentially symmetrical down its long axis and the arrangement of rooms is virtually unaltered from the 1950s. The most noticeable exception is the insertion of a suspended floor, in the formerly double-storey map room

at the centre of the building. The internal walls are generally of self-finish concrete, and in places the impression of timber shuttering is visible. For minor internal partition walls hollow bricks have been used. The wall surfaces are painted, usually in a cream colour. The room functions shown on the accompanying plan probably date from the reorganisation of the War Room after the construction of the New Building in the early 1960s.

The War Room is entered from the north side up a flight of steps to a locked, outer steel door. In the latest phase of use this has effectively become the rear entrance to the bunker. Beyond the door the entrance corridor turns through 90 degrees, to deflect and lessen the effect of any blast wave striking the building. At the end of this short corridor is a steel blast door which leads into the War Room. Passing through the blast door, immediately on the left are female lavatories. They comprise, three toilet cubicles, three wash basins and a shower cubicle; hot water was provided by a 'Twenty-Two' electric boiler, supplied by Heatrae of Norwich. The internal partition walls in this room are constructed from hollow bricks. The arrangements on the northern side of the War Room were identical, except that the blast door has been removed and former outer door gives access into the New Building. On this side the lavatories are male, and in addition to the three toilet cubicles, it is fitted with three urinals and four wash basins.

Between the lavatories is the plant room. This contains a stand-by electricity generator and an air filtration plant. The equipment is a mixture of original plant installed in 1953, including The Cyclone Fan supplied by Matthews and Yates Manchester Cyclone Works, Swinton, and two small alternating current three phase 'Cylent' electric motors supplied by Brook Motors Ltd, Huddersfield. Periodic updating of the equipment is evident for example in 1973 a new electric switch-box was supplied by Dale Electric, Filey, England.

Typically for bunkers of this date, air conditioning was by means of rectangular section galvanised metal ducting fixed to the ceilings. Electric cabling is carried around the building in small bore metal pipes fixed to the wall surfaces. Two circuits were evident, a normal and emergency circuit. The latter circuit is usually, only connected to a single light fitting at the centre of each room. Contemporary door fittings - knobs, key escutcheons, and finger plates are of bakelite.

At the centre of the building is a square block of rooms 10m by 10m (33 ft by 33ft). This is flanked by a corridor on its southern and eastern sides, which gives access to the rooms of the central block and the rooms ranged around the external walls of the War Room. A short length of corridor on the western side gives access to rooms along the western side of the structure. The western half of this central block was originally occupied by a double-storey map room, overlooking this room to the east were smaller control rooms on the ground and first floors. This group of rooms formed the main focus of activity within the building. Probably during the refurbishment in the early 1960s a suspended floor, supported on concrete pillars and beams, was inserted to create an upper room. The map room was entered through a single door in its southern wall. In operation the map room probably housed a large situation map on its tall west wall, and there was probably also a plotting table in the room. Along its eastern side there are three ground floor control rooms, they appear to be little altered from their original form. The rooms are self-contained and are entered through doors from the corridor adjacent to the plant room. All three rooms have observation windows which

overlooked the map room, these are metal framed and glazed in 6.35m (¼inch) perspex. Small serving hoppers at the base of the windows allowed messages to be passed between the map room and the control rooms. The tops of the windows are curved to give a clear view of upper part of the map room wall. On the ground floor there is an additional control room on the southern side of the map room. In the latest phase of operation the ground floor rooms in this block housed the most sensitive functions in the buildings. Entry into this block was restricted by steel doors secured with combination locks, and a steel grill was placed over an opening between the plant room and the eastern corridor.

In its latest phase the other ground floor rooms were occupied by telecommunications equipment. These included GPO frame and apparatus rooms along the southern side. These had largely been stripped of equipment, except in room 58 for a small Loudspeaker Unit WB 1400 and Receiver Speech 1410 unit, installed as part of the warning broadcast system. A label on the unit noted that Cambridge was in Warning District 11 Colchester. In the adjacent room, 57, a relatively modern distribution frame remains in place, this is a Frame WB1400 Distribution Frame supplied by Warner Technology Ltd, 51 Regal Drive, Royal Lane Sohan, Ely, Cambridgeshire. Along the western side of the building rooms 55 and 56 were occupied by teleprinters and tape relay machines. The upper portions of these rooms are lined in sound proof boards.

Access to the first floor is by concrete stairs situated in the eastern corners of the main double-storey block. Above their central landings are concrete slabs, which support galvanised metal water tanks. Two further water tanks are located in rooms on the first floor. The floor plan of the first floor is almost identical to that of the ground floor. At the centre is the square block of rooms comprising the former map room and control rooms along its eastern side. As described above, a suspended floor was inserted into the map room to create an upper room. This was used as conference room, to allow access into this room a door was cut into its southern wall. On its eastern side, three rooms overlooked it through glazed panels, during its last phase of use two were occupied by the Deputy Regional Commissioner and Deputy Principal Officer. A corridor around three sides of the central block of rooms gives access to these rooms, and the rooms set against the external walls of the War Room. In the northwest corner of the War Room was the Regional Commissioner's Room, and along the northern wall were rooms for the Legal Advisor and Finance Officer. In the corner of room 65, occupied by the Legal Advisor, is small, vertical lift shaft originally used to pass messages to the room below, 53. The remainder of the rooms were taken up by secretarial services.

Regional Seat of Government or New Building early 1960s

Under the scheme dating back to 1955 the regional commissioners were given extended responsibilities, and as a consequence were equipped with larger Regional Seats of Government (RSGs). The exact date at which the Cambridge RSG was built is, however, unclear. The only available design drawing for this phase is dated April 1962 (MPBW 1962, Drwg No. HB 1/1). Historic air photographs provide only a broad date for its construction between June 1961 and June 1967 (RAF 58/4438 F21 Frame 0060; OS 67145 V Frame 146).

Exterior

The RSG is butted against the southern wall of the 1950s War Room, its former southern entrance has, however, been retained as a connection between the Old and New Buildings. The RSG is a heavily protected, double-storey, reinforced concrete structure standing approximately 6.8m (22ft 4ins) tall. The exterior of the building is notable for the embellishment of its concrete surface. In contrast to the plain finish of the 1950s War Room all the elevations of the 1960s structure are divided into panels 2.44m by 1.12m (8ft by 3ft 8ins). These are arranged in an alternating pattern, with slightly raised panels, with a washed gravel finish contrasting to plain panels in between. The plain panels, are subtly decorated; the pattern being produced by the use of shuttering boards at different heights to produce a slightly uneven finish. All the rain water pipes are protected by curved stainless steel shields.

At ground level in its eastern elevation is a steel plate 1.88m (6 ft 2ins) by 2.50m (8 ft 2 ins) tall, bolted to the wall, which secures the opening to the plant room. Above are four openings for air intakes into the filter rooms: three are 1.08m square (3ft 6 ins) and the southern one is 1.5m (4 ft 11ins) wide. Over these, and above the roof-line, at either end of the elevation are raised exhausts vents. The only features in the northern elevation are a double set of doors 1.44m by 2.08m (4 ft 9 ins by 6 ft 10 ins), and to its west the main entrance to the RSG a single steel door 0.9m by 2.08m (6 ft 10 ins). The western elevation is featureless except for two security lights mounted on either corner. In the northern elevation is a single, steel emergency exit door 2.44m by 1.14m (7ft by 3ft 9 ins).

A tall, steel-framed radio mast has been removed from the roof of the RSG.

Interior

As noted above, the main entrance to the RSG is in its southern elevation. It leads into a small lobby area protected by a steel blast door - probably the door removed from the northern entrance to the 1950s War Room. From the lobby a corridor runs down along the width of the building towards former northern entrance of the War Room. To the east of this corridor are the plant rooms. Similarly to the plant room in the Old Building the plant shows evidence of periodic refurbishment, the diesel generator in the northerly room the C Plant was supplied by Dawson Keith Limited Havant, Hampshire in 1988 and has only been run for 58 hours. In the room to the south is the E Plant, this contains air conditioning equipment: the fan is a 'Tornado' type supplied by Keith Blackman Limited, London, the ducting was manufactured by Andrew Air Conditioning Limited, Woodbank Works, Stockport and was installed by Kershaw Heating Limited,

Cambridge. In between the doors to the C and E plants is small self-contained room which houses the standby batteries. At the far end of the corridor doors open into large featureless rooms, formerly equipped to house various government departments and secretarial services.

Approximately halfway along the main corridor another corridor runs westwards, just off the centre-line of the building. This gives access to rooms occupied by other government departments, advisors, and a BBC studio. At the time of closure the studio was in the process of being refurbished. The walls are of unfinished plaster and reused wiring conduits had been fixed to the wall but not painted. At its western end the main corridor turns northwards; stairs at the end lead to the first floor. A large L shaped room in the central block of rooms was occupied by the MOD and armed services, including three small rooms for the army, navy and airforce. The relatively small area allotted to the uniformed services implies it was not intended to house the military Regional Commander for Military Region 4, as has been suggested by one source (Campbell 1983, 131). The space occupied by the uniformed services is commensurate with that allocated to the military at other RSGs.

Returning to the main entrance, immediately after the lobby area is a staircase which leads to the basement and the first floor. The basement level is below the plant rooms, and contains a large Braithwaite tank, holding the emergency water supply, and in a separate room a large diesel storage tank. On the first floor the staircase opens out into a short corridor, at the end of which is the main axial corridor which runs directly above the ground-floor corridor. At the eastern end of the corridor are the male and female lavatories. The female lavatories in the southeast corner are equipped with nine toilet cubicles, nine wash basins and two shower cubicles. The male lavatories in the northeast corner are equipped with eight toilet cubicles, 10 urinals, nine wash basins and two shower cubicles. Adjacent to the male lavatories is a large recreation room, in a corner of which is a small self-contained radio room. To its west are five identical, open rooms, 44-48: all were male dormitories. They were entered from single doors along the main corridor and all have interconnecting doors along to their rear. Each was equipped with two and three tier bunks, and was capable of sleeping around 50 people. In the southern part of the bunker adjacent to the ladies lavatories is the kitchen, room 28. This is equipped, along its eastern wall with two Type 610 Electric ovens (supplied by Smith and Wellstood Limited, Bunnybridge, Scotland, in 1964), three sinks and two water boilers. On the opposite side of the room is tea bar which is equipped with an Automatic Still Boiler with a small brass plate stamped 'EIIR 1-9-53'. A narrow corridor around the end of the stairs connects the kitchen to the dining area, room 29. The next two rooms along this side, 30 and 31, were female dormitories, each of these probably slept 60. In the southwest corner of the building is a L-shaped room, at its centre is a large communal area and along the walls are small rooms which were occupied by representatives of various government departments. Some of the room divisions were relatively recent and consisted of unpainted wood and plasterboard. As with officials allocated separate rooms elsewhere in the building, in addition to their desk and filing cabinet, the officials also slept in these rooms. As on the ground floor the main axial corridor turns northwards, and at its end is the staircase from the ground floor. Also at the end of the corridor is a small store room and the sick bay, which is over the lobby of the emergency exit.

Site Archive

Only two detailed plans and a schematic diagram showing room numbers are retained on site by Symonds Facilities Management. A number of items of ephemera were also found in the bunker, they have been transcribed and are appended at the end of the report.

ACKNOWLEDGEMENT

We are grateful to Mr S Potter of Symonds Facilities Management for allowing access to the RSG.

This account is based on a field investigation by Wayne Cocroft carried out in November 1997, record photography was taken by Alun Bull. The site plans were redrawn by Allan Adams.

SOURCES

Primary

CCL (Cambridge Central Library) C45.8 Spies for peace R.S.G.4 D Block Brooklands Avenue (196-)

Ministry of Works (Engineering Division) 1952 Regional Commissioners Office Ventilation, Gas Filtration and Hot Water Services. Job No. M52255 Drwg No. HB 1/1 23-06-52

Ministry of Public Buildings and Works (Engineering Division) 1962 Cambridge R.C.O. (extension) Proposed plant room arrangement Job No.HC/R 62024 Drwg No. HB 1/1 28-12-62

1964 No title, plan of ground and first floors scale 16ft to 1 inch

List if air photographs consulted held by NMR Swindon

RAF 540/706 F14 Frame 5010 09-Apr-1952

RAF 58/1119 F21 Frames 102-3 11-May-1953

RAF 58/4438 F21 Frame 0060 05-Jun-1961

OS 67145 V Frame 146 05-Jun-1967

Secondary

Campbell, D 1982 *War Plan UK* Paladin

Mitchell, A 1981 'On the Beach at Cambridge', 121-3 in Minnion, J and Bolsover, P 1983 *The CND Story* Allison and Busby

Laurie, P 1970 *Beneath the city streets* The Penguin Press

APPENDIX 1 Functional Directory of Rooms

Information derived from door signs and telephone lists recovered from the building.

New Building

Ground Floor

C Plant Standby Generator

E Plant Air conditioning

- 1 Fire
- 2 Police
- 3 Fire/Police
- 4 Principal Medical Officer
- 5 Ministry of Health
- 6 HO, CD, Scientist, Min Health, Illustrators, Conference
- 7 Conference
- 8 Scientists
- 8A RSA
- 9 Illustrators
- 10 Home Office
- 11 Civil Defence
- 12 BBC
- 13 Central Office of Information, HMSO
- 14 Unidentified
- 15 GPO
- 16 Commissioner of Justice, Clerk of Court
- 17 Unidentified
- 18 Conference Room

- 19 MOD Armed Services
- 20 Ministry of Transport, Ministry of Public Buildings and Works
- 21 Airforce Department
- 22 Navy Department
- 23 Army Department
- 24 Clerical Pool
- 25 Secretariat
- 26 Unidentified
- 27 Unidentified

First Floor

Un-numbered Female lavatories and shower room

Un-numbered Male lavatories and shower room

- 28 Kitchen
- 29 Dining, Kiosk
- 30 Female Dormitory, Dining, Rest
- 31 Female Dormitory
- 32 H M Treasury, Banks
- 33 Board of Trade
- 34 Ministry of Labour
- 35 Ministry Pensions National Insurance
- 36 National Assistance Board
- 37 Unidentified
- 38 Communal area for rooms 32-42
- 39 Unidentified
- 40 Ministry of Health, Local Government

- 41 Ministry of Agriculture, Fisheries and Food
- 42 Unidentified
- 43 Sick bay
- 44 Male Dormitory
- 45 Male Dormitory
- 46 Male Dormitory
- 47 Male Dormitory
- 48 Male Dormitory
- 49 Recreation
- 50 Radio equipment

Old Building

Ground Floor

- | | | | |
|----|---|----|-----------------------------|
| 12 | (Old number) Men's Toilet | 13 | (Old number) Women's Toilet |
| 51 | Plant Room (was 11) | 66 | Male Water Tank |
| 52 | Corridor | 67 | Conference Room |
| 53 | Phone Room | 68 | Finance Officer |
| 54 | Counter Room | 69 | Typists |
| 55 | Teleprinter Room | | |
| 56 | Teleprinters, Tape Relay Centre | | |
| 57 | GPO Frame Room | | |
| 58 | P.B.X. and Telephone Switch Room | | |
| 59 | Chief communications officer (was partitioned, A-C) | | |
| 60 | GPO Apparatus | | |
| 61 | Not shown | | |
| 62 | Security officer | | |

63 Administration General

64 Camp Commandant

First Floor

65 Legal Advisor

66 Male Water Tank

67 Conference Room

68 Finance Officer

69 Typists

70A Duplicating

70B Clerical and Secretaries

71 Regional Commissioner

72 Private Office

73 Deputy Regional Commissioner

74 Female Tank Room

75 Unidentified

76 Deputy Principal Officer

APPENDIX 2 Copy of Telephone List recovered from Old Building

Ground Floor Corridor No.4

Plant Room	51
Voice procedures	53
Counter Room	54 via 53
Teleprinter Room	55 via 53 or 56
Tape Relay centre	56
Security officer	62
Administration general	63
Camp commandant	64
Corridors 6-8 First floor	

Ground Floor Corridor No.5

Tape relay centre	56	Reg Comm Officer	59
G.P.O. Frame Room	57	Reg Wireless Engineer	59
P.B.X.	58	G.P.O. Apparatus	60
Chief Comms Officer	59	Corridors 6-8 First Floor	
Cypher	59		
Sen Comms Officer	59		

APPENDIX 3 Notes on the margin of drwg. MoW HB 1/1/1952

Hot water service

Hot water storage heaters Supplied by Ministry, to be fixed by contractor.

All pipe work and fittings Supplied & fitted by contractor.

Relief valves ½" spring loaded relief valves set to relieve cold water pressure 5lb/sq in to be fitted on cold water mains by contractor. ½" spring loaded relief valves set to relieve at cold water mains pressure 15lb/sq in to be fitted on hot water mains by contractor where shown.

Notes:- Where local pressures exceed 50 lb/sqin action is to be taken to fit pressure reducing valves on cold water mains, water heaters supplying showers to be fitted only after consultation with the local water supply authorities.

Tubes and Fittings To be of galv'd class B or copper as directed.

Electricity supply to be taken as 415-240 volts/3 phase/4wire/50~ for tender purposes. To be confirmed for each building before equipment is ordered.

Builders work As drawing No.HB1/1 with motor cases, timber frames for ductwork and grilles to details supplied by contractor.

Gas filtration plant

Gas filters and supporting steelwork Will be supplied by Ministry and fixed by contractor.

Ductwork and dampers etc Supplied and fixed by contractor all generally as specification.

Diesel generating set Will be supplied and fixed under separate contract, contractors to supply and fix storage tank and supports, exhaust vent and feed pipe as shown on drawing.

Pipework Exhaust piping from diesel engine and tank vent piping of Class 'B' tubes and fittings to BSS 1387, oil feed line of heavy gauge copper with screwed fittings to BSS 143.

Insulation Exhaust piping inside building to be wrapped with 3/8" diam. asbestos rope.

Fuel oil storage tank 1 black MS storage tank of 300 gallons capacity to conform to BSS 799 for oil burning equipment but in addition to have 2'-0" diam hinged filling cover and bolt tank to have suitable approved type M.S. supports 2'-0" high.

Method of operation

When external conditions vary from summer normal conditions certain adjustments to the positions of the dampers etc are necessary, they are broadly that

1 In normal summer conditions ventilation up to the full capacity of the plant will be necessary, fan discharge damper being adjusted to give comfort conditions, main intake dampers should be open and both banks of gas filters closed off, heater dampers wide open and heater battery off.

2 Summer conditions during gas attack Main air intake dampers tightly closed, one bank of gas filters open and working.

3 In winter normal condition Reduced ventilation, main dampers open, gas filter banks closed off, fan discharge damper closed to lower stop, heater battery on

and heaters dampers closed so that all intake air passes over heater battery.
 4 In winter during gas attack Main intake dampers tightly closed, one bank of gas filters open and working heater battery on and heater dampers closed.

Summary of above conditions In terms of damper positions and equipment usage is given in the following table:-

Item no.	Equipment	Summer Normal	Summer Gas	Winter Normal	Winter Gas
1	Main intake damper	Wide open	Tightly closed	Wide open	Tightly closed
2	Fan suction damper	Wide open	Tightly closed	Wide open	Tightly closed
3	Fan discharge damper	Open	Wide open	Closed to stop	Wide open
4	Heater battery	Off	Off	On	On
5	Heater battery dampers	Wide open	Wide open	Closed	Closed
6A or B	Gas Filter dampers	Both sets closed	One set open	Both sets closed	One set open

Note:- Whenever diesel generating set is in operation care to be taken that all doors in the plant are closed to ensure that all return air passes over diesel generating set before being exhausted to the atmosphere.

Specifications

Spec No. HZ01
 Schedules Nos H201/182 | Ventilation plant and ductwork

Spec no. H2
 Schedules No H2/182
 Preliminary clauses EHM 3 | HWS Pipework

BSS 799 Oil storage tank

General notes

Extent of contracts

The initial contract is to include for the normal ventilation plant normal ventilation plant ductwork and the HWS pipework, blanking of plate will be required under this contract at

A Tee piece formed by fan suction and gas filtered intake
 B1 & B2 Entry holes from main FAI shaft to gas filters

Separate prices will therefore be required for

- 1 Normal ventilation and HWS pipework
- 2 Gas filtration ductwork and dampers
- 3 Diesel oil fuel storage tank and pipework

Ventilation All items supplied and fixed by contractor

Fan 1 centrifugal cased input fan, motor and starter standby motor and starter. Normal duty of fan to be 9,500 C.F.M. against 1.652 WG (exclusive of filterbank resistance). But characteristics of fan to be such that when gas filters are in operation rating will automatically adjusted to 2,800 C.F.M against 3.9" W.G. exclusive of heater battery

resistance.

Filters 1 glass fibre or metal wool filter bank to pass 9,500 C.F.M. (available for filter 36 sq ft) 1 complete set of spare cells and 1 cleaning tray.

Electric and air heater battery 1-3 bank electric air heater battery of 22.5 kilowatts ratings heater and switches to be suitable for operation on 3 phase supply.

Ductwork To be generally as specification but with blanking off plates as shown on drawings and notes on 'extent of contracts'.

Dampers generally as specification except that the damper set in fan discharge shall have a bottom limit stop and locking device so that in normal winter conditions damper may be locked in position to allow the fan to pass only 2,800 C.F.M.

Evacuation valve two leaf evacuation valve in M.S. housing generally as indicated on drawing automatically operated by lever and balance weight to maintain a Plenum of 2" W.G. in the building at point Z under reduced volume conditions ie summer and winter gas and winter normal.

Schedule of grills

Ref No	No Off	Volume C.F.M.	Free Area sq ft	Approximate Dimensions	Controls volume and/or direction	Max speed at grill face
SG1	0	710	1.85	48" x 10"	Volume and horizontal ???	400 RPM
SG2	1	560	1.40	56" x 9"	"" ""	"" ""
SG3	2	490	1.25	36" x 8"	"" ""	"" ""
SG4	4	300	1.50	36" x 9"	"" ""	200 RPM
SG5	2	280	0.70	24" x 9"	"" ""	400 RPM
SG6	3	190	0.50	24" x 7"	"" ""	lost
List erased?						
SG8	7	140	0.35	13" x 7"	"" ""	lost
SG9	2	120	0.30	16" x 5"	"" ""	lost
SG10	8	100	0.25	12" x 6"	"" ""	lost
SG11	3	90	0.25	11" x 6"	"" ""	lost
SG12	3	70	0.20	10" x 6"	"" ""	lost
SG13	1	50	0.13	9" x 5"	"" ""	lost
SG14	2	30	0.10	8" x 5"	"" ""	lost

Automatic controls 1 duct thermostat in fan discharge before heater battery to bring first bank of heater battery into operation when intake temperature is below 45 degrees F 1 duct stat in fan discharge after heater battery to bring second bank of heater battery into operation when input air is below 55 degrees F 1 ret heater stat to bring third bank of heater into operation when room air is below 65 degrees F.

Starters and switches generally as specification but switches for heater battery and starter

for fan to be interlocked so that heater battery cannot be brought into operation unless the fan is running, changeover switch to be provided for bringing standby motor into operation.

(drawing box details)

Plant room lay out amended to include gas fans (see drawing No YH 195) HWS schemes amended Grilles in rooms 9, 10, 15 & 16 amended schedule amended to suit.

Drawn LRJ Checked WGB Date 13.2.53 Engrs appl ABB Date 28.2.53

Ref amendments

Secret Drawn LRJ Date 23.5.52 Checked WGB Date 12.6.52

Regional Commissioners Office Ventilation, Gas Filtration and Hot Water Services

Job Number M52255 Indent No.1 Engineers approval ?H Langstaff

Scales 1/8 inch & 1/4 inch to 1 foot Date 23-6-52

Drawing No HB 1/1 Ministry of Works Engineering Division London SW1

APPENDIX 4 Inventories of furniture, information taken from cards in found rooms

Room XXXI Female Dorm

11/1/66

Lockers 26

Clocks 1

Beds 2 tier 3

Beds 3 tier 18

Pillows 120

Pillow slips

Mattresses 60

Sheets

Blankets

Mirrors 1

Room XXXVI Ministry of National Assistance

10/1/66

Desks 1

Chairs 1

Cabinets 1

Trays ash

Trays Desk 1

Bins 1

Lockers 1

Clocks -

Beds 2 tier 1

Pillows 4

Pillow slips

Mattresses 2

Sheets 4

Blankets 6

Mirrors 1

Room XXXXV Male Dorm

10/1/66

Lockers 30

Clocks 1

Beds 2 tier 2

Beds 3 tier 16

Pillows 104

Pillow Slips

Mattresses 52

Sheets

Blankets

Mirrirs 1 (contemporary misspelling)

Room XXXXVI

10/1/66

Lockers 30

Clocks 1

Beds 2 tier 2

Beds 3 tier 16

Pillows 104

Pillow slips

Mattresses 52

Sheets

Blankets

Mirrors 1

Room XXXXVII

10/1/66

Lockers 28

Clocks 1

Beds 2 tier 7

Beds 3 tier 12

Pillows 100

Pillow slips

Mattresses 50

Sheets

Blankets

Mirrors 1

Room XXXXVIII Male Dorm

10/1/66

Lockers 29

Clocks 1

Beds 2 tier 2

Beds 3 tier 16

Pillows 104

Pillow Slips

Mattresses 52

Sheets

Blankets

Mirrors 1

Room LXVII Conference

11/1/66

Desks 2

Chairs 31

Tables small 4

Clocks 1

Trays ash 6

Bins 2

Tables conference 2

Easel 2

Blackboard 2

Room LXXVI D/Principal Officer

11/1/66

Desks 1

Chairs 1

Tables small

Locker 1

Clock 1

Trays ash

Trays desk 1

Bins 1

Beds single 1

Pillows 2

Pillow slips

Mattresses 1

Sheets

Blankets

Mirror 1

TAPE RELAY CENTRE OUTGOING CIRCUIT OPERATORS

- 1 Take the next tape from the RED blocks on the rack (Priority messages). If no tapes are in RED blocks take the next tape from a BLACK block (Routine and Deferred messages). Tapes for high precedence messages will be handed to you by the Supervisor.
- 2 Look at the called station routing indicators on the tape and decide from your outgoing circuit labels which circuit or circuits will be used to clear the message.
- 3 If you are sending it over only one circuit, take the next Channel Serial Number Tape from the appropriate hook. Depress and release the auto transmitter stop lever, open the auto head gate and carefully fit the Channel Serial Number Tape on to the auto head. Close the auto head gate and depress and release the stop lever. When the Channel Serial Number tape is finished, file it on the storage hook. Depress the auto transmitter stop key and gently push the leading end of the message tape under the auto head gate and release the stop lever. Enter the Station Serial Number of the message, the Time of Despatch, and your initials on the Channel Serial Number Check Sheet, using the blue pencil provided.
- 4 If you can clear to more than one station over separate circuits, take the next Channel Serial Number tape for one of these circuits and send it as detailed in paragraph 3. Repeat the procedure for each circuit over which you are going to send the message using a different Channel Serial Number tape for each circuit. Insert the tape in the auto transmitter of any of the circuits concerned. Throw the lower key of that circuit to "Broadcast Input". Throw the upper keys for all the circuits concerned to "Broadcast" and send the tape. Enter the Station Serial Number of the message, the Time of Despatch, and your initials on the Channel Serial Number Check Sheet for each circuit concerned.
- 5 When a tape has been sent, tick with blue pencil each station routing indicator to which you have cleared it. If no other stations remain, place it in the "FILE" part of the tape rack. If there are still some stations to be dealt with by other operators, place the tape in the "TRANSIT" part of the tape rack, using RED blocks if a Priority message, BLACK if Routine or Deferred.

JOB NUMBER 97/01996

DATE TAKEN 23/10/97 PHOTOGRAPHER APB
ADDRESS REGIONAL GOVERNMENT HEADQUARTERS
BROOKLANDS AVENUE

CAMBRIDGE

NEGS TAKEN 29

BB98/01033	WAR ROOM,1953, VIEW FROM NORTH EAST, EXTERIOR.	B&W
BB98/01034	REGIONAL SEAT OF GOVERNMENT 4, EXTERIOR, VIEW FROM SOUTH EAST	B&W
BB98/01035	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM,GROUND FLOOR,ROOM 51 AIR CONDITIONING PLANT,VIEW FROM SOUTH WEST	B&W
BB98/01036	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM,GROUND FLOOR,ROOM 51 AIR CONDITIONING PLANT,VIEW FROM NORTH WEST	B&W
BB98/01037	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM,GROUND FLOOR,ROOM 51 AIR CONDITIONING PLANT, VIEW FROM NORTH WEST	B&W
BB98/01038	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR,ROOM 12,MALE LAVATORIES, VIEW FROM WEST	B&W
BB98/01039	REGIONAL SEAT OF GOVERNMENT 4,WAR ROOM,GROUND FLOOR, ROOM 58, WARNING BROADCAST SPEAKER,VIEW FROM NORTH WEST	B&W
BB98/01040	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM,GROUND FLOOR,ROOM 56, TELEPRINTER & TAPE RELAY CENTRE.VIEW FROM SOUTH WEST	B&W
BB98/01041	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM,GROUND FLOOR, TELEPRINTER & TAPE RELAY CENTRE. VIEW FROM SOUTH WEST. DETAIL.	B&W
BB98/01042	REGIONAL SEAT OF GOVERNMENT 4,WAR ROOM,GROUND FLOOR,ROOM 59, FORMER MAP ROOM, VIEW FROM NORTH WEST	B&W
BB98/01043	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM, NORTH STAIR WELL & WATER TANK, VIEW FROM SOUTH	B&W
BB98/01044	REGIONAL SEAT OF GOVERNMENT, WAR ROOM, FIRST FLOOR,ROOM 67, (CONFERENCE ROOM,VIEW FROM NORTH	B&W
BB98/01045	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR, C PLANT, STAND BY GENERATOR AND AIR CONDITIONING PLANT. VIEW FROM NORTH WEST	B&W
BB98/01046	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR,C PLANT, AIR CONDITIONING SYSTEM. VIEW FROM SOUTH EAST	B&W
BB98/01047	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR, C PLANT, AIR CONDITIONING SYSTEM. VIEW FROM SOUTH EAST. DETAIL.	B&W
BB98/01048	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR, PLANT ROOM, E PLANT,TORNADO TYPE FAN. VIEW FROM NORTH WEST	B&W
BB98/01049	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR, E PLANT, FILTER BANK,VIEW FROM NORTH EAST	B&W
BB98/01050	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR, ROOM 12, BBC STUDIO,VIEW FROM NORTH.	B&W
BB98/01051	REGIONAL SEAT OF GOVERNMENT 4, FIRST FLOOR FEMALE LAVATORIES VIEW FROM NORTH WEST	B&W
BB98/01052	REGIONAL SEAT OF GOVERNMENT 4, FIRST FLOOR FEMALE LAVATORIES (SHOWER) VIEW FROM WEST.	B&W
BB98/01053	REGIONAL SEAT OF GOVERNMENT 4,FIRST FLOOR, ROOM 28, KITCHEN, VIEW FROM SOUTH WEST.	B&W
BB98/01054	REGIONAL SEAT OF GOVERNMENT 4,GROUND FLOOR,ROOM 28, TEA BAR VIEW FROM SOUTH EAST	B&W
BB98/01055	REGIONAL SEAT OF GOVERNMENT 4, FIRST FLOOR CORRIDOR I, VIEW FROM WEST	B&W
BB98/01056	REGIONAL SEAT OF GOVERNMENT 4,FIRST FLOOR, ROOM 38, GOVERNMENT DEPARTMENTS,VIEW FROM SOUTH.	B&W
BB98/01057	REGIONAL SEAT OF GOVERNMENT 4,FIRST FLOOR, ROOM 19,MOD ARMED SERVICES,VIEW FROM NORTH WEST	B&W

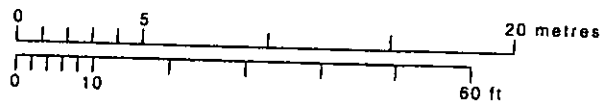
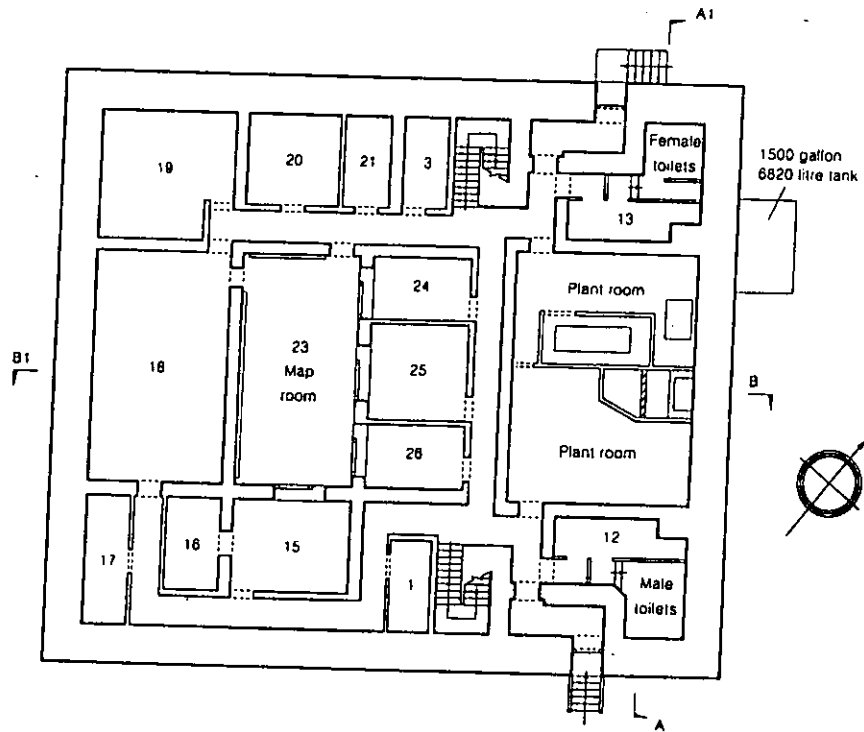
BB98/01058	REGIONAL SEAT OF GOVERNMENT 4, FIRST FLOOR MALE DORMITORY ROOM 48, VIEW FROM SOUTH	B&W
BB98/01059	REGIONAL SEAT OF GOVERNMENT 4, EXTERIOR VIEW FROM SOUTH EAST	B&W
BB98/01060	REGIONAL SEAT OF GOVERNMENT 4, WAR ROOM, EXTERIOR VIEW FROM NORTH	B&W
BB98/01061	REGIONAL SEAT OF GOVERNMENT 4, EXTERIOR VIEW FROM SOUTH EAST	B&W

REGIONAL SEAT OF GOVERNMENT 4 CAMBRIDGE
CROWN BUILDING, BROOKLANDS AVENUE,
CAMBRIDGE,
CAMBRIDGESHIRE

NGR: TL 455 565
NBR No: 96178

WAR ROOM (1952)

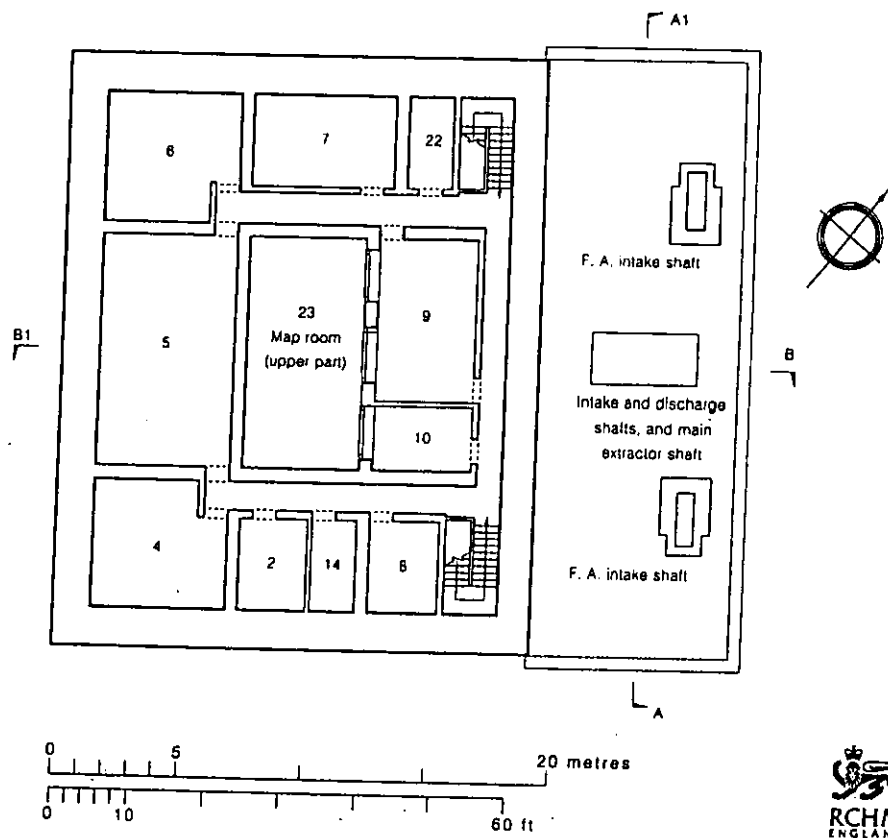
PLAN OF LOWER FLOOR



REGIONAL SEAT OF GOVERNMENT 4 CAMBRIDGE
CROWN BUILDING, BROOKLANDS AVENUE,
CAMBRIDGE,
CAMBRIDGESHIRE
WAR ROOM (1952)

NGR: TL 455 565
NBR No: 96176

PLAN OF UPPER FLOOR

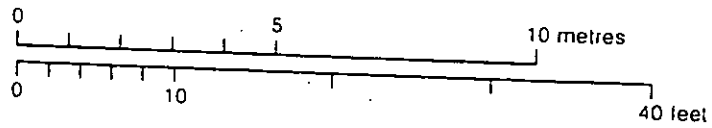
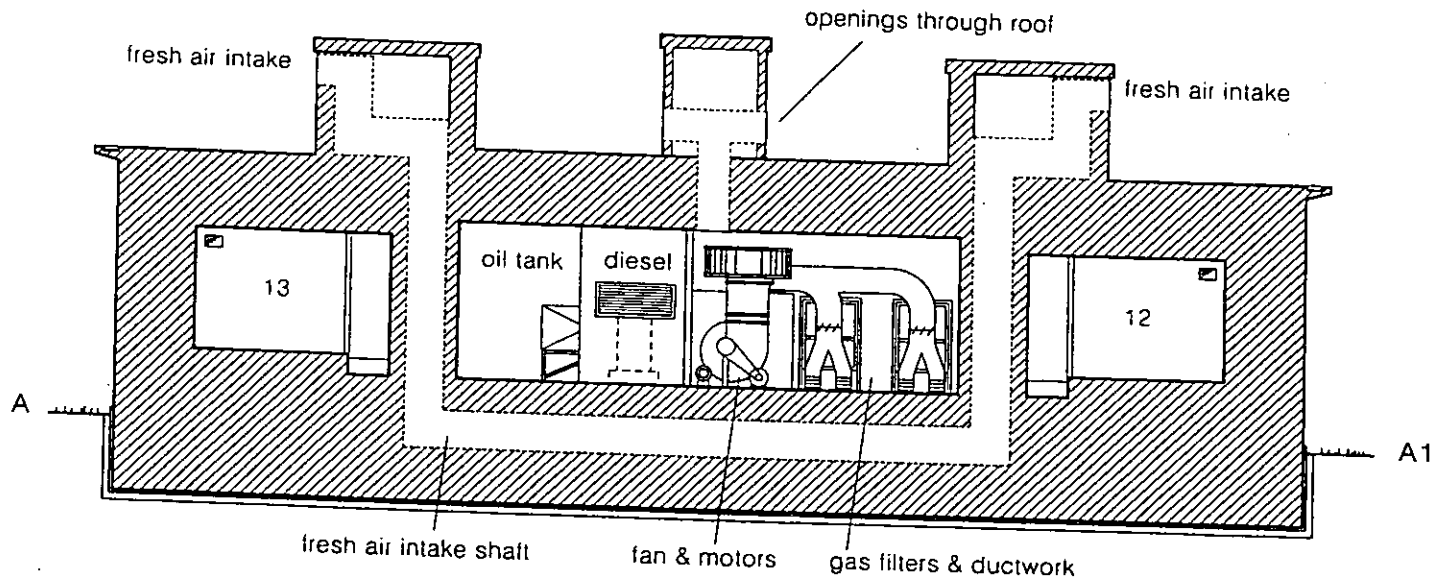


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CROWN BUILDING, BROOKLANDS AVENUE,
CAMBRIDGE,
CAMBRIDGESHIRE

NGR: TL 455 565
NBR No: 96176

WAR ROOM (1952)

SECTION A-A1

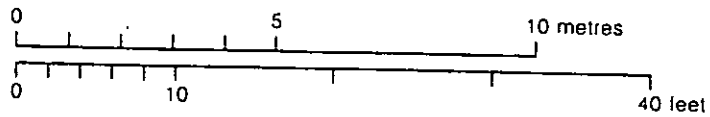
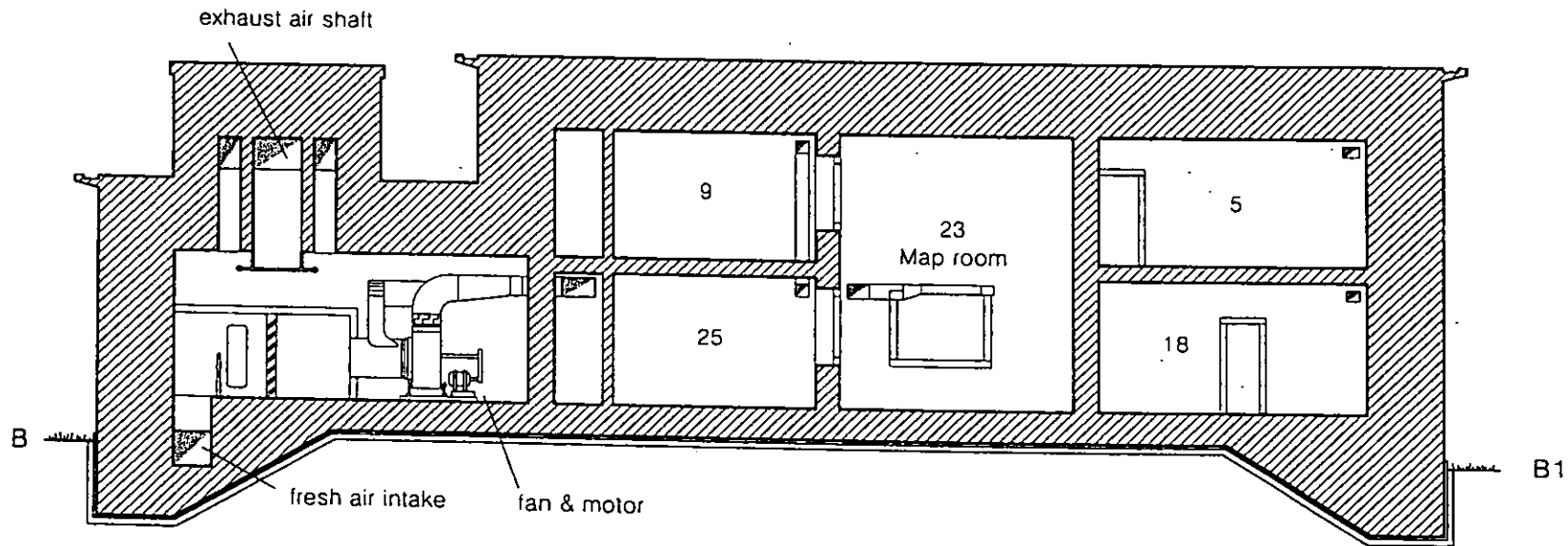


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CAMBRIDGE,
CAMBRIDGESHIRE

NGR: TL 455 565
NBR No: 96176

WAR ROOM (1952)

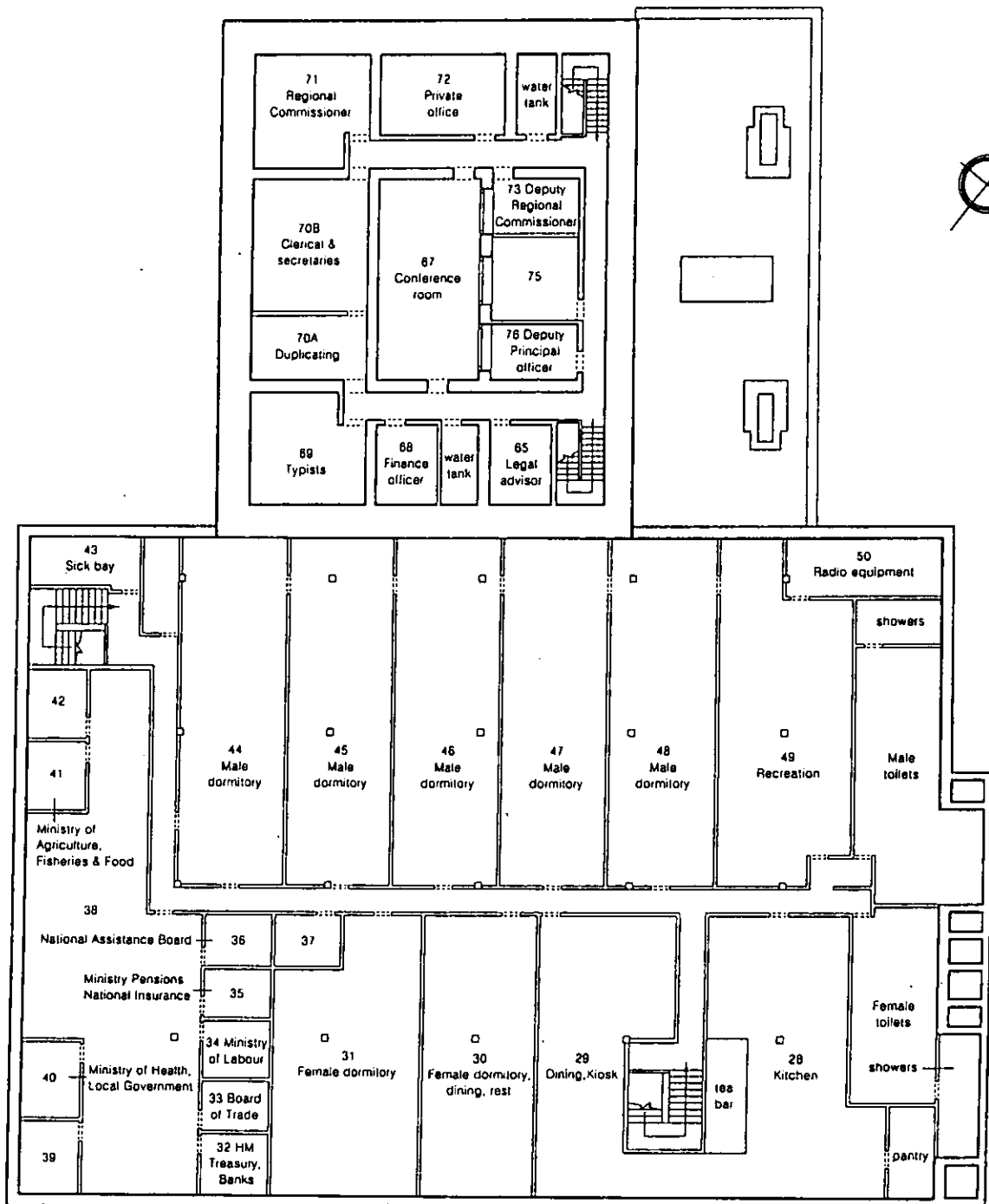
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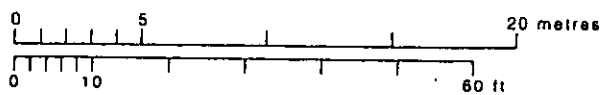
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 CROWN BUILDING, BROOKLANDS AVENUE,
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 CAMBRIDGESHIRE

NGR: TL 455 585
 NBR No: 86176

OLD BUILDING



NEW BUILDING

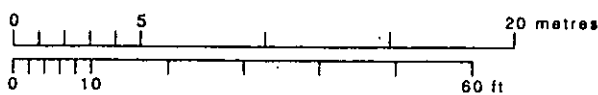
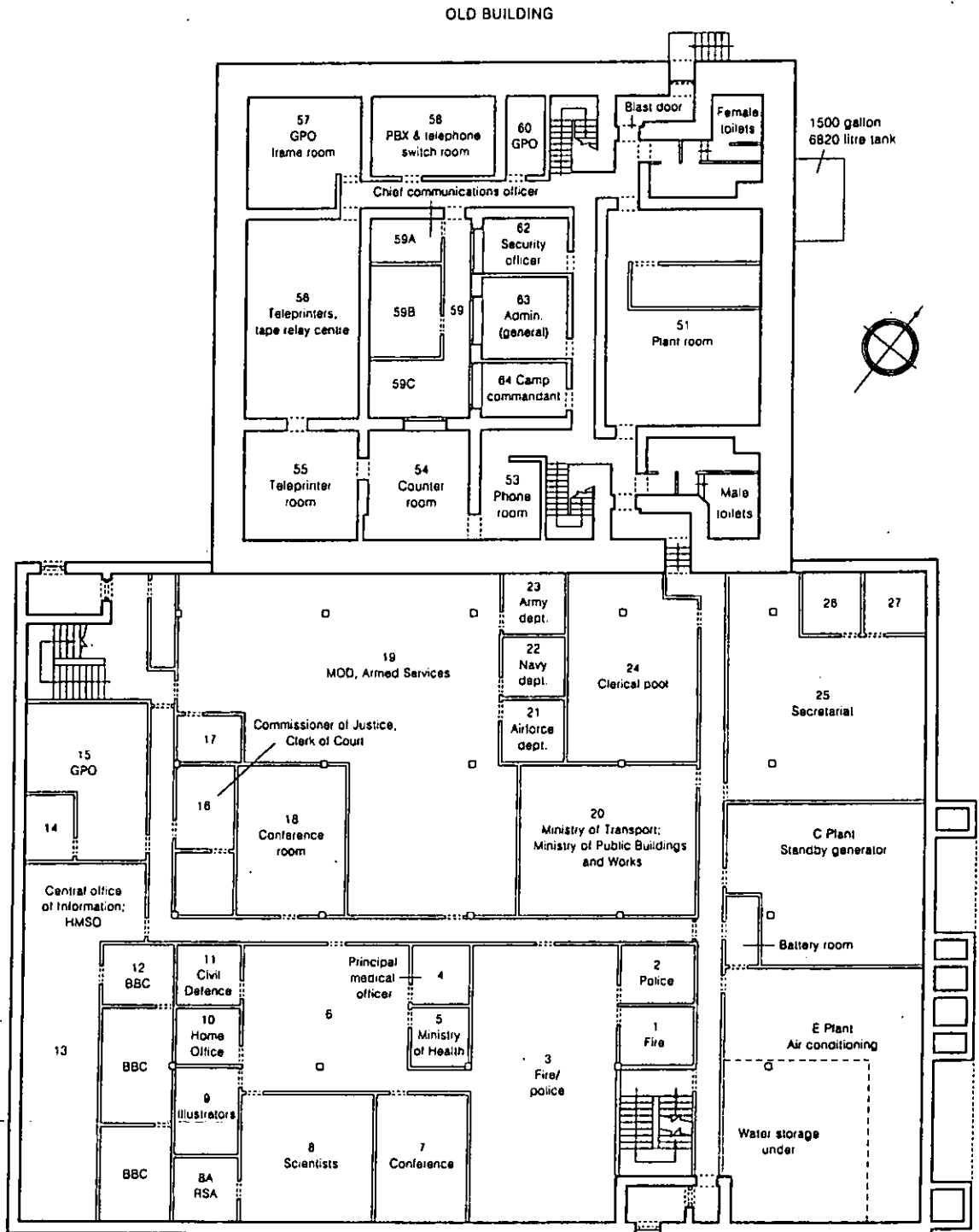


PLAN OF UPPER FLOOR



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PLAN OF LOWER FLOOR





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