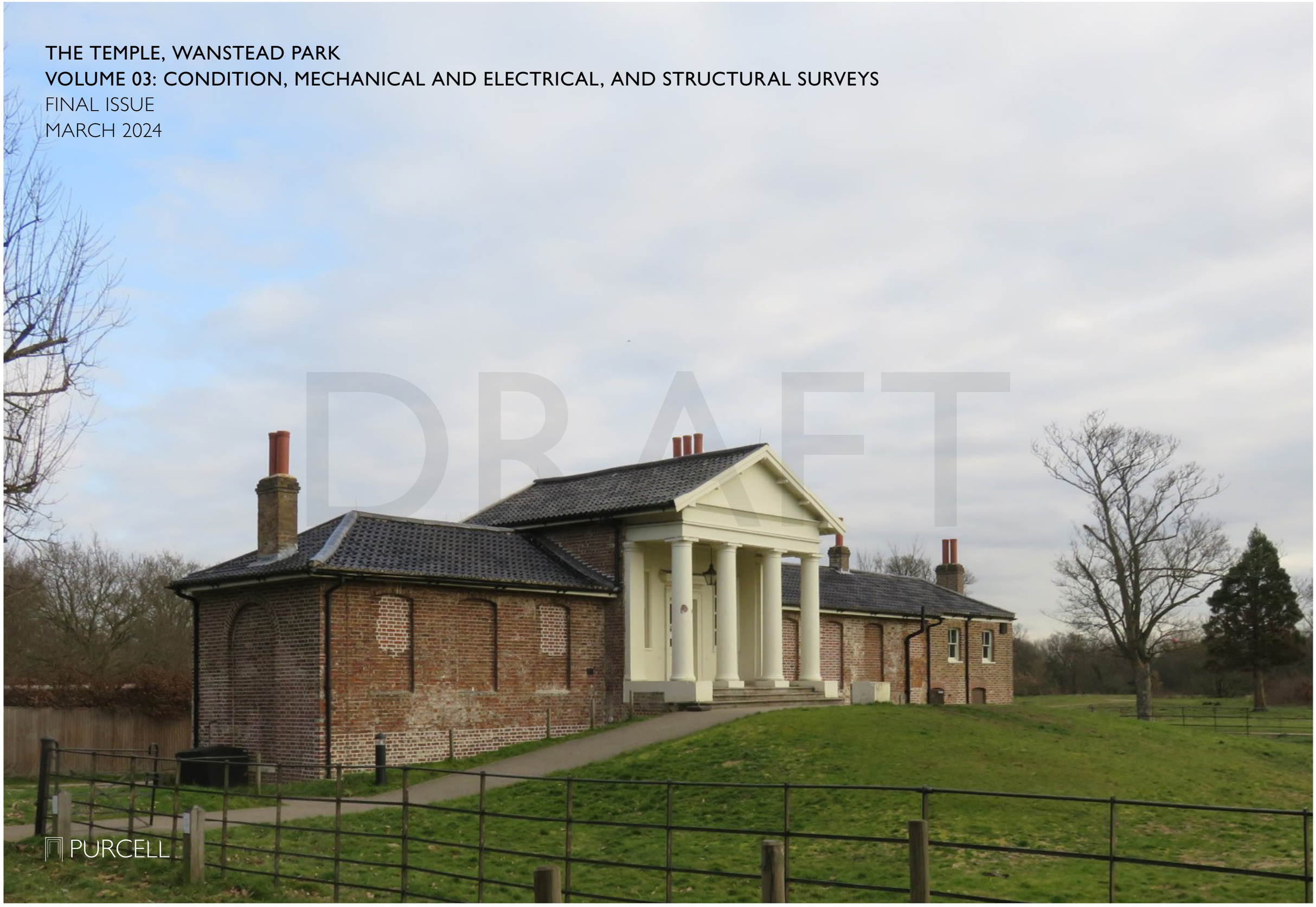
THE TEMPLE, WANSTEAD PARK
VOLUME 03: CONDITION, MECHANICAL AND ELECTRICAL, AND STRUCTURAL SURVEYS

FINAL ISSUE

MARCH 2024



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THE TEMPLE, WANSTEAD PARK: CONDITION, MECHANICAL AND ELECTRICAL, AND STRUCTURAL SURVEYS

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CONDITION SURVEY
INTRODUCTION

This condition survey was conducted on the 15th of February 2023 and has been prepared for the City of London Corporation (City Corporation) in association with the preparation of a Conservation Management Plan (CMP) as well as the Management and Maintenance Plan (MMP) for The Temple in Wanstead Park on the most southern part of Epping Forest.

The condition survey is to be the primary tool by which the maintenance, repair and enhancement of the site are planned and budgeted for The Temple at Wanstead Park. The survey will help to inform decisions about the care and maintenance of the site's elements in the short, medium and long term, as well as assisting in effective prioritising, planning and funding decisions.

The last condition survey for The Temple was undertaken in January 2022 and established a generally fair condition of the building. This updated condition survey and accompanying MMP and CMP are to continue the upkeep of the building as well as describe any ongoing issues.

In order to understand the specific future management and maintenance requirements, the above works have been developed and undertaken in consultation with The Temple Management and the full design team consisting of:

- Heritage Consultant – Purcell
- Senior Architectural Technician – Purcell
- Part II Architectural Assistant – Purcell
- Structural Engineer – Stand Engineers
- Services Engineer – Qoda Consulting.
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The condition survey has been developed by Purcell with the input of the Design Team with a good understanding of the building and following the development of the Conservation Management Plan for The Temple.

This document should be read in conjunction with:

- The Management & Maintenance plan (Purcell)
- The Conservation Management Plan (Purcell)
- Structural Engineers Report (Stand Engineers)
- Services Report (Qoda Consulting).

SUMMARY OF KEY FINDINGS

All windows and doors would benefit from an overhaul. The east and west elevations are generally in good condition, with sporadic instances of receding mortar where repairs were carried out using hard mortar. Previous external works have been conducted on the brickwork, resulting in visible variations in repointing techniques across the elevations, characterized by large patches of repointing. The returns of bay 3 exhibit signs of deterioration, potentially due to limited accessibility. The verge tiles lack mortar and require complete repointing. The portico on the west elevation requires attention due to cracked paint that has peeled off. The lower ground floor is in decent condition but shows multiple cracks on the walls and ceiling, indicating a need for repainting. The electrical storage room is in the poorest state, showing salt damage at the base of the wall. Conversely, the upper floor is in better shape, with redecoration being the primary concern. Trip hazards are posed by vinyl flooring in service areas, and an upgrade is needed for the kitchen as the oven is no longer functional. It has been observed that the lathe plaster ceilings require monitoring due to areas of deterioration, particularly evident in the crumbling key on the reverse side. Certain areas have been identified as necessitating removal and subsequent replastering.

The immediate surroundings of the building are in fair condition. On the eastern side of the building, there is a segment of brick paving that has become overgrown and requires clearing and repointing. The public restrooms accessible from outside the building are due for a fresh coat of paint and minor repairs. Overall, the building is in fair condition.

SUMMARY OF ACTIONS THAT REQUIRE IMMEDIATE ATTENTION

Condition Survey

Within the Condition Survey there are two items which are noted as requiring immediate attention.

- In LG01 (office) the left cupboard on the north wall has evidence internally of damp and salt damage. Ventilation to this cupboard should be provided to allow the interior of the cupboard to dry out.

- In LG03 (stair) there is one loose winder which should be refixed or replaced.

Services Survey

In the Services Survey (by QODA, see p.51) there is one high risk item which should be addressed immediately.

- The kitchen extract is not functioning and should be repaired or replaced.

CONDITION SURVEY
DESCRIPTION

The Temple is situated in the south-east of Wanstead Park in the London Borough of Redbridge. Immediately south of the building is an area known as The Plain, historically known as 'The Park', beyond which lie Perch Pond and Heronry Pond. The site is bounded to the north by an area of woodland known as The Grove. A path running east to west from The Temple leads to the ornamental waters and another eighteenth century garden structure known as The Grotto.

The Temple is a two-storey building, constructed circa 1760-2 from masonry walls with a hipped and pitched roofs covered in black glazed pantiles.

The front elevation is dominated by a Doric portico, painted white and accessed by a shallow flight of stone steps. Brick wings extend north and south, either side of the portico and the front façades of the wings have large blind windows. The southern wing extends further than the north, with an additional bay and a further three bay mid-nineteenth century extension. There are modern metal and timber doors on the west (front) and south elevations of the extension, which provide access to the public toilets at lower-ground floor level.

The rear elevation of The Temple is characterised by a range of fenestration of different proportions including 21 timber windows and 3 timber doors with glazing panels. Above the central door is a 8-light, timber-framed sash window. Within the recess formed by an architrave and the prominent eaves of the central cell is an historic bell-pull.

The north elevation of the building features a large blind archway spanning both storeys. The south elevation is of blank brick with a modern metal door which provide access to the male public toilet at lower-ground floor level.

Brick chimney stacks are situated at the gable ends of the structure, and what would have been the gable-end of the south wing prior to the nineteenth-century extension. A large brick chimney also rises from the south side of the portico. All rainwater goods are of cast-iron.

EXTERNALS

East Elevation

The east elevation is to the rear of the building adjacent to the car parking area. This is the main staff entrance, and the public would not typically enter from this angle. The façade is split into 4 distinct 'bays' (labelled bay 1 – 4 from left to right) where the brickwork steps out or in. This elevation contains 21 timber windows and 3 timber doors with glazing panels, as well as 2 downpipes, a historic bell and timber fascias.

The fascia boards, rainwater pipes and gutters are in good condition. The bell on bay 3 is in good condition but would benefit from an overhaul in the future.

Overall, the brickwork is in fair condition with isolated instances of receding mortar and brick. On the east elevation specifically, it was noted that there were around 5 holes where previous fixing had been removed and approximately 20. bricks needing consolidation due to weathering.

The condition of the mortar is fair but previously there has been numerous external works packages to the brickwork and the different approaches are visible on the elevations with large patches of repointing in various techniques. In many areas the brickwork is starting to recede due to age and exposure and in certain places receding mortar and brickwork is due to previous repairs using too hard a mortar. We have split the repointing work into low and high level due to access needs. This elevation needs around 5.5m² repointing at low level and 4m² at high level. Mortar to the roof tile verge is in good condition along this elevation with only approximately 4 instances where repointing is needed. The roof returns either side of bay 3 are in bad condition. Mortar to the roof verge tile is missing or damaged along both lengths and needs to be wholly repointed.

The external windows and doors are in a fair condition. However, to prevent damage to the fabric of the building in the future, all external windows and doors should be overhauled. Specifically on this elevation there is one damaged tile cill that will need replacing, one timber cill where flaking paint has exposed the timber beneath and will need repainting urgently to protect the timber, as well as 2 timber cills damaged beyond repair that will need to be replaced.

Figure 1 East Elevation

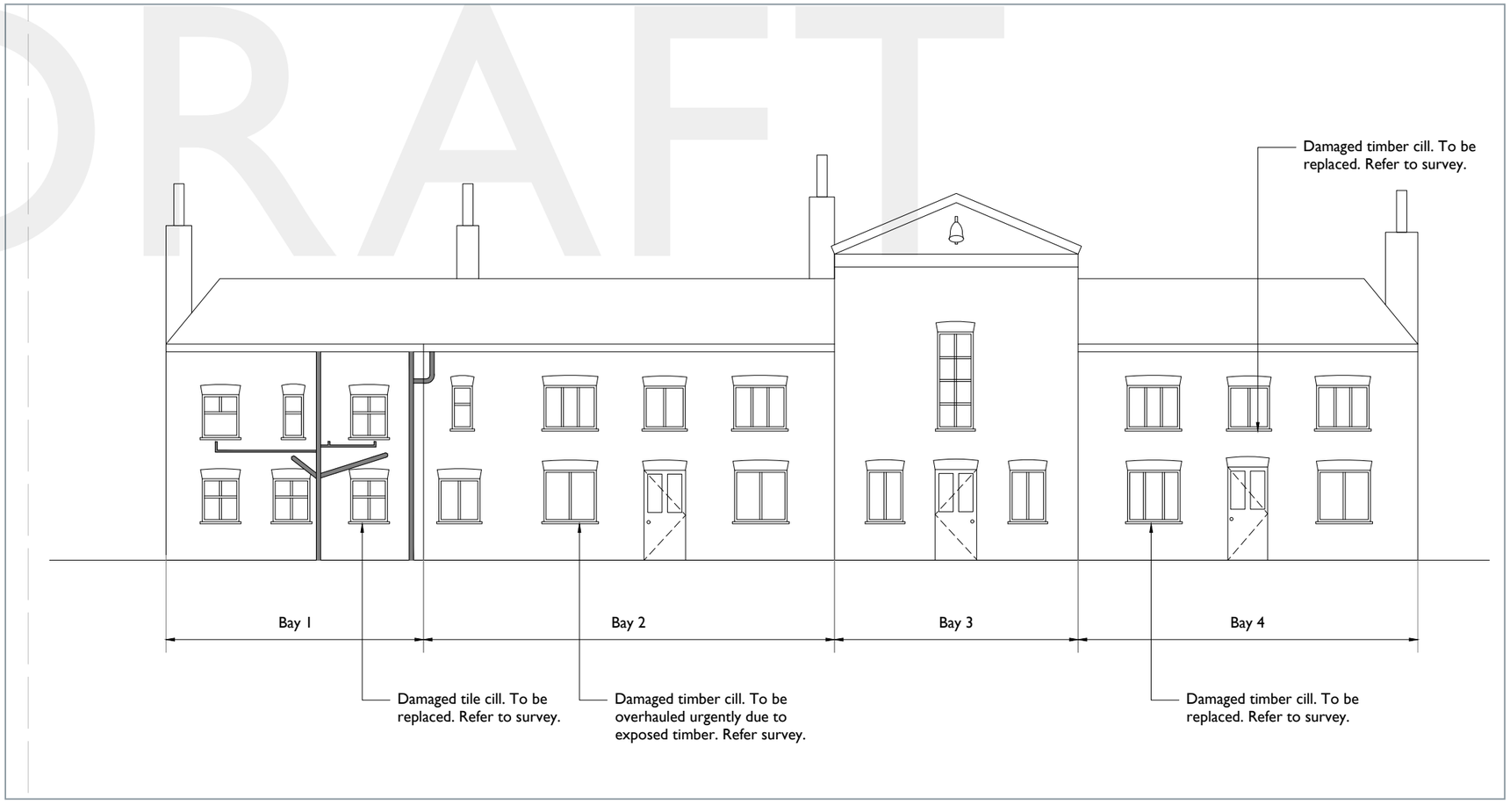

Figure 2 East Elevation

West Elevation

The west elevation is to the front of the building facing out towards Wanstead Park and is the main visitor entrance. The façade is split into 4 distinct 'bays' (labelled bay 1 – 4 from left to right) where the brickwork steps out or in. This elevation contains 2 timber windows and 1 portico with a timber door and additional timber windows, as well as 6 brick recesses, 4 columns and timber fascia boards.

The fascia boards, rainwater pipes and gutters are in good condition. The left hand side rain water pipe on bay 1 is noticeably loose at the lower section and needs to be refixed.

Overall, the brickwork is in fair condition with isolated instances of receding mortar and brick. On the west elevation specifically, approximately 30no. bricks needing consolidation due to weathering and approximately 10 bricks are in poor condition and will need to be cut out and replaced. The condition of the mortar is fair but the various repointing techniques are evident as on the other elevations. This elevation needs around 5m² repointing at low level and 0.5m² at high level. Mortar to the roof tile verge is in good condition along this elevation with only approximately 17 instances where repointing is needed.

The external windows and doors are in a fair condition, however, as on the east elevation, to prevent damage to the fabric of the building in the future, all external windows and doors should be overhauled.

This elevation contains the Doric portico, painted white and accessed by a shallow flight of stone steps. Access to the upper-ground floor of the central cell is provided by a timber panelled and glazed door with a timber hood over and 8-light sash window, timber framed sash windows on either side. The high level render on the outside of the portico is in good condition. However, the finish to the interior of the Portico is flaking and cracking. This needs to be removed, prepared and repainted to prevent exposed timber. It is assumed that the finish to the 4 columns is inappropriate as the paint has blown and cracked in multiple places. The columns need to be striped back to bare stone, prepared, and repainted with an appropriate finish.

Figure 3 West Elevation

Figure 4 West Elevation

North Elevation

This elevation contains a recessed brick arch. The brickwork and mortar on this façade is in good condition with only 1m² of brick consolidated needed.

Mortar to the roof tile verge is in good condition as is the fascia board, gutter and rainwater pipe.

South Elevation

This elevation contains a single metal door that leads to the public men's WC. The brickwork and mortar on this façade is in good condition with only 0.5m² of low level repointing, 5 bricks consolidated and 5 bricks replaced.

Mortar to the roof tile verge is in bad condition along this whole elevation. The length is around 5m in total. In addition to the high level work at the roof verge, the flaunching to the chimney is flaking away. This needs to be removed and replaced to match existing

GROUNDS

The vegetation around the building is in good condition. To the east elevation there is a section of brick paving 55m² that is overgrown and covered in vegetation. This area needs to be treated with weed killer and all vegetation carefully removed. The bricks will then need repointing. The north elevation is adjacent to a grassed area. The 5m length at the base of the brickwork needs to be trimmed back and maintained. This is also the case on the west elevation with 17.5m on bay 1 and bay 3. On the west elevation bay 4 and the south elevation the brickwork is met with the path that leads to the public WC doors. There is vegetation growth that also needs to be treated with weed killer and removed along 11m.

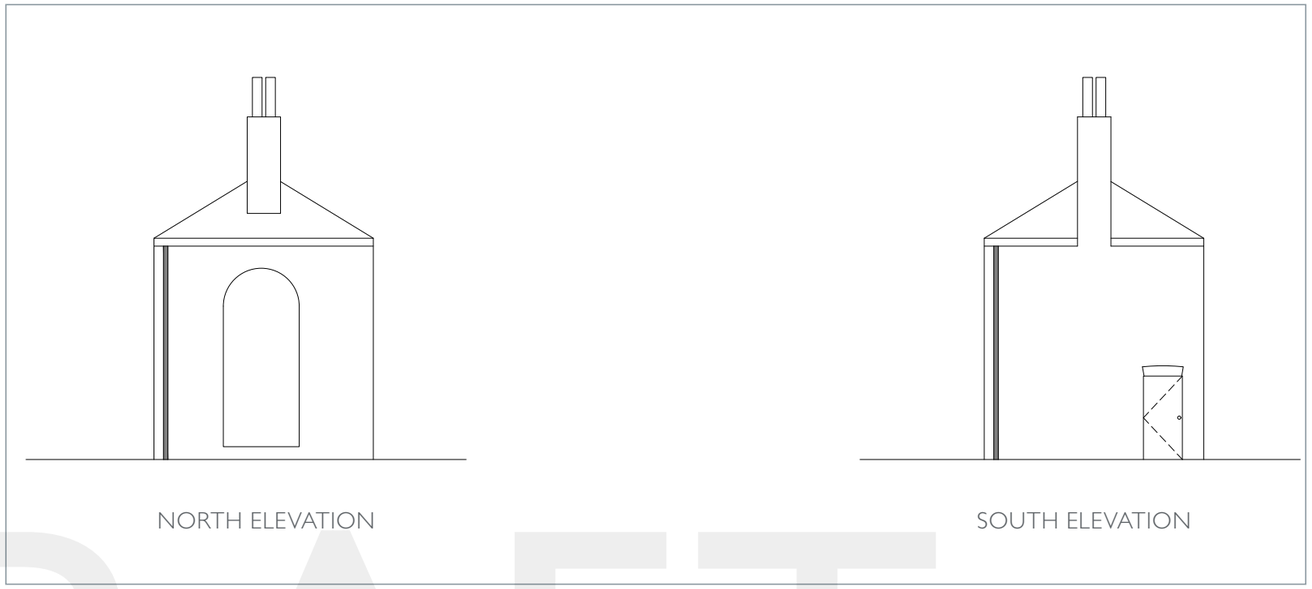

Figure 7 North and South Elevations

Figure 5 North Elevation

Figure 6 South Elevation

INTERNAL LOWER GROUND

LG01 (Office)

LG01 is the staff office accessed via the east elevation. The ceiling is lath and plaster repainted lining paper in a generally fair condition. There is evidence of previous moisture adjacent to the east elevation (external wall) but appears to be dry. The 2 strip light fixings are causing cracks to the ceiling. These need to be removed, plaster made good, redecorated and refixed.

The walls are painted plaster in generally good condition. There is localised cracking and evidence of salt damage to the north end of the east and west walls (this continues into the left hand side cupboard on the north wall). The cupboards on the north wall are in generally good condition. The right-hand side cupboard contains the alarm system and the door is damaged. The interior decoration is flaking and the plaster is failing. The chimney between the cupboards is missing a grill but is otherwise in good condition.

LG02 (Store)

LG01 is a cleaning store in generally good condition with localised cracking to the walls.

LG03 (Stairs)

LG03 is the staircase to the upper ground floor level. The walls are in good condition other than a large crack to the plaster to the top of the door as well as damage to the plaster where the under-stair cupboard door has hit the wall. Cracking to the decorative finish is evident on the upper level, specifically to the corners of the walls.

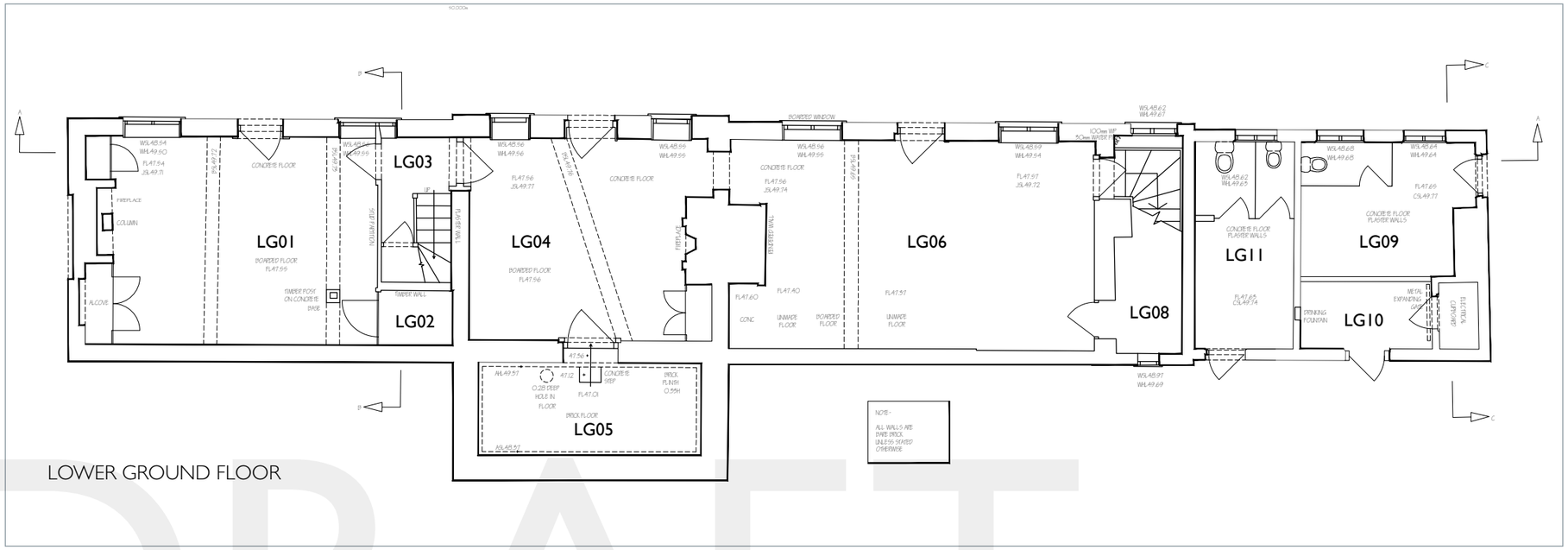

Figure 11 Lower Ground Floor Plan

Figure 8 LG01 (Office)

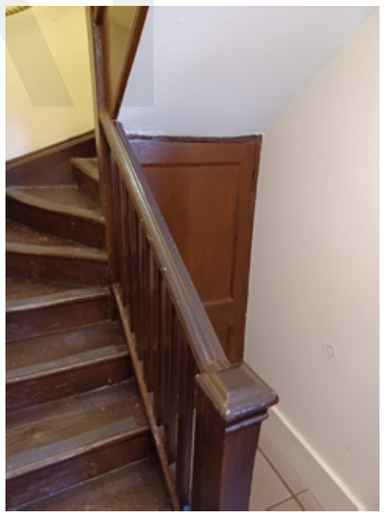

Figure 10 LG03 (Stairs)

Figure 9 LG02 (Store)

CONDITION SURVEY FINDINGS

LG04 (Display room)
LG04 is one of The Temples display rooms. The ceiling is lath and lime plaster with painted lining paper, however the plaster is cracking in places. The cupboard to the south wall is damaged and cannot lock or close properly. The stone tile floor is in good condition throughout.

LG05 (Plant room)
No access.

LG06 (Display room)
LG06 is another display room and compared to LG04 is in good condition overall. The chimney was noted to be blocked with no vent.

LG07 (Stairs)
LG07 is the southern staircase and is in good condition with minor issues of flaking to the upper landing walls and around the window on the west elevation. The stairs themselves are sound and the ceiling finishes appear in good condition.

LG08 (Store)
This electrical storeroom has evidence of salt damage at the bottom of the south wall. The floor is concrete but is in good condition.

LG09 (Men's WC), LG10 (Accessible WC) & LG11 (Women's WC)
The public WCs are in fair condition with worn finishes and visually would benefit from a deep clean to bring the floors back to a good visual condition.

Figure 12 LG04 (Display Room)

Figure 13 LG06 (Display Room)

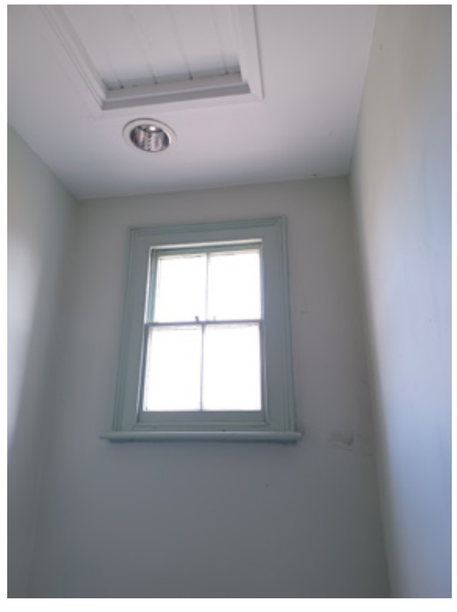

Figure 14 LG07 (Stairs)

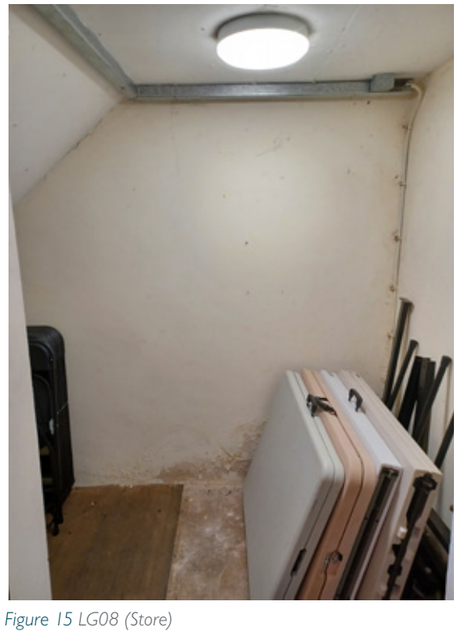

Figure 15 LG08 (Store)

Figure 16 LG09 (Men's WC)

Figure 17 LG011 (Women's WC)

INTERNAL UPPER GROUND

UG01 (Meeting room)

UG01 is the meeting room on the upper ground floor that is not always accessible to the public but is sometimes used for events. This room is in good condition with a couple of loose floor boards that need refixing. However, they are not a hazard. There is evidence of cracking where the new partition meets the existing wall on the south side of the room. This could be due to the difference in materials and their structural movement. The crack should be filled to match existing (refer to schedule) and then monitored for further cracking.

UG02 (Shop)

This room is the main entrance for the public with doors that lead out into the portico on the west wall. There are issues in this room with movement; a large gap between the window surround and panelling on the east wall suggests movement and should be investigated. However, this cracking is not replicated on the exterior façade.

The walls are showing cracking and flaking to finishes in multiple locations. There are also small 3mm cracks on the north and east walls. Joints are opening up around the fireplace on the south wall as well as on the west wall panelling. The finish to this timber panelling is in bad condition and needs to be overhauled. There are 4 timber, 6 panel doors into this room, all of which have evidence of movement at the panel joints.

UG03 (Children's room)

This is another display room that focuses on children's interaction with the building's history. This room is in good condition with timber floorboards, painted plaster walls and painted plaster ceilings. There is a hole in the west wall assumed to be a previous redundant fixing.

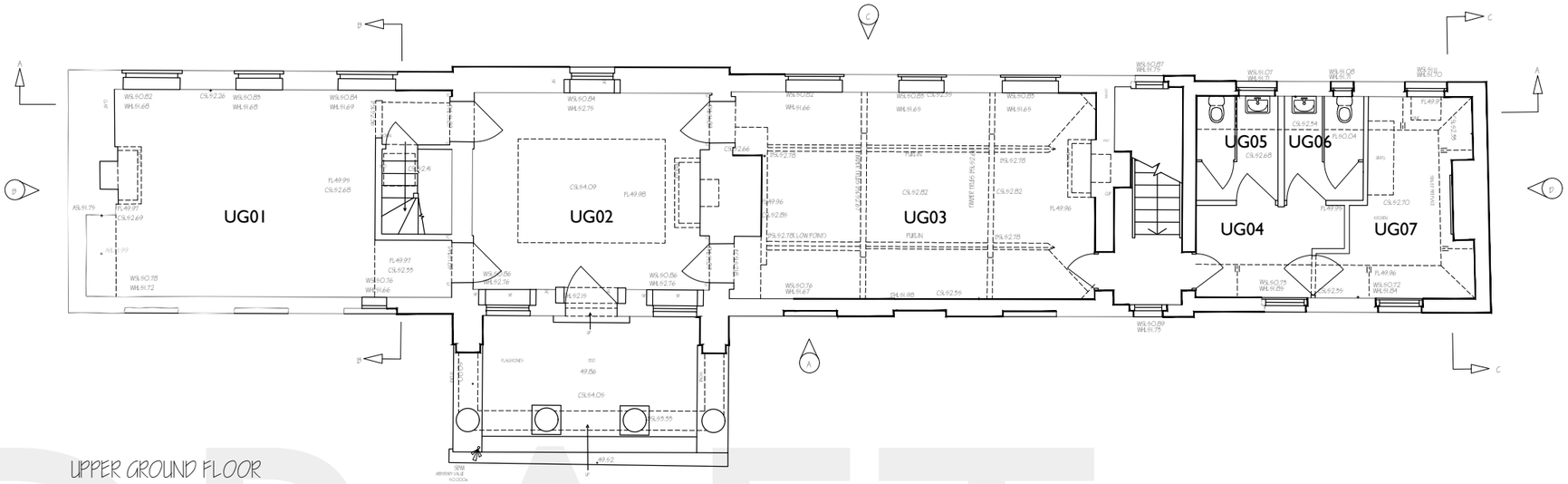

Figure 21 Upper Ground Floor Plan

Figure 18 UG01 (Meeting Room)

Figure 19 UG02 (Shop)

Figure 20 UG03 (Children's Room)

UG04 (Lobby)

This lobby has localised cracking to painted wall finishes. The curved timber cupboard in the corner is used as a cleaning store and is in good condition. The vinyl floor is coming away at the edges and welded joints. It is not yet a trip hazard, though it needs to be addressed before more damage is done.

UG05 (Women's WC) and UG06 (Men's WC)

These are the staff toilets and are in a similar condition to UG04. The painted plaster wall finishes are marked with slight finish cracking in areas of traffic. The vinyl floor is coming away at the edges and welded joints. It is not yet a trip hazard, though it needs to be addressed before more damage is done or it becomes a health hazard due to increased cleaning difficulty.

UG07 (Kitchen)

The staff kitchen has localised cracking to the painted plaster finishes, though the ceiling is in good condition. As with UG04 the vinyl floor is coming away at the edges and welded joints. It is not yet a trip hazard, though it needs to be addressed before more damage is done or it becomes a health hazard due to increased cleaning difficulty. A staff member present noted the ovens have been isolated and need removing and replacing.

The kitchen cupboards are in good condition. The space is small but functions well.

Figure 22 UG04 (Lobby)

Figure 23 UG05 (Male WCs)

Figure 25 UG07 (Kitchen)

Figure 24 UG06 (Female WCs)

GENERAL NOTES

Building condition survey undertaken from floor level throughout with access granted to most spaces inclusive of internal spaces. The condition survey takes in the existing building fabric and gives suggestions for remedial works for costing purposes. For this reason, the report should be read independently from the proposed scheme.

All structural members are to be reviewed and determined to be fit for purpose by the structural engineer. Any required remedial works relating to the structure to be specified by the structural engineer.

All items relating to the mechanical, electrical and drainage services to be reviewed and determined to be fit for purpose by the services consultants. Any required remedial works relating to the services to be specified by the services consultants.

Priority Ratings:

A = Requires urgent/ immediate attention

B = Recommended within 12 months

C = Recommended within 3 years

D = Desirable

Treatment/ Remedial Notes

Rake out and repoint brickwork: Where indicated and to the quantities given, allow for raking out of existing mortar joints and repointing with new lime mortar, ensuring mortar colour, aggregate and joint treatment match existing original historic pointing.

Cut out and replace brick: Where indicated and to the quantities given, allow for removal of existing defective brick and replacement with brick and mortar to match existing origonal historic brickwork. It should be noted that making good to existing bricks has not been included, instead favouring outright replacement where necessary. Bricks with minor damage to corners/ arrisses have generally been deemed acceptable to retain. Bricks with spalling / blown faces have been deemed to be unacceptable and have been indicated as requiring replacement.

Consolidation of brickwork: Where indicated and to the quantities given, allow for undertaking defrass of existing exposed masonry face to remove all friable material back to a sound, solid base. Consolidate brick with new lime mortar to match existing original historic mortar joints.

Overhaul timber windows and doors:
Where indicated allow for existing timber window to be overhauled in situ. Generally allow for localised removal of existing putty and replacement retaining existing glazing in situ. Paint to be removed as much as possible and frames to be prepared and redecorated throughout. Allow for windows and doors to be eased and adjusted to allow them to fully function as intended. It is assumed that all existing ironmongery is present and can be retained for reuse. Repoint around all frames in lime mortar

General allowances

Overhaul timber windows and doors: Allow for windows and doors inclusive of ironmongery to be eased and adjusted so that they function as intended (open and close). Allow for redecoration throughout

Existing fixtures and fittings: Allow for removal of all redundant fixtures and fittings throughout, inclusive of timber pegs and ventilation grilles. Allow for making good of all open fixing holes by pointing with mortar to match existing adjacent. Any remaining redundant penetrations and fixing holes to be made good by infilling with bricks and pointing to match existing adjacent. It should be noted that in some locations, the position and quantity of cabling is having a detrimental effect on the building fabric and its ability to shed water.

Rainwater goods: Existing rainwater goods typically painted cast iron. These are generally in good condition, with some localised loose items. Allow for condition of existing roof level gutters throughout to be investigated, tested, refixed and sealed.

Ridge Tiles: Ridge tiles are assumed to be embedded and fixed well but are visually uneven

LOWER GROUND FLOOR

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	TOTAL (£)
LG01 (Office)	Ceiling	Lath and lime plaster with painted lining paper. Fair condition generally. Evidence of previous moisture ingress near external wall. Light fixings causing cracks / coming away.	Make good plaster around light fittings and redecorate to match existing.	x2 strip lights	C	£125.00	£250.00
	North Wall	Painted plaster, good condition.	-	-	-		
	East Wall	Painted plaster, generally fair condition. Localised cracking around left hand side window.	Fill crack and redecorated to match existing.	0.25m	D	£25.00	£6.25
		Evidence of salt damage to bottom left hand side corner. Finish coming away.	Remove loose material locally and redecorate to match existing. When removed and prior to decoration, test moisture content of wall.	0.5m²	D	£180.00	£90.00
	South Wall	Painted lath and lime plaster, good condition.	-	-	-		
	West wall	Evidence of salt damage to bottom left hand side corner. Finish coming away.	Remove loose material locally and redecorate to match existing. When removed and prior to decoration, test moisture content of wall.	0.5m²	D	£180.00	£90.00
	Floor	Stone tiles to floor, good condition.	-	-	-		
	Left cupboard (North wall)	Timber framing in good condition. Evidence of damp and salt damage internally (extension of west wall damage).	Remove loose material locally and redecorate to match existing. When removed and prior to decoration, test moisture content of wall.	0.5m²	D	£180.00	£90.00
			Provide ventilation to lower section of cupboard.	1 item	A	£50.00	£50.00
		Localised cracking to wall and soffit finishes internally.	Fill and redecorate to match existing.	1m	D	£25.00	£25.00
	Right cupboard (North wall)	Alarm system location to upper cupboard. Exposed brickwork and timber framing. Failing plaster ceiling.	Make good ceiling and redecorate to match existing.	0.5m²	D	£300.00	£150.00
		Damage to lower MDF door.	Replace door or repair.	1 item	D	£250.00	£250.00
		Flaking decorations to internal walls.	Make good and redecorate to match existing.	0.5m²	D	£25.00	£12.50
	Chimney (North wall)	Chimney flu open.	Add grill to open soffit and make good.	1 item	D	£200.00	£200.00
	Window 1 (left) East wall	Timber shutters sound. Failing putty to window and decorations. Chip in right pane. See general note.	Overhaul window; Refer to notes.	1 Item	B		in elevations
	Door to external (East wall)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Window 2 (right) East wall	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Door to LG03	Painted timber door leaf and frame generally in good condition; Refer to notes.	Refer to notes.	1 Item	C	£250.00	£250.00
LG02 (Store)	Store	Door in good condition. Localised cracking to internal walls.	Fill and redecorated to match existing.	3m	D	£25.00	£75.00

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	TOTAL (£)
LG03 (Stairs)	Cupboard under stairs.	Good condition.	-	-	-		
	Ceiling	Lath and lime plaster with painted lining paper with localised cracking to ceiling.	Fill and redecorate to match existing.	2m	D	£25.00	£50.00
	North wall	Cracks to plaster and missing plaster to top of doorframe. Stair cupboard door damaging wall.	Fill, make good and redecorate.	0.25m²	D	£180.00	$45.00
			Fit door stop.	1 item	D	£35.00	£35.00
	East wall	Good condition.	-	-	-		
	South wall	Cracking to finishes, spercifically to corners.	Fill and redecorate to match existing.	10m	D	£25.00	£250.00
	West wall						£0.00
	Window (East wall)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Stairs	Generally good condition. 1no. loose winder.	Refix or replace winder.	1 item	A	£100.00	£100.00
LG04 (Display room)	Ceiling	Lath and lime plaster with painted lining paper. Live plaster with cracking.	Localised removal of lime plaster and laths and replace with new to match existing. Redecorate to match existing.	3m²	C	£300.00	£900.00
	Walls	Good condition.	-	-	-		
	Floor	Stone tiles to floor, good condition.	-	-	-		
	Door to plant room	Painted timber door leaf and frame generally in good condition; Refer to notes.	Refer to notes.	-	-	£250.00	£250.00
	Cupboard (South wall)	Exposed services. Exposed timber framing and masonry. Fair condition. Damage to right side of upper door.	Repair or replace door to match existing.	1 item	D	£60.00	£60.00
	Door from LG03 (North wall)	Painted timber door leaf and frame generally in good condition; Refer to notes.	Refer to notes.	1 Item	C	£250.00	£250.00
	Window 1 (left) East wall	Cill finish deteriorated. Painted timber casement generally in serviceable condition; Refer to notes.	Fill and redecorate internal cill to match existing; Refer to notes.	1 Item	B	£15.00	£15.00
	Door to external (East wall)	Painted timber door leaf and frame generally in good condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Window 2 (right) East wall	Cill finish deteriorated. Painted timber casement generally in serviceable condition; Refer to notes.	Fill and redecorate internal cill to match existing; Refer to notes.	1 Item	B	£15.00	£15.00
LG05 (Plant room)	Plant room	No access.	-	-	-		

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	TOTAL (£)
LG06 (Display room)	Ceiling	Fair condition.	-	-	-		
	Walls	Good condition.	-	-	-		
	Chimney (North wall)	No chimney vent. Blocked.	Insert vent.	1 item	B	£200.00	£200.00
	Floor	Stone tiles to floor, good condition.	-	-	-		
	Window 1 (left) East wall	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Door from LG04 (North wall)	Painted timber door leaf and frame generally in good condition; Refer to notes.	Refer to notes.	1 Item	C	£250.00	£250.00
	Door to external (East wall)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
	Window 2 (right) East wall	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 Item	C		in elevations
LG07 (Stairs)	Ceiling.	Cracking finishes to upper floor landing.	Redecorate to match existing.	3m	D	£25.00	£75.00
	Ceiling hatch.	Good condition.	-	-	-		
	North wall	Good condition. Void behind service hatch fair condition.	-	-	-		
	East wall	Cracking around upper floor window.	Fill and redecorate to match existing.	3m	D	£25.00	£75.00
	Stairs	Good condition.	-	-	-		
LG08 (Store)	Ceiling	Fair condition.	-	-	-		
	North wall	Electrical board.	-	-	-		
	South Wall	Salt damage to bottom of wall	Remove loose material locally and redecorate to match existing. When removed and prior to decoration, test moisture content of wall.	2m²	D	£180.00	£360.00
	West wall	Cracking and chipped finishes.	Redecorate to match existing.	4m	D	£25.00	£100.00
	Floor	Concrete floor. Fair condition.	-	-	-		
LG09 (Mens WC)	Walls	Cracking to wall finishes.	Redecorate to match existing.	2m	D	£25.00	£50.00
	Ceiling	Evidence of leak to ceiling.	Investigate, make good, prep and redecorate.	0.25m²	C	£180.00	£45.00
LG10 (Accessible WC)	Walls	Finishes worn, fair condition.	Redecorate to match existing.	4m²	D	£25.00	£100.00
	Floor	Finishes worn, fair condition.	Deep clean.	5m²	D	£25.00	£125.00
LG11 (Womens WC)	Walls	Finishes worn, fair condition.	Redecorate to match existing.	4m²	D	£25.00	£100.00
	Floor	Fair condition.	-	-	-		
Lower Ground Floor Cost							**£4,988.75**

UPPER GROUND FLOOR

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
UG01 (Meeting room)	Ceiling	Failing finishes to timber at ridge and missing board in centre. Plaster and paint finishes generally in good condition.	Prepare and redecorate to match existing.	0.5m²	C	£25.00	£12.50
			Replace board, prepare and decorate to match existing	1m	C		£0.00
	Walls	Generally good condition. Cracking to finishes.	Prepare and redecorate to match existing.	4m	D	£25.00	£100.00
	South wall	Plaster failing where new stud attaches.	Remove and replace lime plaster and decorate to match existing.	1m²	D	£180.00	£180.00
	Floor	Timber boarding in fair condtion. 4no. loose floor boards.	Provide new fixings.	4 items	D	£50.00	£200.00
	Window 1, 2 and 3	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	3 Items	C		in elevations
UG02 (Shop)	Ceiling	Good condition.	-	-	-		
	Cornice	Gaps and cracks at movement joints.	Localised repairs to movement joints. Fill and redecorate to match existing.	2m²	D	£180.00	£360.00
	North wall	Cracks 3mm wide in places typically at abutment to timber panelling.	Make good and fill. Redecorate to match existing.	3m	D	£25.00	£75.00
		Cracking and flaking finishes.	Prepare and redecorate to match existing.	5m²	D	£25.00	£125.00
	East wall	Cracks 3mm wide in places typically at abutment to timber panelling.	Make good and fill. Redecorate to match existing.	3m	D	£25.00	£75.00
		Cracking and flacking finishes.	Prepare and redecorate to match existing.	9m²	D	£25.00	£225.00
	Window (East wall)	Large gap between window surround and panelling. Investigate movement. Painted timber casement generally in serviceable condition; Refer to notes.	Make good and fill; Refer to notes.	1 Item	C	£100.00	£100.00
	South wall	Cracking and flaking finishes.	Prepare and redecorate to match existing.	7m²	D	£25.00	£175.00
	Fireplace (South wall)	Joints opening up.	Make good and fill. Redecorate to match existing.	0.5m	D	£25.00	£12.50
	West wall panelling	Gaps to panelling joints and abutment to window.	Make good and fill. Redecorate to match existing.	5m²	D	£25.00	£125.00
	Window 1 (Left) West wall	Painted timber shutters finishes damaged. Painted timber casement generally in serviceable condition; Refer to notes.	Prepare, repair and redecorate to match existing; Refer to notes.	2 items	D	£260.00	£520
	Main external door	See general note.	See general note.	-	-		
	Floors	Timber boarding, fair condition.	-	-	-		
	Doors (x4)	6 panel doors. Movement at panel joints. Painted timber door leaf and frame generally in fair condition; Refer to notes.	Fill gaps, repair and redecorate door and architraves to match existing; Refer to notes.	4 Items	D	£200.00	£800.00
UG03 (Childrens room)	Ceiling	Timber boarding, good condition.	-	-	-		
	West wall	Localised damage, redundant fixing hole.	Fill and recorate to match existing.	1 item	D	£25.00	£50.00
	Floor	Timberboarding in fair condition, some boards uneven.	-	-	-		
	Window 1, 2 and 3	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	3 items	B		in elevations
	Door (south wall)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 item	C	£200.00	£200.00

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
UG04 (Lobby)	Walls	Localised cracking to finishes.	Prepare and redecorate to match existing.	2m	D	£25.00	£50.00
	Ceiling	Good condition.	-	-	-		
	Floor	Coming away at the edges and at welded joints.	Replace floor covering with new sheet vinyl and underlay with coved skirtings.	4m²	D	£95.00	£380.00
	Window (West wall)	Painted timber casement generally in serviceable condition; Refer to notes.	See general note.	1 item	B		in elevations
	Cupboard	Curved clear finished cupboard with curved door, good condition.	-	-	-		
UG05 (Mens WC)	Walls	Localised cracking to finishes.	Prepare and redecorate to match existing.	2m	D	£25.00	£50.00
	Ceiling	Good condition.	-	-	-		
	Floor	Coming away at the edges and at welded joints.	Replace floor covering with new sheet vinyl and underlay with coved skirtings.	4m²	D	£95.00	£380.00
	Window (East wall)	Painted timber casement generally in serviceable condition; Refer to notes.	See general note.	1 item	B		in elevations
	WC fit out	Fair condition.	-	-	-		
UG06 (Womens WC)	Walls	Localised cracking to finishes.	Prepare and redecorate to match existing.	2m	D	£25.00	£50.00
	Ceiling	Good condition.	-	-	-		
	Floor	Coming away at the edges and at welded joints.	Replace floor.	4m²	D	£95.00	£380.00
	Window (East wall)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 item	B		in elevations
	WC fit out	Fair condition.		-	-		
UG07 (Kitchen)	Walls	Localised cracking to finishes.	Prepare and redecorate to match existing.	2m	D	£25.00	£50.00
	Ceiling	Good condition.		-	-		
	Floor	Coming away at the edges and at welded joints.	Replace floor covering with new sheet vinyl and underlay with coved skirtings.	9m²	D	£95.00	£855.00
	Window (East wall)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	1 item	B		in elevations
	Window (West wall)	Sash window deteriorated; Refer to notes.	Overhaul window, filling and refixing to sash box. Repair and redecorate; Refer to notes.	1 item	D		in elevations
	Kitchen joinery	Good condition. No splashback.	Install splashback.	1 item	B	£900.00	£900.00
	Ovens x2	Client noted they have been isolated and want removing and replacing.	Remove and replace.	2 items	D	£700.00	£1,400.00
Upper Ground Floor							**£7,805.00**

EAST ELEVATION

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
Bay 1	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	2m²	C	£120.00	£240.00
			High level - Rake out and repoint; Refer to notes.	3m²	C	£120.00	£360.00
		Larger holes within wall.	Consolidate brick; Refer to notes.	5 holes	C	£25.00	£125.00
		Localised brickwork receding.	Consolidate brick; Refer to notes.	5 bricks	C	£10.00	£50.00
	Fascia board	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£150.00	£150.00
	Windows (x6)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	6 items	B	£385.00	£2,310.00
		1no. damaged tile to tiled cill.	Remove and replace individual tile to cill.	1 item	D	£100.00	£100.00
	Roof	Good condition.	-	-	-		
Bay 2	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	1m²	C	£120.00	£120.00
			High level - Rake out and repoint; Refer to notes.	0.5m²	C	£120.00	£60.00
		Localised bricks receding.	Cut out and replace bricks; Refer to notes.	2	C	£25.00	£50.00
			Consolidate brick; Refer to notes.	2	C	£10.00	£20.00
	Fascia board	Timber painted, good condition.	-	1 item	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£250.00	£225.00
	Door (x1)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 item	B	£250.00	£250.00
	Windows (x7)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	7 items	B	£575.00	£4,025.00
		Timber painted cill chipped with exposed timber.	Refer to notes.	1 item	B	£100.00	£100.00
	Roof	Mortar infill to tiles damaged or missing at eaves.	Repoint tiles at eaves to match existing.	3 tiles	B	£2.50	£7.50
Bay 3	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	0.5m²	C	£120.00	£60.00
			High level - Rake out and repoint; Refer to notes.	0.5m²	C	£120.00	£60.00
		Localised bricks receding.	Consolidate brick; Refer to notes.	3 bricks	C	£10.00	£30.00
	Fascia board and cornice.	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£250.00	£250.00
	Door (x1)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 item	B	£250.00	£250.00
	Windows (x3)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	3 items	B	£650.00	£1,950
	Roof (left and right returns)	Mortar infill to tiles damaged or missing at eaves.	Repoint tiles at eaves to match existing.	All	C	£25.00	£125.00
	Bell	Fair condition, finishes worn or failing.	Overhaul, prepare and redecorate.	1 item	D	£400.00	£400.00

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
Bay 4	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	2m²	C	£120.00	£240.00
			Consolidate brick; Refer to notes.	10 bricks	C	£10.00	£100.00
	Fascia board	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£200.00	£200.00
	Door (x1)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 item	B	£250.00	£250.00
	Windows (x5)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	5 items	B	£640.00	£3,200.00
		Cills water damaged and decayed.	Allow for replacement painted timber cills to match existing.	2 items	B	£250.00	£500.00
	Roof	Good condition.	-	-	-		
General	Paving	Brick paving covered in vegetation.	Treat vegetation with weed killer and remove. Repoint brick paving.	55m²	D	£170.00	£9,350
East Elevation Cost							**£25,157.50**

NORTH ELEVATION

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
Bay 1	Masonry	Generally good condition, localised brickwork receding.	Consolidate brick; Refer to notes.	1m²	C	£1,200.00	£1,200.00
	Fascia board	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Good condition.	-	-	-	£125.00	£125.00
	Roof	Good condition.	-	-	-		
	Chimney	Good condition, chimney pots are now installed.	-	-	-		
General	Paving	Vegetation growing over brick paving.	Treat vegetation with weed killer and remove. Repoint brick paving.	5m	D	£170.00	£850.00
North Elevation Cost							**£2,175.00**

WEST ELEVATION

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
Bay 1	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	3m²	C	£120.00	£360.00
			High level - Rake out and repoint; Refer to notes.	0.5m²	C	£120.00	£60.00
		Localised brickwork receding.	Cut out and replace bricks; Refer to notes.	10 bricks	C	£25.00	£250.00
			Consolidate brick; Refer to notes.	10 bricks	C	£10.00	£100.00
	Fascia board	Timber painted. Good condition.	-	-	-		
	RWPs and gutters	Good condition generally, lower section loose.	Refix downpipe.	1 item	B	£150.00	£300.00
	Roof	Mortar infill to tiles damaged or missing at eaves.	Repoint tiles at eaves to match existing.	10 tiles	C	£2.50	£25.00
Bay 2	Porch render	High level render in good condition.	-	-	-		
		Painted decorative finish to columns failing and coming away, assumed inappropriate preparation and/or coating applied.	Remove existing finishes, prepare and redecorate with breathable paint finishes.	4 columns	B	£400.00	£1,600.00
	Porch timber	Finishes cracking.	Prepare and redecorate timber to match existing.	6m²	D	£25.00	£150.00
	Fascia board	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£325.00	£325.00
	Door (x1)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	1 item	B	£300.00	£300.00
	Windows (x2)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	2 items	B	£950.00	£1,900.00
	Roof	Good condition.	-	-	-		
Bay 3	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	1m²	C	£120.00	£120.00
		Localised brickwork receding.	Consolidate brick; Refer to notes.	5 bricks	C	£10.00	£50.00
	Fascia board and cornice.	Painted timber, good condition.	-	-	-		
	RWPs and gutters	Good condition generally, lower section loose.	Refix downpipe.	1 item	B	£350.00	£100.00
	Roof (left and right returns)	Good condition.	-	-	-		
	Black lagging into plant room	Black lagging ripped in areas.	Remove and replace with external grade lagging.	0.5m	D	£200.00	£270.00
Bay 4	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	1m²	C	£120.00	£120.00
		Localised brickwork receding.	Consolidate brick; Refer to notes.	15 bricks	C	£10.00	£150.00
	Fascia board	Timber painted. Good condition.	-	-	-		
	RWPs and gutters	Good condition generally, lower section loose.	Refix downpipe.	1 item	B	£270.00	£270.00
	Door (x2)	Painted timber door leaf and frame generally in fair condition; Refer to notes.	Refer to notes.	2 items	B	£250.00	£500.00
	Windows (x2)	Painted timber casement generally in serviceable condition; Refer to notes.	Refer to notes.	2 items	B	£555.00	£1,100
	Roof	Mortar infill to tiles damaged or missing at eaves.	Repoint tiles at eaves to match existing.	7 tiles	C	£2.50	£17.50
	Vent	Vent in top right corner (high level) is loose.	Refix vent securely.	1 item	C	£50.00	£50.00
General	Floor	Vegetation growing up brickface.	Treat vegetation with weed killer and remove.	30m	D	£25.00	£750
West Elevation Cost							**£8,957.50**

SOUTH ELEVATION

LOCATION	REFERENCE	DESCRIPTION OF CONDITION	RECOMMENDED ACTION	QUANTITY	PRIORITY	RATE (£)	COST (£)
Bay 1	Masonry	Generally good condition, mortar receding in areas.	Low level - Rake out and repoint; Refer to notes.	0.5m²	C	£120.00	£60.00
		Localised brickwork receding.	Cut out existing brickwork and replace with new to match existing.	5 bricks	C	£25.00	£125.00
			Cut out and replace bricks; Refer to notes.	5 bricks	C	£25.00	£125.00
	Fascia board	Timber painted, good condition.	-	-	-		
	RWPs and gutters	Cast iron, good condition.	-	-	-	£125.00	£625.00
	Roof	Mortar infill to tiles damaged or missing at eaves.	Repoint tiles at eaves to match existing.	5m	C	£125.00	£500.00
	Chimney	Good condition, chimney pots are now installed. Mortar flaunching failing.	Remove existing flaunching, prepare and replace with lime mortar flaunching.	1 item	D	£500.00	£500.00
General	Paving	Vegetation growing over brick paving.	Treat vegetation with weed killer and remove. Repoint brick paving.	5m	D	£170.00	£850.00
South Elevation Cost							**£2,410.00**
TOTAL							**£51,493.75**

SCAFFOLD	£30,000.00

PRELIMINARIES

NR	WORK DESCRIPTION	QTY	UNIT	RATE (£)	%	TOTAL (£)
1	Management	4	weeks	2,000.00	100%	8,000.00
2	Welfare - assume can use existing	0	weeks	110.00	100%	-
4	Welfare facilities	1	item	500.00	100%	500.00
5	Covid 19	4	weeks	30.00	100%	120.00
6	Sundries	4	weeks	20.00	100%	80.00
7	Electric and water connections	0	item	1,000.00	100%	-
8	Utility bills		Item			by employer
9	Broadband	4	weeks	20.00	100%	80.00
10	PPE	1	item	500.00	100%	500.00
11	Safety inspections	0	months	500.00	100%	-
12	Photographic condition survey	1	item	500.00	100%	500.00
13	First aid/fire	4	weeks	10.00	100%	40.00
14	Health and safety signage	1	item	250.00	100%	250.00
15	Rubbish removal	1	nr	400.00	100%	400.00
16	Skip licence - not required	4	weeks	100.00	100%	Excluded
17	Small tools	4	weeks	50.00	100%	200.00
18	Towers - internal for window in double height space	1	item	250.00	100%	250.00
19	O&M manuals/H&S plan	1	Item	500.00	100%	500.00
20	Security fencing	0	m	200.00	100%	-
21	Protection	1	item	-	100%	-
22	Builders clean	1	item	500.00	100%	500.00
23	Insurances	4	weeks	120.00	100%	480.00
24	Performance bond	1	item	2,500.00	0%	-
TOTAL ESTIMATED COST						12,400.00

SUMMARY

LOCATION	REFERENCE	COST (£)
Lower ground floor		£4,988.75
Upper ground floor		£7,805.00
East elevation		£25,157.50
North elevation		£2,175.00
West elevation		£8,957.50
South elevation		£2,410.00
		£51,493.75
Scaffold		£30,000.00
Preliminaries		£12,000.00
		£93,493.75
Main contractor's OH&P		included
		£93,493.75
Professional fees		To be advised
		£93,493.75
Risks:	10.00%	£9,300.00
Design development risks		included above
Construction risks		included above
Employer change risk		included above
Employer other risks		included above
		£102,793.75
Inflation:		To be advised
Up to start on site		
During cosntruction		
		£102,793.75
VAT	20.00%	£20,600.00
Total Estimated Cost		£123,393.75

Elevation East


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242268-PUR-00-XX-PH-A-0003.jpg


242268-PUR-00-XX-PH-A-0004.jpg


242268-PUR-00-XX-PH-A-0005.jpg


242268-PUR-00-XX-PH-A-0006.jpg


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242268-PUR-00-XX-PH-A-0012.jpg


242268-PUR-00-XX-PH-A-0013.jpg


242268-PUR-00-XX-PH-A-0014.jpg

Elevation North

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242268-PUR-00-XX-PH-A-0017.jpg

Elevation South

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Elevation West


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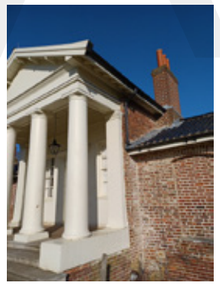
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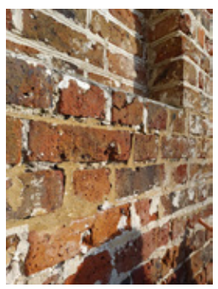
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Elevation West

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LG00 (Well)

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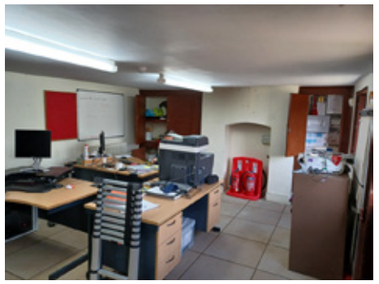
LG01 (Office)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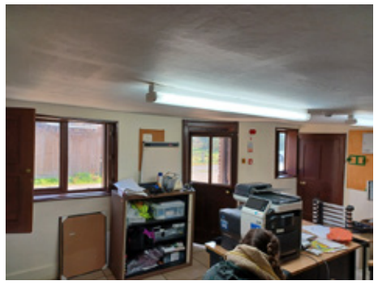
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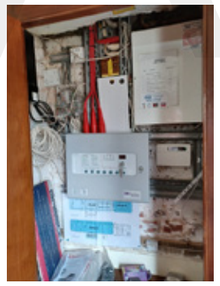
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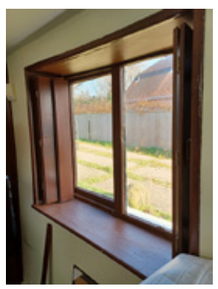
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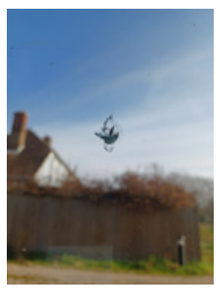
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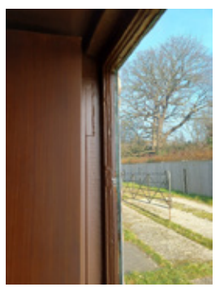
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LG01 (Office)

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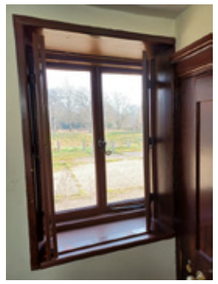

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LG02 (Store)

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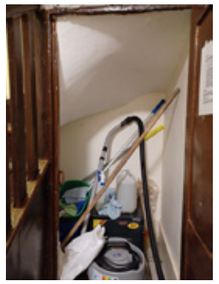

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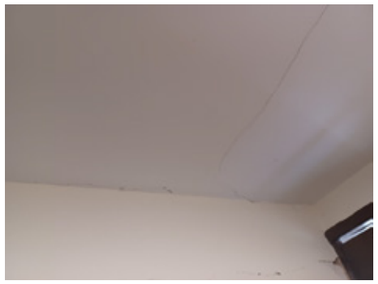
LG03 (Stairs)



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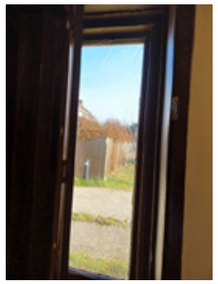

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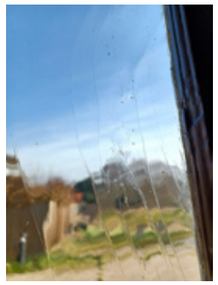

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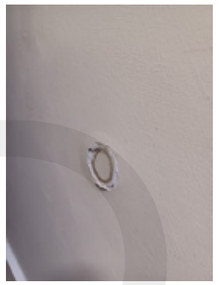

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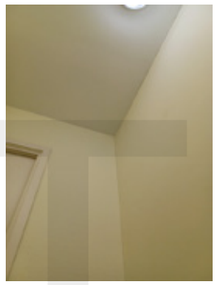

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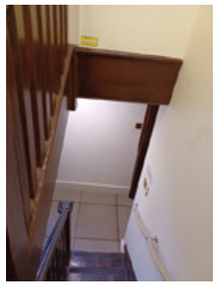

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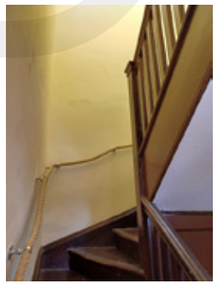

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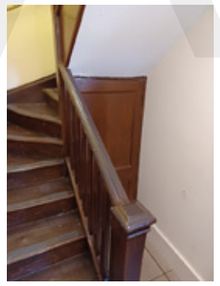

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LG04 (Display Room)

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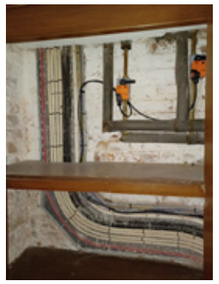

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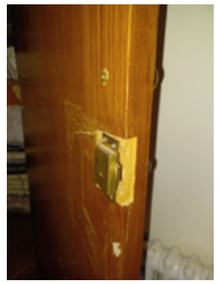

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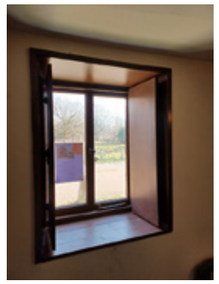

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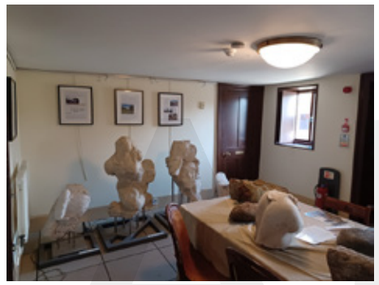

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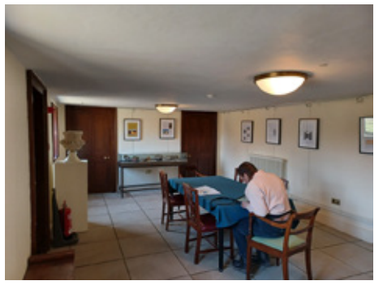
LG06 (Display Room)



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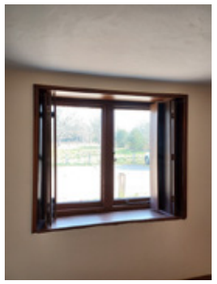

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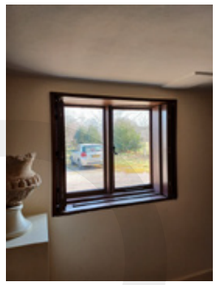

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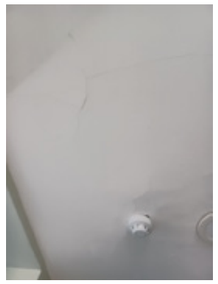
LG07 (Stairs)



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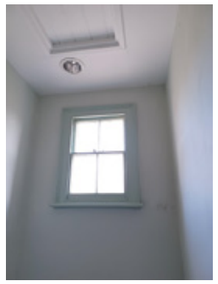

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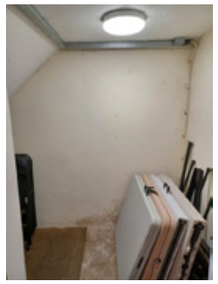
LG08 (Store)



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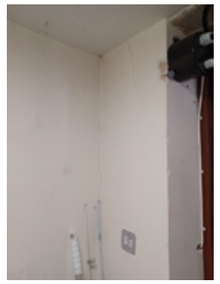

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LG09 (Public Men's WC)

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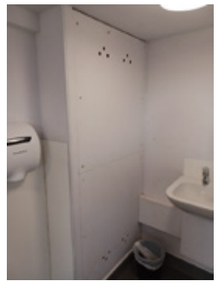

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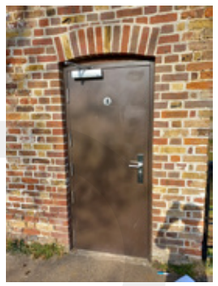

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LG10 (Public Disabled WC)

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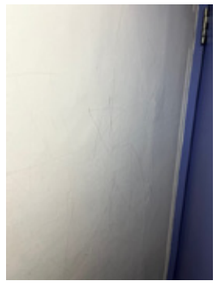
LG11 (Public Women's WC)



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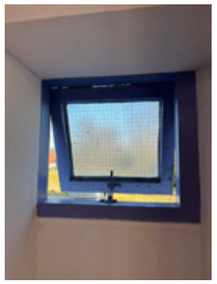

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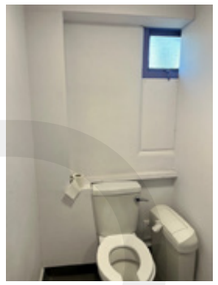

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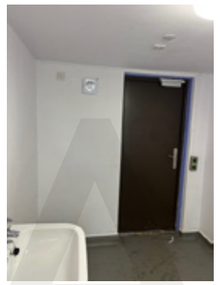

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The Temple

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242268-PUR-00-XX-PH-A-0166.jpg

242268-PUR-00-XX-PH-A-0167.jpg

UG01 (Meeting Room)

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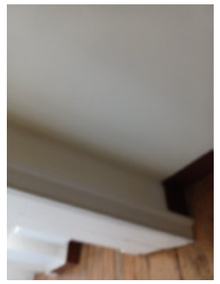

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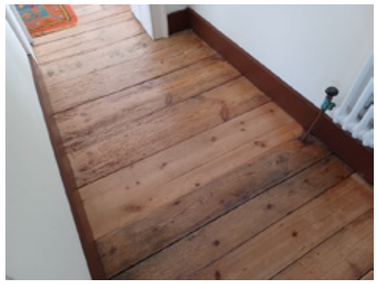

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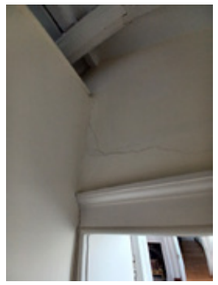

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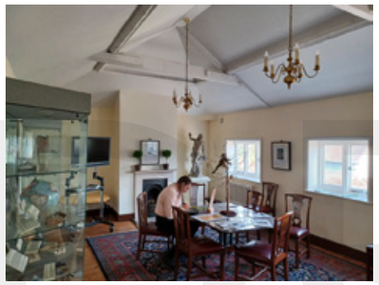

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UG02 (Shop)


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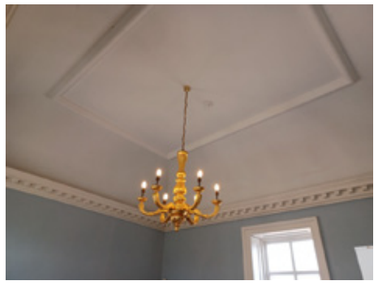
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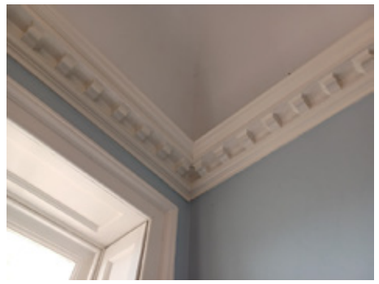
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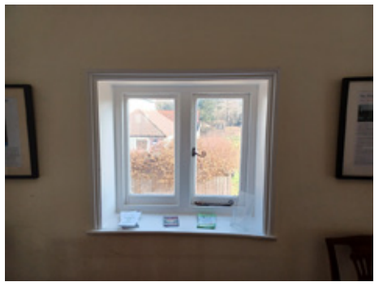
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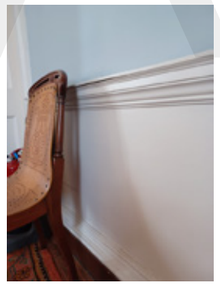
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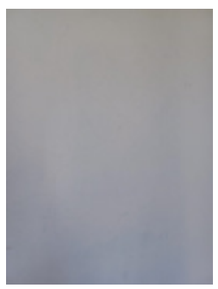
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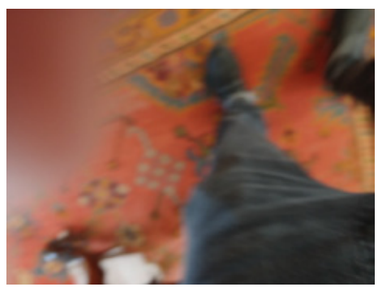
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UG02 (Shop)


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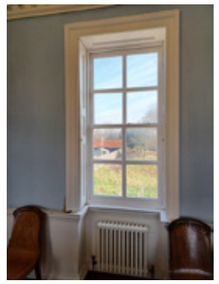
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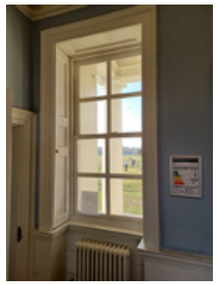
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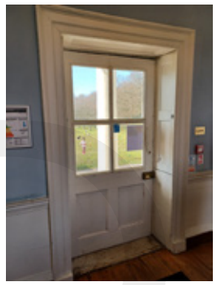
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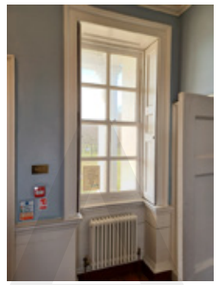
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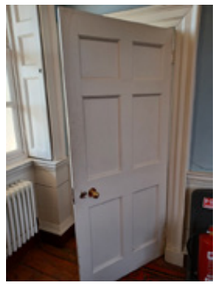
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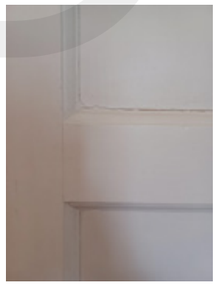
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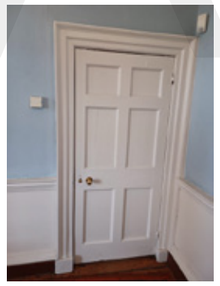
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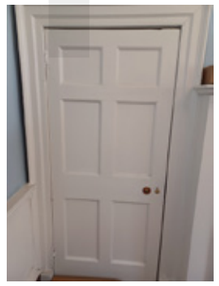
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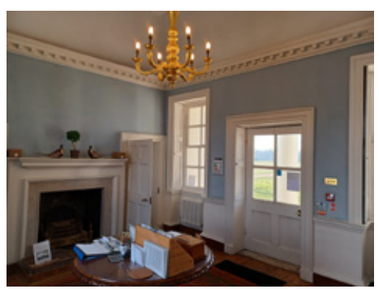
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UG03 (Children's Room)

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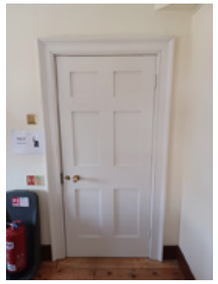

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UG04 (Lobby)

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242268-PUR-00-XX-PH-A-0154.jpg

UG05 (Men's WC)

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242268-PUR-00-XX-PH-A-0157.jpg

UG06 (Women's WC)

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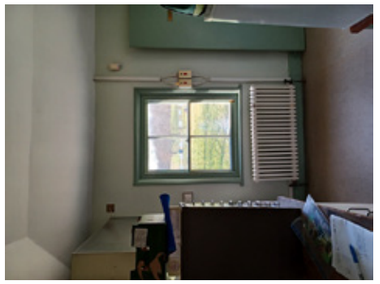
UG07 (Staff Kitchen)



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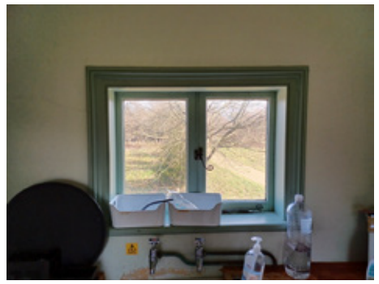

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The Temple, Wanstead Park

Mechanical & Electrical Services Condition Survey Report

20716-QODA-XX-XX-RP-ME-0001

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Revision Summary

Issue	Document prepared			Document checked		
	Name	Signature	Date	Name	Signature	Date
P1	H Courtney		03.03.2023	M Bryan		03.03.2023
P2	H Courtney		21.03.2023	M Bryan		21.03.2023

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1 Executive Summary

On 9th February 2023, QODA surveyed the mechanical, electrical and public health services within The Temple, Wanstead Park, London E11. The survey aimed to identify the critical services within the building and comment on any units or systems that would need replacement. The following key points were noted during our survey:

- The general condition of the services at the temple were in reasonable condition.
- The kitchen extract fan is the cause of considerable heat loss and draughts. It also appears to be redundant to the operation of the kitchen and so should be removed or replaced with the opening to outside made weatherproof.
- QODA could not access the attic level or areas in the public WCs which are secured shut.
- There are insufficient sockets within the lower ground floor office.
- The control of heat distribution around the site is a source of occupant complaint. This may be remedied by new valves to each radiator.

Following a review of the condition of the services, options are outlined to create a more sustainable building and contribute to the City Of London's net zero goals. A number of options are reviewed and, at this stage, the most promising of these are:

- To improve the heat retention of the building through:
  - Improving the air tightness of the building.
  - Double or secondary glazing to the existing windows.
  - Installing insulation for the internal walls.
- Changing the heating system to operate using an electrically driven heat pump.

The heritage nature of the building will make it unlikely that it will ever be able to achieve net-zero operational carbon, however the measures described above will reduce the energy used by the building.

2 Introduction

The City of London appointed QODA to survey the mechanical, electrical and public health services within The Temple, Wanstead Park, London E11.

The survey was undertaken on 9th February 2022 with the attendance of Martin Bryan (Associate Director) and Hugo Courtney (Mechanical Engineer) of QODA. The survey was non-intrusive and covered all areas on the lower and upper ground floor. The attic and public toilet service areas were inaccessible at the time of the survey meaning that the details of the building services could not be viewed.

The Temple is a two-storey building with the primary use as a museum located within Wanstead Park. The upper ground floor comprises the main entrance, museum, toilets, and kitchen. The lower ground floor includes a museum, office and plant room housing most of the plant equipment for the site. Public toilets are located on the lower ground floor. These are accessible via their own entrance and provide no access

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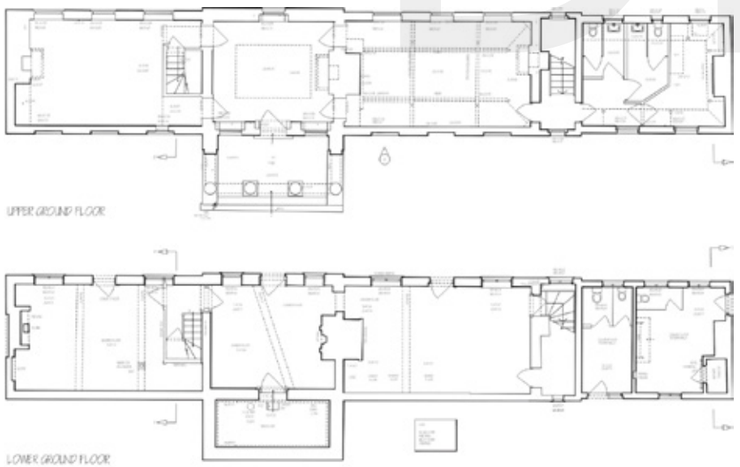
to the rest of the building. It was not possible to survey the services in these areas as they are contained behind secured panels.

The site boundary for the project is not yet defined however the services appear to be entirely within the building. For purpose of this report, the survey was limited to accessible and visible services within the building.

The Temple Site



The Temple Layouts

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3 Objectives of the Report

The objectives of this report are as follows:

- To provide a record of the assessed condition of existing services within The Temple, highlighting any compliance shortfalls in the building.
- To provide potential options for future improvements to The Temple which will lower the buildings energy consumption or carbon emissions.

To meet these objectives, QODA have taken the following actions:

- Conduct a visual survey of all the mechanical and electrical systems serving buildings and produce a report detailing the survey findings.
- Provide comments on the existing condition of the services supplying the building.
- Describe any mechanical and electrical systems compliance shortfalls within the building and provide recommendations to update services to comply with regulations.
- Provide options for energy reduction measures for the building fabric and services.

4 Building Survey

4.1 Condition Grading

To consistently describe the condition of the building services plant and equipment within the individual buildings, this report uses the condition grading system detailed in CIBSE Guide M, Maintenance Engineering and Management definitions, 14.5 Condition Grading.

The following condition grades are used to record the assessed condition of the plant and equipment so that a consistent interpretation is understood by both the surveyor and recipient of the results.

Grade	Description
A. Good	the asset is 'as new' and can be expected to perform adequately to its full normal life if maintained appropriately.
B. Average	the element is sound, operationally safe and exhibits only minor deterioration.
C. Poor	the element is operational but major repair or replacement will be needed.
D. Very poor	the element runs a serious risk of imminent breakdown or poses a health and safety risk.
X. Beyond repair	a grade attached to C or D to indicate that it is impossible to improve without replacement.

4.2 Remaining Life Expectancy

The indicative life expectancy is based on the table given in CIBSE Guide M, Maintenance Engineering and Management Appendix 12.A1. This is industry standard data and is intended primarily for economic

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evaluation analysis and is likely to provide a conservative prediction, particularly when assets have been in use for some years and have been well maintained to the 'SFG20' maintenance standard.

SFG stands for the 'Service and Facilities Group', a specialist group within the Building Engineering Services Association (BESA). SFG20 is a standard maintenance specification for building engineering services. It is an industry standard tool for planned preventative maintenance.

In the event that plant and equipment has not been maintained to the 'SFG20' maintenance routine or similar, the indicative life expectancy may be less than identified.

The life expectancy of building services plant is influenced by several factors, namely:

- The quality of the installed product.
- The environment in which it operates.
- The level of maintenance and care taken over its continued reliable operation.
- Obsolescence through manufacturer no longer supporting spares parts.

As such, it is not always a clear-cut decision that when a CIBSE recommended lifespan is met that plant has to be replaced, as often the case with high quality equipment and a professional maintenance regime the recommended lifespan can often be extended beyond that suggested. In which case each item must be judged on an individual basis. The CIBSE guide is a benchmark providing a good indication of when replacement should be considered.

4.3 Compliance & Recommendations

From site visit observations, the mechanical and electrical systems can be described with compliance shortfalls within the building and recommendations to update services to meet legislation and compliance.

The table below is used to demonstrate the level of risk attributed to the shortfall in compliance or legislation.

Risk-Importance	Description
1	Low risk item requiring attention within a reasonable timescale.
2	Medium risk item requiring rectification within a 2 – 3 month period.
3	High risk item – life safety issue- requiring immediate attention.

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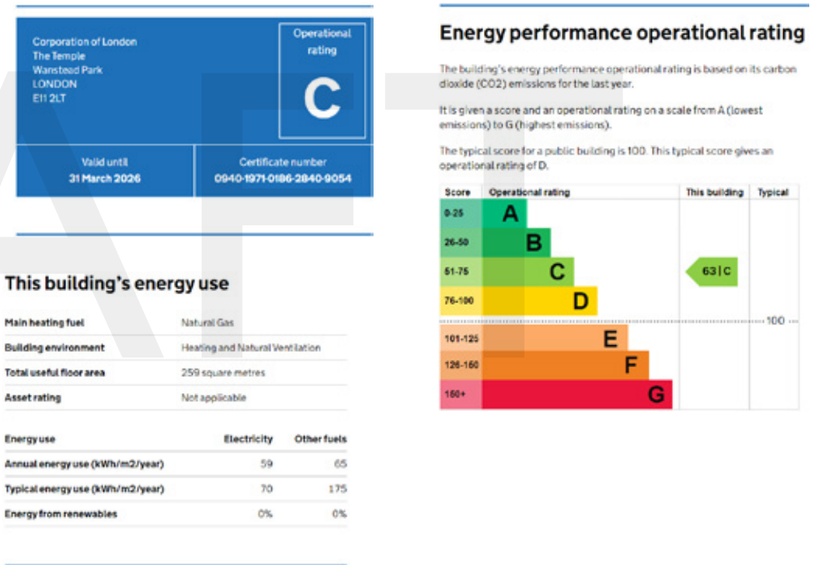
5 The Temple Building

5.1 Energy Performance Building Directive

A review of the Government https://www.gov.uk/find-energy-certificate web site was carried out for valid EPC inspection report for the building:

The Energy Performance Certificate (EPC) certificate reference number: 0920-1971-0187-2240-9054 registered on the UK Government site expired February 2023 and had an Energy Rating C.



Corporation of London
The Temple
Wanstead Park
LONDON
E11 2LT

Operational rating: C

Valid until: 31 March 2026

Certificate number: 0940-1971-0186-2840-9054

This building's energy use

Main heating fuel	Natural Gas
Building environment	Heating and Natural Ventilation
Total useful floor area	259 square metres
Asset rating	Not applicable

Energy use	Electricity	Other fuels
Annual energy use (kWh/m2/year)	59	65
Typical energy use (kWh/m2/year)	70	175
Energy from renewables	0%	0%

Energy performance operational rating

The building's energy performance operational rating is based on its carbon dioxide (CO_2) emissions for the last year.

It is given a score and an operational rating on a scale from A (lowest emissions) to G (highest emissions).

The typical score for a public building is 100. This typical score gives an operational rating of D.

Score	Operational rating	This building	Typical
0-25	A		
26-50	B		
51-75	C	63 | C	
76-100	D		100
101-125	E		
126-150	F		
150+	G		

An EPC is valid for 10 years In England and Wales, under recent legislation, from 1st April 2018 any commercial property that has an EPC of lower than an 'E' cannot be rented out to new tenants or renew any existing tenancy contracts until at least an 'E' rating is obtained. With a previous EPC rating of C, The Temple is unlikely to be at risk of limitations to letting however it is possible that if the calculation methodology changes over time that the score on the next EPC may not be the same as the last.

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5.2 General Description of the Installed Landlord's / Tenant's Mechanical Services

Please note that the undertaking of Planned Preventative maintenance for the identified equipment is not included in the following tabulated information.

Service	Item	Description	Grade	Risk	Expected Economic Life	Photograph Reference
Incoming Water Supply	General Installation	The building's incoming mains water supply pipework was not visible during our site survey. The presence of a water meter was mentioned but was not visually confirmed. The landlord maintains the incoming supply with the mains water supply feeding all domestic outlets. A water connections to the mechanical system was also identified and while it is probably that this is a mains water supply, it could not be confirmed.	Unknown	Unknown	Unknown	N/A
Incoming Natural Gas Supply	General Installation	The building's incoming gas main feeds into the plant room on the ground floor. The incoming pipework to the meter is adequate, with no apparent faults. The gas meter is in good condition, and accurate meter readings can be taken.	A	1	5+	12
Incoming Electrical Supply	General Installation	The property is provided with 3 phase Low Voltage (LV) incoming supply terminating at a service head. This supply is rated at 100A TP&N supply with a maximum capacity of 69kVA. An old analogue style meter is currently being utilised which could be upgraded to a digital or smart meter if desired.	B	1	5+	18
Above Ground Drainage	General Installation	The above-ground drainage is generally concealed and distributed to the East side of the building. No leaks were reported or identified during the survey. Pipework and joints appeared to be in good condition with no signs of corrosion identified.	A	1	10+	2

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Service	Item	Description	Grade	Risk	Expected Economic Life	Photograph Reference
Internal Mains Cold Water Distribution	Pipe work	Mains cold water pipework is distributed from below ground to the first floor, where it runs to WC's first floor and the exterior toilets. Pipework appears to be in good condition with no leaks. The pipework to the loft and a possible Feed and Expansion tank could not be assessed. If the tank in the loft is still present then there is a possibility that a deadleg may be present if the pipework was not stripped back following the installation of the current boiler. Legionella test and control certificates were not available to view on site	A	2	10	16
Domestic Plant	Feed and Expansion	The new boiler includes an expansion vessel which indicates that the F&E tank is no longer needed and redundant.	A	2	3	15
Domestic Hot Water	Electric Water Heater	There is one electric water heater located within the kitchen that provides hot water to the kitchen and upper ground WCs. The unit is functional and in good condition. The electric water heater is complete with its expansion vessel – also in good condition.	A	1	5	5
	Pipe work	Domestic hot water pipework is generally in good condition, with some pipes near outlets uninsulated. There are signs of minor corrosion in places, but this is by exception rather than common.	B	1	5	16
	Toilets	Toilets throughout the building are functional and fit for purpose.	A	1	5+	17
Domestic Water Services	Legionella Testing and Control	Legionella certificates were not available to inspect. The client should satisfy themselves that the appropriate legionella testing and control is being undertaken and recorded.	C	2	3+	

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Service	Item	Description	Grade	Risk	Expected Economic Life	Photograph Reference
Heating System	Plant	The gas-fired boiler within the plant space is the sole heating equipment for the building supplying 21 radiators on the first and ground. From the O&M, the gas boiler has been replaced, but no indication of when this was carried out. From our observations, the unit is in good condition.	B	1	5+	9
	Radiators	The heating system for the site includes 21 radiators on the upper and lower floors fed by the gas-fired boiler. From inspection, the radiators looked aged but functional, and the connection pipe work and valves look slightly corroded.	B	1	5+	3
	Radiator Valves	From inspection, radiator valves look to be beyond their expected economic life and replacement is recommended. It is likely that the heating to each floor is unbalanced. The installation of new valves or an improved control system would allow for a balanced heating distribution and potentially greater control to where the heat is provided.	B	1	1-5	
Ventilation	Natural Ventilation	The building is naturally ventilated and adequate method of providing fresh air to the building with the current occupancy levels	A	1	N/A	N/A
	Kitchen Extract	The Kitchen, situated on the first floor, has an extract fan over two ovens within the space. The Kitchen is used for small-scale use, at present only kettle and microwave. From the site survey, the kitchen extract is not functioning. If the client wants to provide a cooking facility then it is recommended that the kitchen extract is repaired or replaced. If the Kitchen is to remain a tea point with kettle and microwave use, the mechanical extract should be considered to comply with the requirements of the building regulations. This could be through a new installation or a refurbishment of existing equipment.	D	2	0	7

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Service	Item	Description	Grade	Risk	Expected Economic Life	Photograph Reference
	WC Extract	Each toilet within the building and public toilets has an extract fan that leads directly to the atmosphere via an air brick. The extract fans appear to be in good condition. It is recommended that the filters within the unit are inspected and cleaned/replaced as part of a planned maintenance schedule.	B	1	3/5	17
O & M Manuals		Full O&M manual including record drawings are available on site.	-	-	-	-
Test Certificates		Commissioning certificates are available on site in the above referenced O & M manuals.	-	-	-	-

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5.3 General Description of the Installed Landlord's / Tenant's Electrical Services

Please note that the undertaking of Planned Preventative maintenance for the identified equipment is not included in the following tabulated information.

Service	Description	Grade	Risk	Remaining economic life (years)	Photo. ref.
Security System	Security system in good working condition. Located within Cupboard in ground floor office.	A	1		22
Electrical Systems	During the survey, the client noted that there is insufficient sockets in the ground floor office. The exposed cable tray within the plantroom was not bonded to earth which would be acceptable if neither an exposed conductive part or an extraneous conductive part. As the cabling is sheathed and/or armoured, there is sufficient mechanical protection to mean the tray is not an exposed conductive part. The cable tray does run adjacent to and close to a number of mechanical services including the incoming water and gas connection which introduces the risk of the tray becoming an extraneous conductive part. The cable tray should either be tested and proved to be suitably disconnected and not at risk of becoming an extraneous part or supplementary bonding should be provided. Test certificates were not available for inspection.	B	2	5+	-
Electrical Intake	The property is provided with 3 phase Low Voltage (LV) incoming supply terminating at a service head. This supply is rated at 100A TP&N supply with a maximum capacity of 69kVA. An old analogue style meter is currently being utilised which could be upgraded to a digital or smart meter if desired.	B	1	5+	18

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Service	Description	Grade	Risk	Remaining economic life (years)	Photo. ref.
Lighting Controls	The lighting control panel appears in reasonable condition, although somewhat aged and servicing stickers present on the equipment indicate that the installation is at least 10 years old. A condition survey in 2022 stated that the equipment was approaching the end of its service life and was due for replacement. The equipment is likely to be approaching the end of its service life however it appears to be well maintained and so replacement should be considered as part of the site maintenance plan.	B	1	1-3	
Lighting	During the survey, the client commented that some lighting fittings on ground floor are not flush to the ceiling and so, due to the limited floor to ceiling height of the space, the luminaire is lower than is desirable and that flush fittings would be preferred in the future. Lighting generally appeared to be provided by a range of low energy fittings, with LED and fluorescent fittings in reasonable condition for their age. It is possible that some lights on the Lower Ground floor may include halogen or incandescent bulbs however this was not observed during the visit. While there may be instances where more appropriate fittings or lower energy luminaires can be installed, the survey did not identify any defects which required urgent attention.	A	1	5+	-
Emergency Lighting	Emergency lighting units were observed in the building and appeared to be in good condition.	A	1	1+	
Fire Alarm	Fire alarm appears to be in good working condition. Located within Cupboard in ground floor office. Test certificates were not available for inspection. The fire detection system is a wired system which monitors 4No zones withing the building. The fire detection panel has an integral battery and appears to be in good condition. The equipment appears compliant with BS 5839-1:2017 (Fire detection and fire alarm systems for buildings) and is assessed to be a category L2 system. The public WCs are not monitored by the fire alarm system. Smoke detection heads appeared to be in good condition although the age of the heads could not be confirmed.	A	1	3+	22

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Service	Description	Grade	Risk	Remaining economic life (years)	Photo. ref.
CCTV	CCTV located around the exterior of the property. During our site visit it was not clear where the recordings feed to or if the system is active and monitored.	A	2	3+	24
Communications	The building appears to have a optical fibre data connection provided by BT and located in the lower ground floor office space. The installation of the data connection has minor defects such as a missing screw and untidy wires which should be clipped to prevent being pulled from their connections.	B	2	3+	
O&M Manuals	Full O&M manual including record drawings are available on site however there was some outdated information contained in the folders which should be updated (the domestic water schematic appeared to be out of date).	-	-	-	-
Test Certificates	Commissioning certificates are available on site in the above referenced O & M manuals.	-	-	`	-

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6 Building Improvement Options

This section identifies and discusses possible interventions and upgrades to the House and outlines which interventions are technically feasible. Interventions can be categorised into two primary sections:

1. Building fabric – the building envelope.
2. Building services – systems that make the building work.

6.1 Building Fabric

Following the site survey, some potential opportunities have been identified within the building which may improve the building's thermal performance. As the public toilets are not heated, any building fabric improvements to this area would yield little return.

It should be noted that proposed improvements to the building fabric depend on gaining listed building consent for any planned works.

6.1.1 Glazing

Glazing, particularly single glazing, typically accounts for a considerable heat loss from a building. As the property is grade II listed, installing replacement double glazing to the property is not likely to be allowable, but internal secondary glazing may be considered to reduce the thermal loss through the building.

6.1.2 Internal Walls

Uninsulated walls represent a significant source of heat loss. Generally, such losses can be reduced by adding insulation in three locations: internally, externally, or cavity fill. The building is not thought to have a cavity and because of its listed status, external insulation is unlikely to be acceptable. It is likely that the only option that might be feasible for The Temple would be internal wall insulation (IWI). IWI would be highly disruptive to install, requiring interior finishes and detailing (wall panels, cornices, etc.) and services (radiators, sockets, etc.) to be removed and reapplied. For these reasons, wall insulation is not recommended.

6.1.3 Air tightness

Improving building airtightness would reduce heating requirements and improve thermal comfort by reducing cold draughts and heat losses. There are opportunities to minimise draughts by refurbishing window frames and replacing window and door seals. External brickwork can also be repointed with a lime mortar to reduce the air permeability of the building.

From our site survey, the kitchen extract includes a large opening which is responsible for considerable heat loss. Removing the existing extract and sealing the hole in the wall would remedy this however if the kitchen is to remain in service then an extract will be required. The extract for the kitchen should be

assessed against the use that the kitchen is expected to have and sized accordingly. Any new extract should be fitted with a weatherproof outlet to reduce heat losses to the minimum possible.

There is some limited scope for a Mechanical Ventilation and Heat Recovery unit at The Temple, however this is not considered practical for the building due to the need for ducting and the limited areas where ceiling heights or finishes make it appropriate.

6.1.4 Roof Insulation

Poorly insulated roofs can significantly reduce the building's thermal efficiency. During the survey, QODA were unable to access the loft space or see details of the roof buildup. Almost any increase in the roof insulation will improve the building energy performance, however the issues of disruption and interfering with historic features will likely make this impractical.

6.2 Building Services

This section considers opportunities to improve the existing services within the building. Due to the low impact of building services systems, this report outlines two possible improvements to the space heating regarding distribution pipework, controls and heat generation.

Should any of the options below be of interest to the client then a feasibility study will be necessary to provide early information about potential project requirements and estimated equipment sizes and indicative costing.

For the following sub-sections, please note that any change to electrical heating will result in an increase in electrical demand and so necessitate a detailed review of the electrical supply to the building to assess whether upgrades will be necessary.

6.2.1 High Temperature ASHP

Space heating is currently provided by a gas boiler and radiator system at Temple. Introducing a high-temperature ASHP to replace the gas-fired boiler is a potential way to improve the environmental performance of the building while maintaining the existing performance of the heating system.

A high temperature ASHP would allow for the current radiators to be retained with little or no alteration however consideration will need to be given to how the external unit is accommodated in a manner which is sympathetic to the existing building and its surroundings. At this stage it appears that the existing plant space may be adequate to accommodate the internal equipment however this will need to be confirmed during a feasibility study and design process.

6.2.2 Low Temperature ASHP

A Low-temperature ASHP would be very similar to a high-temperature ASHP. The heating system would produce low-temperature hot water (LTHW), resulting in a more efficient heating system and lower operating costs. Reducing water temperature would require the site to replace all the existing radiators with larger LTHW radiators. At this stage, the existing plant space may be adequate to accommodate the internal equipment; however, this will need to be confirmed during the design process. Due to the disruption of increasing the size of each radiator in the building, this option is not considered viable at this time.

6.2.3 Ground Source Heat Pump

A GSHP system could be installed on the site to provide renewable space heating. Allowing GSHP to the site would allow for a significant carbon reduction but would require external space allocation for buried services around the building. To provide GSHP as a suitable solution, either borehole or pipework within trenches must be allowed, illustrated below. Water at a similar temperature to an ASHP, necessitating the replacement of the existing radiators for larger units throughout the building.

Potential GSHP borehole array locations

While GSHPs are very efficient, the capital cost of their installation is high and their capabilities are similar to those of ASHPs. This means that if a GSHP were installed, the radiator system in the building would need to be resized and replaced.

Due to the disruption of increasing the size of each radiator in the building, this option is not considered viable at this time.

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7 Conclusion

QODA Consulting conducted a site survey to determine the condition of the existing mechanical and electrical equipment at The Temple site. This report identifies the condition of existing services equipment and future actions to be carried out to improve and maintain the site's function.

The most significant observations made about the existing services are:

7.1 Site Survey

Certification for regular testing for Legionella, the electrical system and the fire alarm were not available to view during the survey.

The kitchen extract fan should either be replaced or removed and seal the extract opening. This is dependent on the kitchen's future use.

O&M documentation needs to be updated to record works that occur to The Temple. An example of this is that the domestic water schematic shows a Feed and Expansion (F&E) tank however it is unclear whether this equipment is still present on site and whether it was removed with consideration given to any potential deadlegs that could be created.

The installed electrical system has insufficient sockets within ground floor office for the rooms current use.

The heating system does not deliver heat evenly across the building. The system either needs to be re-balanced or a future project could look to install an improved control system.

Future Building Improvements

Looking forward to the site's longevity and meeting the City of London's low carbon ambitions, this report outlines options for the site which could improve the energy efficiency and reduce carbon emissions from the building. These options can be summarised as:

Alterations to the Building Fabric

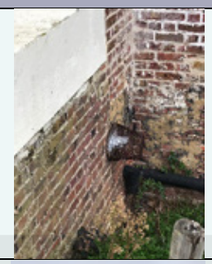
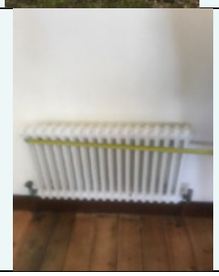
- Secondary glazing can be fitted to each of the existing windows.
- Internal walls to allow for further insulation.
- Improve air tightness of the building.

Alterations to the Heating System

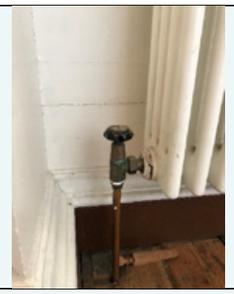
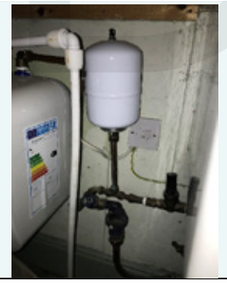
At this stage, the introduction of a high temperature Air Source Heat Pump would provide the most appropriate method of reducing carbon emissions from the building. A further study would have to be carried out to assess the feasibility, size and location for this equipment.

QODA

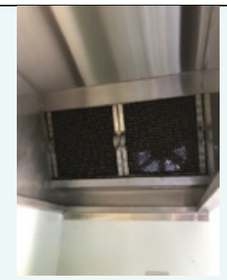
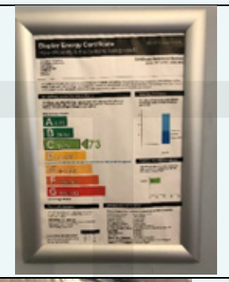
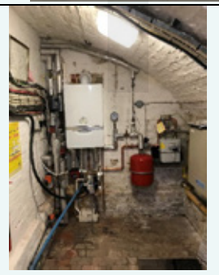
8 Mechanical Services reference photos

Photo Number	Photo	Comments
1.	Gas Boiler Louvre	
2.	Foul Drainage	
3.	Radiator	

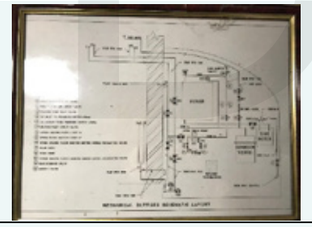
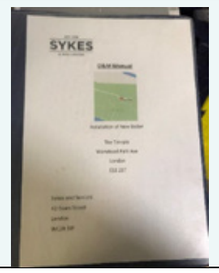
QODA

4.	Radiator Valve	
5.	Instant Hot Water	
6.	Instant Hot Water Pressure Vessel	

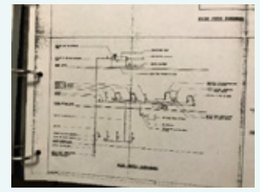
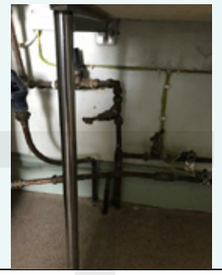
QODA

7.	Kitchen Extract	
8.	Current Display Certificate	
9.	Plant Space	
10.	Primary Heating Pump	

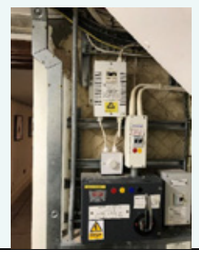
QODA

11.	Heating Expansion Vessel	
12.	Gas Meter	
13.	Boiler Schematic	
14.	O&M Manual	

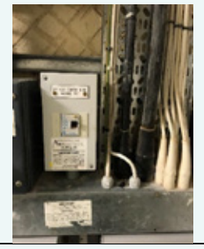
QODA

15.	Water Serving Schematic	
16.	Domestic Water	

9 Electric Services reference photos

Photo Number	Photo	Comments
17.	Central Lighting Control	

QODA

18.	DP RCD Controlling Board	
17.	Main Incoming Switch Board	
18.	Electrical Intake 100amp, 3 phase	
19.	Cabling use of MICC	
21.	Small Power and Fire Alarm System	

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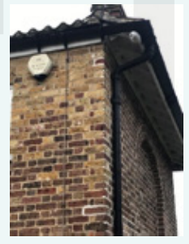
22.	Security System and Fire Alarm Cupboard	
23.	Data Point	
24.	CCTV	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The Temple

Wanstead Park
London E11

Structural Engineering Planning-Stage Report on the Upper Floor

December 2023

Stand Consulting Engineers

Contents

1.0 Introduction
2.0 The Existing Structure
3.0 Comments on the Existing Structure
4.0 Conclusions

Appendix 1 Photographs
Appendix 2 Structural drawings
Appendix 3 Structural calculation

1.0 Introduction

This report has been prepared for our client Purcell by Stand Consulting Engineers to provide structural engineering comments on the first floor of The Temple.

The Temple is in Wanstead Park and the property and park are owned and managed by the City of London Corporation. The Temple contains offices on the ground floor and rooms for meetings, displays and educational visits at first floor level.

We visited the property with Purcell and the City of London on 9 February 2023, and had a general look at the elevations and interiors. No intrusive investigations have been carried although two small areas of the first floor structure were seen at access points, to building services, in the floor boards.. We made a second visit on 6 May 2023 and lifted all the service access points at first floor and one previously cut floorboard to look at the floor structure.

We have reviewed the record information received from the City of London which includes drawings and photographs of previous structural work.

2.0 The Existing Structure

The Temple is a freestanding late-18th century two-storey building in Wanstead Park that is listed Grade II.

The basic structure is load-bearing brickwork walls with a timber first floor and roof structure, photos 1 to 4. Based on our investigations and the record information, the first floor structure is formed with primary timber beams that span between the main walls. Common joists span between the beams and support the floor and ceiling finishes, photos 5 and 6. Modern timber joists that are supported on joist hangers have been added alongside some of the original joists.

There is an area of brick vaulting at ground floor level below the entrance portico, photo 7.

The footings are likely to be shallow brick corbels that bear onto the underlying sands and gravels of the Hackney member, shown on the BGS map. We have prepared summary plans of the existing structure, drawing Nos. 1 to 3, in Appendix 2, which are based on our visits and the record information.

Record photos from 1990 show all the internal floor, wall and roof finishes were removed and structural repairs were undertaken. A structural report by Ellis + Moore dated 24 October 2019 covers damage to the portico roof and proposals for repairs.

Record photo from 1990. First floor north wall

Undated record photo (assumed 1990) at ground floor, north wall, showing work to first floor joists

Record photo from 1990. First floor, north and west walls showing elbow ties

3.0 Comments on the Existing Structure

We noted some areas of previous remedial work to the external brickwork, e.g., on the east elevation, photo 4, and minor cracks to the internal finishes, e.g., photo 8. The cracks we saw do not appear to be structurally significant at present. As part of any future work to the building we suggest some local removal of these damaged finishes is undertaken to confirm if any structural repairs are required.

We noted an area of damp to the vault below the portico, photo 7 and assume this will be addressed by other members of the project team.

We have been asked to comment on the local failure of ceiling finishes to the underside of one of the rooms at first floor level in 2018. A structural report by Hockley and Dawson, dated June 2018, noted the failure was due to the breaking of the 'key' between the lime plaster and the timber laths. In some of the areas we saw during our visits we also noted the plaster key is damaged, as can be seen in photos 9 and 10. The damage may possibly be due to the installation of building services directly above the ceiling finishes within the floor void.

Based on what we have seen, we agree with Hockley and Dawson's conclusion that the local failure of the ceiling finishes is due to damage to the finishes rather than as a result of excessive movement of the floor structure. Any remedial work to repair and stabilise the finishes will be specified by the architect. On other similar projects this has involved the lifting of the floor boards to inspect the ceiling finishes followed by the application of a new bonding layer to enhance the connection between the plaster and timber laths.

The City of London's brief asks for an assessment of the loading capacity of the first floor. We were able to measure the floor structure in a few areas and have used this information to carry out an assessment of the theoretical capacity of the timber floor. Reasonable assumptions, based on past projects to similar buildings, have been made about the structural grade of the timbers. This has found that the timber joists have a greater capacity than the primary beams, as is usual for floor structures like this. Overall, the calculations indicate the first floor can support a uniformly distributed imposed load of 1.5kN/m^2 which is equivalent to two average-weight adults every square metre.

The Story Room is the largest room at first floor level and has a floor area of approximately 26m^2. There are a number of tables and items of furniture in this room which means the 'free' floor area is likely to be around 20m^2. Based on the calculation noted above it is structurally feasible to have up to 40 people who are evenly distributed in this room. Other issues, in particular compliance with fire regulations, may impose a lower limit on the number of occupants.

4.0 Conclusions

Overall, the structure appears to be in a reasonable condition for its age and type of construction.

Structural repairs, including work to the first floor joists and elbow ties to enhance the bond of masonry walls were carried out around 1990 as part of a major refurbishment of the building. There are local hairline cracks to some internal wall finishes at first floor level which are not currently of structural significance. The cracks can be visually monitored by the building occupier so that any significant changes are identified and investigated at an early stage.

There were no obvious signs of structural issues in the small areas of the first floor structure that we saw during our two visits. Calculations have confirmed the floor structure is capable of supporting a uniformly distributed imposed load of 1.5kN/m^2. This is equivalent to the design load for modern residential use and seems reasonable and appropriate for the scale and use of the building.

Non-structural repairs are required to the ceiling finishes to address damage of the plaster key to the timber laths.

Appendix 1 - Photographs

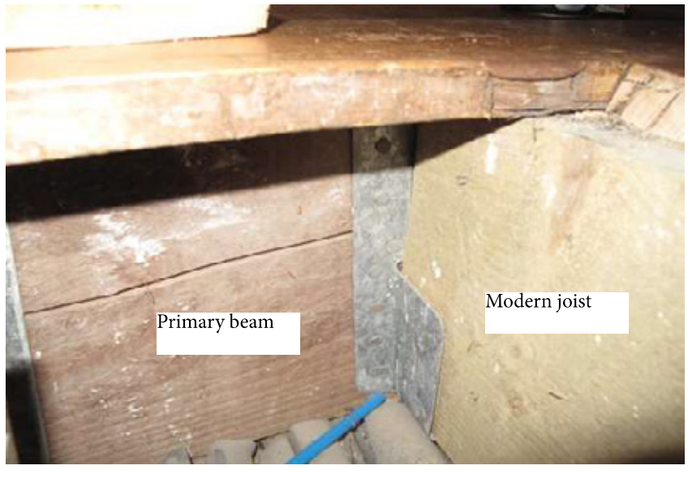
1. West elevation

2. South and West elevations

3. East elevation

4. East elevation showing areas of previous work to the brickwork

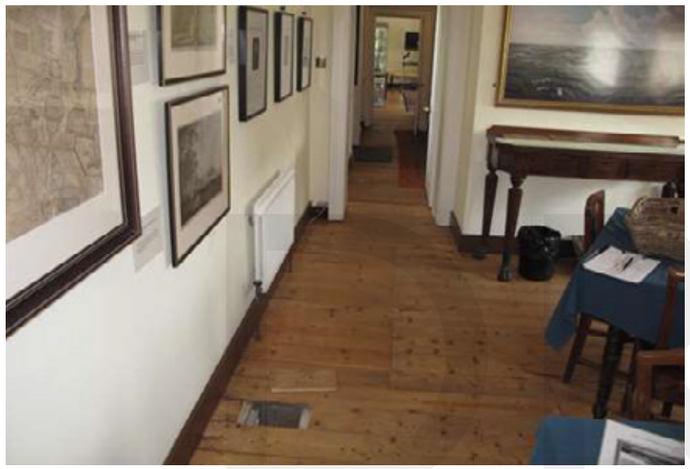
5. Upper ground floor, looking south



6. Detail of upper ground floor structure

7. Vault below entrance portico showing areas of water ingress

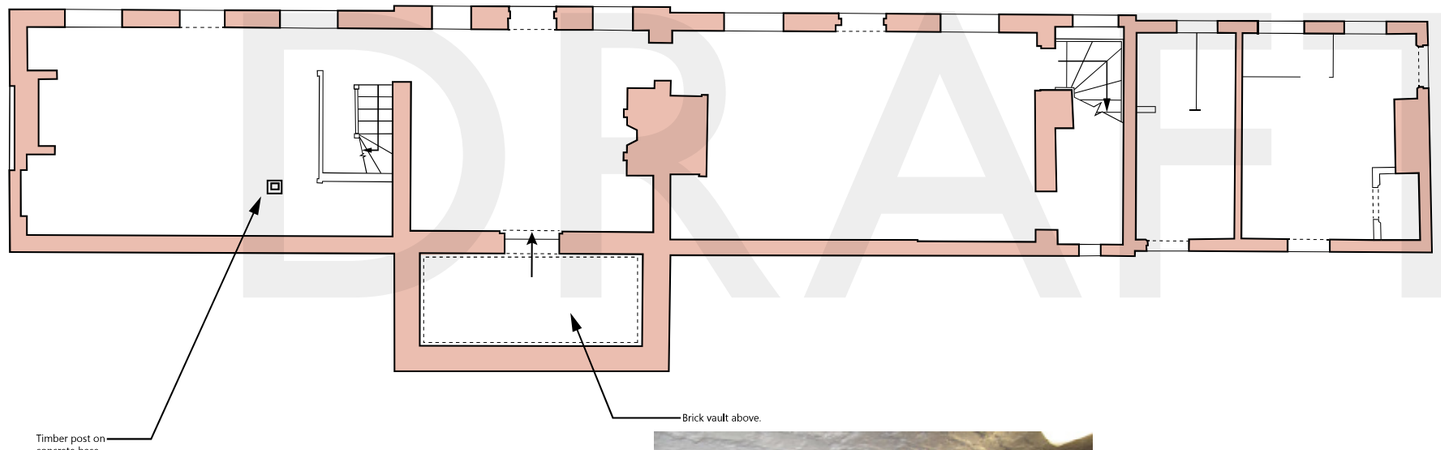
8. Upper ground floor; crack to finishes



9. Access point

10. View into access point showing plaster debris from damaged key to timber

Appendix 2 - Structural drawings



REV	DESCRIPTION	DATE	BY	AUTH
P2	Minor Updates	19-09-23	NA	ST
P1	Issued for Information	24-02-23	NA	ST

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PROJECT
The Temple at Wanstead Park

TITLE
Existing Structure Lower Ground Floor Plan

DATE	DRAWN	AUTHORISED	PROJECT NO.	DRAWING NO.	SCALE @ A3	REV
Feb'23	NA	ST	283	01	1:100	P2

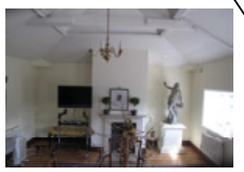
Hairline cracks to finishes.

Crack to finishes.

Damaged / poor key to ceiling finishes.

200 deep x 300 wide primary timber beams.

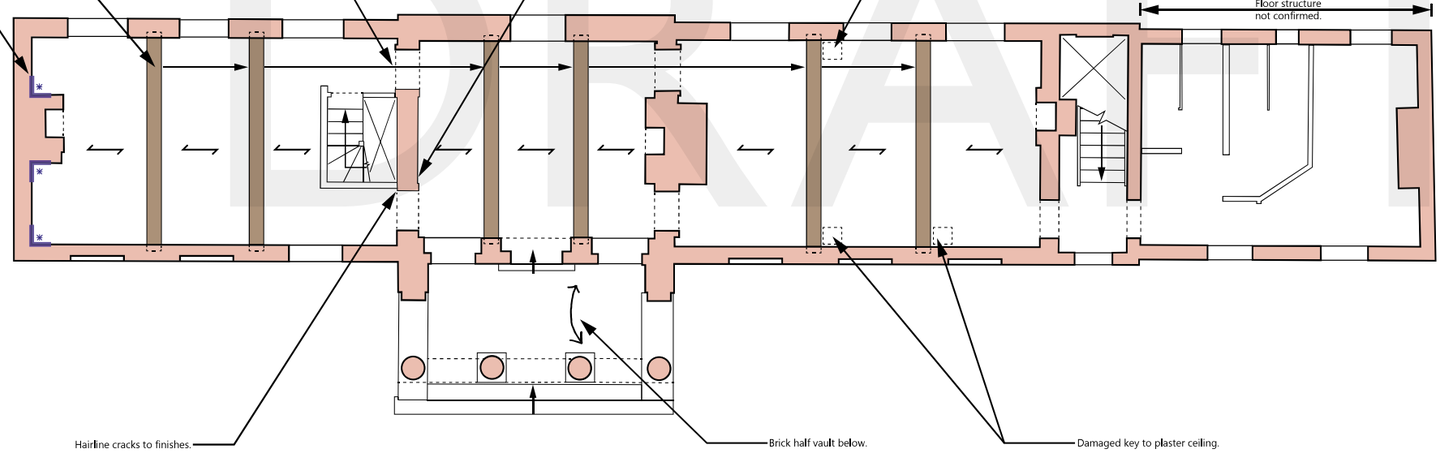
Hairline cracks to finishes.



KEY:

= Direction of span 250 x 90 s/w joints approx. 350 c/c.

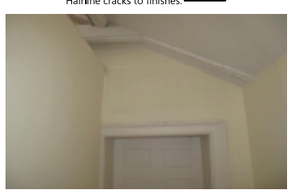
* = 4 No. RC elbow ties - based on 1990 photos.



Hairline cracks to finishes.

Brick half vault below.

Damaged key to plaster ceiling.



REV	DESCRIPTION	DATE	BY	AUTH
P2	Updated After Localised Opening Up	19-09-23	NA	ST
P1	Issued for Information	24-02-23	NA	ST

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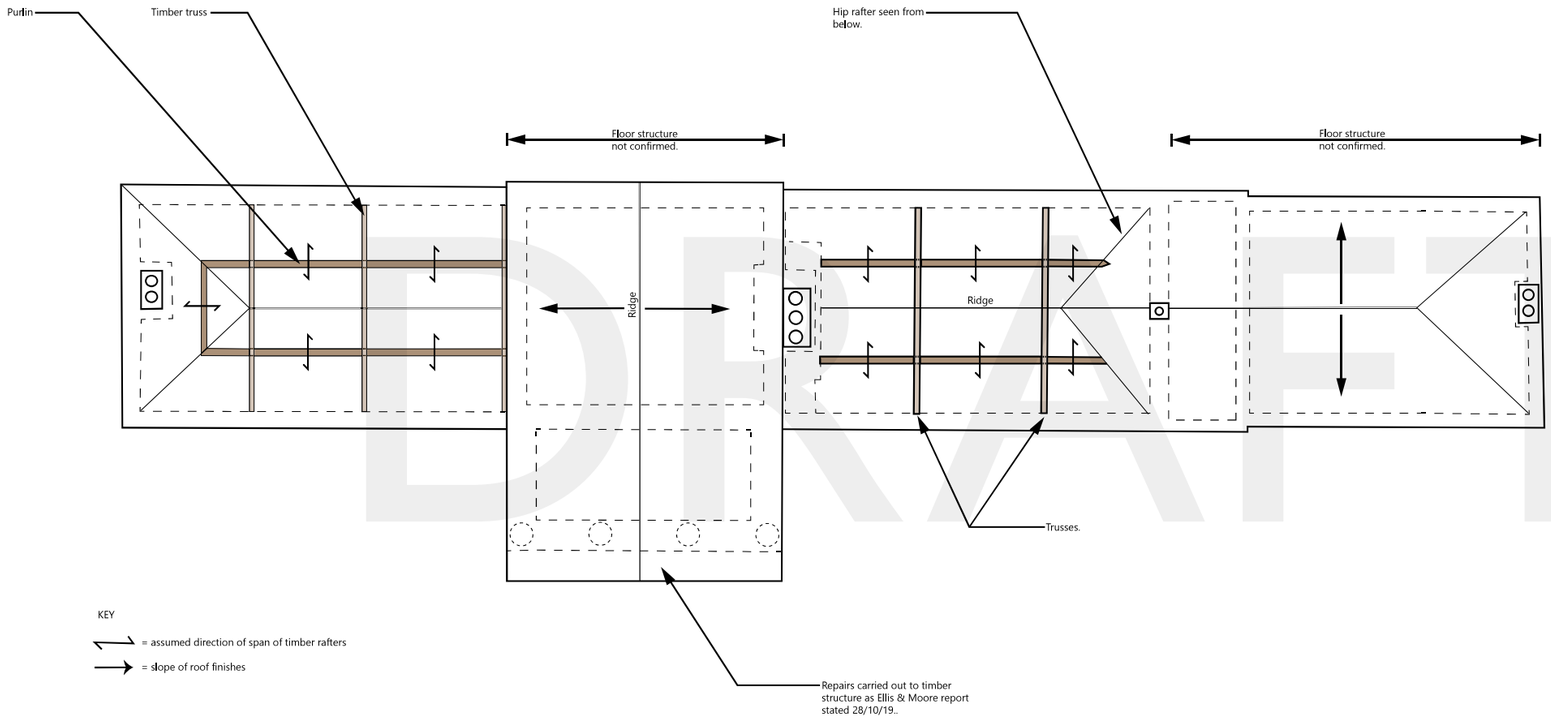
PROJECT: The Temple at Wanstead Park

TITLE: Existing Structure Upper Ground Floor Plan

DATE	DRAWN	AUTHORISED	PROJECT NO.	DRAWING NO.	SCALE @ A3	REV
Feb'23	NA	ST	283	02	1:100	P2



REV	DESCRIPTION	DATE	BY	AUTH
P2	Minor Updates	19-09-23	NA	ST
P1	Issued for Information	24-02-23	NA	ST

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PROJECT	TITLE
The Temple at Wanstead Park	Existing Structure Roof Plan

DATE	DRAWN	AUTHORISED	PROJECT NO.	DRAWING NO.	SCALE @ A3	REV
Feb'23	NA	ST	283	03	1:100	P2

Appendix 3 – Structural Calculation

Calculation Sheet					
Project	The Temple, Wanstead Park	Date	13.9.23	Page	1
Job No.	283/02	By/ Checked	[illegible]	Rev	

Stand Consulting Engineers

1ST FLOOR LIKELY CAPACITY

BEAMS

4.2m

JOISTS - MAX SPAN = 2.6m.

PART PLAN

BEAM = 200 DEEP x 300 WIDE

ORIGINALLY - ASSUME C30 GRADE. (USE E MEAN)

JOISTS 200 x 75 @ 350 c/c WOODEN - ASSUME C24

G=11kN/mm²
E MIN = 8200N/mm²
E MEAN = 12300
G = 7.5kN/m
E MEAN = 10800N/m

DEAD LOAD = 0.5kN/m² } 2kN/m²
IMPOSED LOAD = 1.5 kN/m² }

CHECK JOISTS BM = (2×0.35)×2.6²/8 = 0.6kNm

M/Z = 1.2N/mm² OK

δc 5/384 (2×0.35)×2600⁴ / 10800×I = 0.77mm

δallow = 0.003×2600 = 7.8mm OK

CHECK BEAM DL+IL = 2kN/m²

AVERAGE LOADED WIDTH = 2.0m + SIDE 2.2m

BM = (2×2.2)× 4.2²/8 = 9.7kNm

M/Z = 4.8N/mm² OK

δc 5/384 2×2.2×4200⁴ / 12300×I = 7.2mm

δallc = 0.003L = 12.6mm OK

DRAFT

Prepared by: Stuart Tappin
Reviewed by: Robert Walton
Date: 8 December 2023
Project No. 283/02
Revision: Final