

DRAFT FOR REVIEW

Technical Due Diligence for Engineering Services

Example Park, Sample Way, Sampletown

Prepared by Example Consulting Ltd
for Example Property Holdings Ltd

Synthetic sample: the building, client, people and figures in this report are fictional.





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Document Revision

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Not yet signed off		

Drafted in Report Metric from site notes, voice recordings and photos captured in Note Metric. Each recommendation lists its source (photo number and recording time). A named reviewer checks every item and enters every cost before the report is signed off and issued.



1 Executive Summary

Example Consulting Ltd was appointed by Example Property Holdings Ltd to carry out a technical due diligence inspection of the mechanical, electrical and public health (MEP) services at Example Park, Sample Way, Sampletown, in connection with the proposed purchase of the freehold.

From a building services point of view we have found nothing that should stop the purchase. The services were installed between 2019 and 2021 and are in good or fair condition. Most of the points below are overdue tests and missing records, which are low cost and should be cleared before or soon after completion. The points we consider most significant are:

1. No periodic electrical inspection has been carried out since completion. The first one was due after five years and should be carried out now.
2. The fire alarm was last serviced eight months ago, longer than the six months recommended. A service should be arranged now.
3. A dead leg remains on the cold water pipework where a fourth floor tea point was removed. It should be removed now, and the 2021 water risk assessment reviewed.
4. No air conditioning inspection report was provided for the VRF systems. An inspection should be arranged now.
5. The batteries in the self contained emergency lighting are about six years old and likely to fail a full duration test. Replacement and a full test are needed within a year.
6. There is no record of a load bank test on the standby generator in the last twelve months. One should be carried out within a year.
7. The smoke detectors reach about ten years old in 2030 and their replacement should be planned within five years.
8. The boilers, VRF systems, air handling unit and switchgear are within their expected life. We do not expect them to need replacing within five years; the air handling unit will need a mid life overhaul.

The recommendations total £104,150 over five years: £9,100 immediate, £11,550 within the first year and £83,500 in years two to five. Costs are budget allowances entered by the reviewer; see section 5.

This report is based on a non-intrusive, visual inspection and a desktop review of the information provided. No equipment was tested, no building elements were opened up and no design checks were carried out. Only part of the operation and maintenance manuals was available to us.



2 Introduction

This report has been prepared for Example Property Holdings Ltd for the proposed acquisition of Example Park. It covers the building services only; the building fabric is reported separately.

The MEP services were inspected by J. Ellis of Example Consulting Ltd on 14 October 2026, during working hours with the building occupied. The weather was overcast and showery, around 11 degrees. The main plant room, electrical service room, risers, roof plant platform, one office floor of each type, the office wing and the service wing were accessed.

Condition and remaining life are judged from what we saw, the ages on data plates and the indicative economic life tables that accompany CIBSE Guide M (2023). The scope and layout of the report have regard to the RICS professional standard Technical due diligence of commercial property (1st edition, reissued April 2023). The guidance and standards referred to are listed in section 8.

Each recommendation carries a rating and a timescale:

Rating	Meaning
1 Satisfactory	Normal maintenance only.
2 Repair or replace, not urgent	Repair or replacement needed, not urgent.
3 Urgent or serious	Act now or investigate further.

Timescale	Meaning
Immediate	Now, before or on completion.
Year 1	Within the next twelve months.
Years 2 to 5	Within two to five years, to be planned.



3 Engineering Services

3.1 General

Example Park is a single connected property completed in 2020. It comprises a six storey buff brick main office block (Photo 1), a two storey red brick office wing at the front (Photo 16) and a single storey metal clad service wing at the rear with two loading doors (Photo 21). The gross internal area is about 8,000 m²: 6,000 m² in the main block, 900 m² in the office wing and 1,100 m² in the service wing.

The main services are:

- Gas fired condensing boilers serving radiators, the air handling unit and the calorifier
- VRF comfort cooling and heating to the main block, and a split unit in the office wing
- An air handling unit with heat recovery serving the main block
- Mains fed cold water storage with a booster set; a calorifier and local electric water heaters
- LV supply from a dedicated substation, main switchgear and metered distribution boards
- LED lighting throughout, with self contained emergency lighting
- Addressable fire alarm, dry riser, two passenger lifts and a standby generator

The services are about six years old and in good or fair condition, consistent with their age. They appear to be maintained, and the plant rooms are clean and tidy. We found no plant that needs replacing within five years other than the items in section 5. The issues are mainly overdue statutory tests and missing records.

3.2 Heating

Two wall hung gas condensing boilers in the main plant room, installed in 2020 (Photo 2), serve low temperature hot water to perimeter panel radiators (Photo 12), the heating coil in the air handling unit and the calorifier. Both boilers were running at the time of our inspection, with minor casing scuffs and some tarnishing of the exposed pipework, consistent with their age.

The boilers and heating system are well within their expected life. We do not expect works within five years, subject to annual servicing. They will approach the end of their expected life in the mid to late 2030s, when heat pumps should be considered, or sooner if needed to meet the proposed EPC B standard for rented buildings from 2031.

3.3 Comfort Cooling

The main block office floors are served by VRF heat recovery systems installed in 2020, with four condensing units on the roof plant platform (Photo 8) and four way ceiling cassettes (Photo 10). The systems use R410A refrigerant.

The units are in good condition, with light dust on the coil fins and slight fading of the casings. We do not expect replacement within five years. R410A is a high global warming potential refrigerant; under the GB F-gas rules its supply is being phased down and it is becoming more expensive to obtain for servicing, which should be borne in mind when the systems are replaced.

No air conditioning inspection report was provided. Systems of this size must be inspected at intervals of not more than five years, so an inspection is now due and should be arranged. The F-gas register and leak test records should also be requested.

The office wing meeting room has a wall mounted split unit (Photo 17), in good condition.



3.4 Ventilation

The main block is ventilated by an air handling unit with heat recovery in the main plant room (Photo 5), supplying and extracting through ductwork in the risers. It is in fair condition, with scuffs to the access panels and light dust at the duct seams. A mid life overhaul of the fans, drives and controls is usually needed at around ten years and should be planned within five years. Filter change records were not on site and should be requested.

WC extract is by fans discharging through galvanised cowls on the main roof (Photo 9). Water was standing on the roof membrane around the cowl upstand at the time of our visit. This may follow recent rain, but the falls and outlets around the upstand should be checked by the building surveyor within a year.

3.5 Controls

The boilers, pumps and air handling unit are controlled by a building management system with a head end computer in the main plant room and outstations in the plant areas. The VRF systems have their own central controller. The system appeared to be operating normally; we did not test its functions. The head end computer and software are likely to need upgrading within five years.

3.6 Domestic Water

The incoming mains water supply enters the main plant room and fills a sectional GRP cold water storage tank, from which a duplex booster set serves the building (Photo 4). Both are in good condition.

Hot water for the main block is from a calorifier heated by the boilers, with a pumped return (Photo 3). The office wing kitchenettes have local electric storage water heaters (Photo 18). One shows limescale at a pipe joint below the heater, which should be remade at the next service. The electric water heaters have a shorter expected life than the central plant and their replacement should be planned within five years.

A tea point on the fourth floor has been removed during an occupier's fit out, leaving a dead leg on the cold water pipework. It should be cut back to the main as a matter of urgency. The water risk assessment provided is dated 2021 and has not been reviewed since; it should be reviewed now and the change recorded.

3.7 Drainage

Above ground drainage is in PVC and is in fair condition, with no leaks seen. Below ground drainage was not inspected.

3.8 Natural Gas

The gas meter is in an external housing in the rear service yard, with pipework to the main plant room. A gas schematic is displayed in the plant room. The installation is in fair condition and no works are expected within five years.

3.9 Low Voltage Infrastructure

The property is supplied from a dedicated substation owned by the distribution network operator. The main LV switchgear, a five panel assembly with metered outgoing ways, is in the electrical service room (Photo 6). It feeds distribution boards on each floor, which have up to date circuit charts (Photo 7). The installation is in good condition.

The electrical installation certificate is dated 2020 and recommends the first periodic inspection after five years. No electrical installation condition report has been carried out since, so the test is overdue and



should be carried out now. A thermographic survey of the switchgear under load within a year is also recommended as good practice.

A standby diesel generator in an acoustic enclosure in the rear service yard supports the life safety systems (Photo 24). It is in fair condition, with some fading of the enclosure coating and rain streaks below the louvres. No load bank test record for the last twelve months was available; a test and service should be carried out within a year.

3.10 Small Power

Small power on the office floors is distributed through floor boxes in the raised floor; common areas and the service wing have wall mounted sockets. The installation is in good condition and we do not expect expenditure within five years.

3.11 Lighting and Emergency Lighting

Lighting is LED throughout: recessed panels on the office floors (Photo 11), high bay pendants in the service wing (Photo 22) and battens in the service corridors (Photo 23), where the diffusers are slightly yellowed at the ends and can be replaced within five years. Otherwise the lighting is in good condition and should not need replacing within five years.

Emergency lighting is by self contained fittings and exit signs (Photo 14). The monthly tests are logged, but there is no record of the annual full duration test for 2026. Batteries in self contained fittings commonly last around four to five years, so at six years they are likely to fail a full duration test. Battery replacement and a full test should be carried out within a year.

3.12 Fire Protection

3.12.1 Fire Detection and Alarm

The building has an addressable fire detection and alarm system, which appears to be a category L2 system, with the panel at the ground floor entrance (Photo 13). The panel showed normal operation at the time of our visit. The service label shows the last service eight months ago; BS 5839-1 recommends servicing at intervals of not more than six months, so a service is overdue and should be arranged now.

The detectors were installed in 2020. Manufacturers commonly recommend replacing smoke detectors at around ten years, so their replacement should be planned within five years. The panel and cabling are suitable for retention, subject to routine servicing.

3.12.2 Dry Riser

A dry riser serves the main block, with the inlet on the front elevation of the office wing (Photo 19). The inlet cabinet paint is faded at the edges, but the couplings and caps are intact. The latest test certificate was not available and should be requested.

3.13 Lifts

A lift specialist survey was not part of our instruction. The main block has two 13 person passenger lifts serving all floors, installed in 2020 (Photo 15). They were operating normally and are in good condition, with fine scratches at hand height. A thorough examination report under LOLER dated June 2026 was seen, with no defects noted. No works are expected within five years.



3.14 Security and Access Control

External CCTV cameras cover the forecourt and service yard (Photo 20) and are in good condition. They reach about ten years old in 2030 and their replacement should be planned within five years. Access control on the entrances and lift lobbies is specific to the current occupier and has been excluded from the costs.

3.15 Data Connectivity

Two diverse telecoms intakes enter the main block and serve a ground floor comms room, with cabling in the risers. This gives good resilience for future occupiers.

3.16 Lightning Protection

A lightning protection system is installed, with conductor tape on the main roof parapet and down conductors to earth. It is in fair visual condition. The latest test certificate was not available and should be requested.

3.17 Electric Vehicle Charging

Six 7 kW charge points were installed in the car park in 2021 and are in good condition. They reach about ten years old in 2031 and their replacement should be allowed for within five years.



4 Maintenance and Statutory Records

The property is maintained by a mechanical and electrical contractor under a planned maintenance contract, with specialist contractors for the lifts, fire alarm and generator. The plant rooms were clean and tidy and the level of maintenance appeared good. We reviewed the records held on site. The following were not available and should be requested:

- Complete operation and maintenance manuals and as-built drawings
- Electrical installation condition report (none since the 2020 certificate)
- Fire alarm service record for the last six months
- Emergency lighting annual duration test certificate for 2026
- A reviewed water risk assessment (the one provided is dated 2021)
- Air conditioning inspection report, F-gas register and leak test records
- Generator load bank test record for the last twelve months
- Air handling unit filter change records
- Dry riser and lightning protection test certificates
- Twelve months of energy consumption data and the current EPC



5 Costs

The costs below are budget allowances entered by the reviewer, at current prices, excluding VAT, professional fees, contractor preliminaries and contingency. Totals are calculated from the schedule in section 5.2.

5.1 Cost Summary by Element and Timescale

Element	Immediate	Year 1	Years 2 to 5	Total
Electrical	£4,500	£3,000		£7,500
Fire protection	£650		£24,000	£24,650
Domestic water	£1,750	£250	£4,800	£6,800
Comfort cooling	£2,200			£2,200
Emergency lighting		£7,500		£7,500
Ventilation		£800	£14,000	£14,800
Controls			£6,500	£6,500
Security			£18,000	£18,000
EV charging			£15,000	£15,000
Lighting			£1,200	£1,200
Total	£9,100	£11,550	£83,500	£104,150

5.2 Schedule of Recommendations

Every recommendation lists the evidence it was drafted from: the photo number and the time in the site recording.

Ref	Element	Recommendation	Rating	Timescale	Budget	Source
R1	Electrical	Carry out the first periodic electrical inspection and test (EICR), now overdue.	3	Immediate	£4,500	rec 00:31:10
R2	Fire protection	Arrange the fire alarm service, now overdue, and record it in the logbook.	3	Immediate	£650	Photo 13; rec 00:40:05
R3	Domestic water	Remove the dead leg left by the removed fourth floor tea point.	3	Immediate	£800	rec 00:26:40
R4	Domestic water	Review the 2021 water risk assessment and record the changes since.	2	Immediate	£950	rec 00:27:20
R5	Comfort cooling	Arrange the air conditioning inspection; no report was provided.	2	Immediate	£2,200	Photo 8; rec 00:18:30
R6	Emergency lighting	Replace the batteries in the self contained fittings and carry out a full duration test.	2	Year 1	£7,500	Photo 14; rec 00:37:15
R7	Electrical	Load bank test and service of the standby generator.	2	Year 1	£1,200	Photo 24; rec 00:52:40
R8	Domestic water	Remake the pipe joint showing limescale below the kitchenette water heater.	2	Year 1	£250	Photo 18; rec 00:47:55



Ref	Element	Recommendation	Rating	Timescale	Budget	Source
R9	Ventilation	Building surveyor to check the roof falls around the extract cowl upstand.	2	Year 1	£800	Photo 9; rec 00:21:10
R10	Electrical	Thermographic survey of the main LV switchgear under load.	1	Year 1	£1,800	Photo 6; rec 00:30:05
R11	Fire protection	Replace the smoke detectors at around ten years old.	2	Years 2 to 5	£24,000	Photo 13; rec 00:40:50
R12	Controls	Upgrade the BMS head end computer and software.	2	Years 2 to 5	£6,500	rec 00:24:35
R13	Domestic water	Replace the office wing electric water heaters at the end of their life.	2	Years 2 to 5	£4,800	Photo 18; rec 00:48:20
R14	Ventilation	Mid life overhaul of the air handling unit fans, drives and controls.	2	Years 2 to 5	£14,000	Photo 5; rec 00:15:40
R15	Security	Replace the external CCTV cameras and recorder at around ten years old.	2	Years 2 to 5	£18,000	Photo 20; rec 00:50:10
R16	EV charging	Replace the EV charge points at around ten years old.	2	Years 2 to 5	£15,000	rec 00:55:20
R17	Lighting	Replace the yellowed batten diffusers in the service corridors.	1	Years 2 to 5	£1,200	Photo 23; rec 00:54:05

Ratings are explained in section 2. rec = time in the site recording.



6 Enquiries and Further Investigations

6.1 Enquiries to the Vendor

We recommend that your solicitor raises the following enquiries with the vendor:

- a) Confirm whether the overdue electrical inspection and test will be carried out before completion, and provide the report.
- b) Confirm the date of the last fire alarm service and when the next is booked.
- c) Confirm whether the fourth floor dead leg will be removed and the water risk assessment reviewed before completion.
- d) Provide the air conditioning inspection report, F-gas register and leak test records, or confirm when the inspection will be done.
- e) Provide the generator load bank test and service records.
- f) Provide the emergency lighting test log and the 2026 annual duration test certificate.
- g) Provide the dry riser and lightning protection test certificates.
- h) Provide the complete operation and maintenance manuals and as-built drawings.
- i) Provide twelve months of energy consumption data and the current EPC.

6.2 Further Investigations

We recommend the following investigations. We do not consider it essential to complete them before exchange:

- a) Thermographic survey of the main LV switchgear.
- b) Building surveyor check of the roof falls around the extract cowl upstand.



7 Photo Schedule

7.1 Main Office Block



Photo 1: Main office block and office wing, front



Photo 2: Gas condensing boilers, main plant room



Photo 3: Calorifier, main plant room



Photo 4: Cold water storage tank and booster set



Photo 5: Air handling unit, main plant room



Photo 6: Main LV switchgear, electrical service room



Photo 7: Typical floor distribution board



Photo 8: VRF condensing units, roof plant platform



Photo 9: WC extract cowl, main roof



Photo 10: VRF ceiling cassette, typical office floor



Photo 11: LED panels, typical office floor



Photo 12: Perimeter panel radiator, office floor



Photo 13: Fire alarm panel, ground floor entrance



Photo 14: Exit sign, ground floor corridor



Photo 15: Passenger lift, ground floor lobby

7.2 Office Wing



Photo 16: Office wing, front



Photo 17: Split air conditioning unit, meeting room



Photo 18: Electric water heater, kitchenette



Photo 19: Dry riser inlet, front elevation



Photo 20: External CCTV camera

7.3 Service Wing



Photo 21: Service wing, rear service yard



Photo 22: LED high bay lighting



Photo 23: LED batten fittings, service corridor



Photo 24: Standby generator, rear service yard



8 Basis and Limitations

- The inspection was visual and non-intrusive. No equipment was tested, no covers or ceilings were removed and no building elements were opened up.
- No design checks or capacity calculations were carried out.
- Where information was given to us in writing or verbally, we have assumed it to be correct.
- Ages are taken from data plates, labels and the information provided, or estimated from the type and condition of the equipment.
- Costs are budget allowances at current prices, excluding VAT, professional fees, contractor preliminaries and contingency.
- Systems specific to the current occupier are excluded from the costs.
- Asbestos, below ground drainage and the building fabric are outside the scope of this report.

8.1 Guidance and Standards Referred To

Document	Published by	Used for
Technical due diligence of commercial property, 1st edition (reissued 2023)	RICS	Scope and layout of the report
CIBSE Guide M: Maintenance engineering and management (2023) and indicative economic life tables	CIBSE	Expected life of plant
SFG20 maintenance specification	BESA	Maintenance tasks and frequencies
BS 5839-1:2025 Fire detection and fire alarm systems	BSI	Fire alarm servicing
BS 5266-1:2025 Emergency lighting	BSI	Emergency lighting tests
BS 7671:2018+A2:2022+A3:2024 Requirements for electrical installations	IET and BSI	Electrical testing
Approved Code of Practice L8 and HSG274	HSE	Legionella control
Lifting Operations and Lifting Equipment Regulations 1998	Legislation	Lift examinations
GB F-gas regulations	Legislation	Refrigerant records and phase down
Energy Performance of Buildings (England and Wales) Regulations 2012	Legislation	Air conditioning inspections
Code of Quality Management (2019)	CIOB	Review and sign-off process

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