GDO6

GUIDES

Soft Landings & Handover – Appendix A



Document Control				
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А	Sept 20	UoL	Appendix A added to GD06 Soft Landings & Handover Design Guide	
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Prepared by:		
		BUILDING MANUALS AND BUILDING USEK

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BUILDING MANUAL PURPOSE

This building manual is an easily accessible focal point of current information for facilities management staff in this building. There are four main functions of this manual:

- Summary of the building
- Key reference point
- Source of information and training
- Energy management and conservation.

Summary of the building

This Buildings Manual provides a summary of all the key information about the building, including the original design details and information on its management. As this is only a summary it does not totally duplicate or replace the O&M manuals.

Key reference point

This manual can be regarded as the hub document that interlinks various other relevant documents and should provide key references to the detail held in the available O&M manuals, commissioning records and operational records. It should therefore be kept in an accessible and designated location within the building it is of reference to.

This manual should not be removed and if so only upon the approval of the facilities manager, whose key responsibilities are to ensure that:

- The Building Manual is correct and up-to-date at building handover as well as when passing on to a successor
- Tthe Building Manual is updated on an on-going basis including any changes to the building fabric, service, operation or management and should be signed and dated by the facilities manager
- Key facilities management staff are made aware of the information contained in the Building Manual
- The Building Manual is stored in its designated location at all times.

Source of information and training

The Building Manual provides a major source of information for anyone involved with the day-to-day operation and management of the building or anyone conducting any maintenance work on it or its building services. The Building Manual will be of significant use to new staff and external contractors or consultants and will be a key source of any staff training, site induction or orientation.

Energy management and conservation

This document sets the expectations of the energy policy and has information that enables the building facilities management staff to monitor their energy consumption and look at the potential for energy conservation.



BUILDING MANUAL UPDATES AND REVIEWS

This manual should be updated monthly/quarterly/6 monthly/annually (delete as necessary). Any changes to the document including removal or adding of pages should be recorded.

Review date	Description and updates/changes	Pages updated or removed	Facilities manager signature

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BUILDING MANUAL

BUILDING SERVICES INFORMATION

1.1 BUILDING CONSTRUCTION DETAILS

Construction details	Enter UPRN	Construction date
Unique Property Reference Number (UPRN)/Estate Building reference number		

1.2 BASIC BUILDING INFORMATION

Write a brief description of the building's function here. If it is a new build then include information about who was responsible for the design and construction.

Design and construction contacts

Architect	Company:
	Name:
	Tel number:
	Email:
M&E design consultants	Company:
	Name:
	Tel number:
	Email:
Principal contractor	Company:
	Name:
	Tel number:
	Email:

1.3 LEGAL OWNERSHIP INFORMATION

Information regarding the ownership lease and term dates can be included here including the schedule of any break clauses.

Legal ownership information



1.4 MULTI-TENANT OCCUPIER LIST

If the building is multi tenanted this information should be entered. Include who the tenant is and primary contact details including type of business activities if possible. Include the floor area occupied by the tenants and determine if they have temperature zone control of their environment. If the building is not tenanted delete section 1.4 and complete the building activities in 1.5.

Name of Tenant	Primary contact Phone number Location in building	Business activities	Floor area (m²)	Temp zone control present
Total Net Lettable Area Occupied (NLA) m ²				

1.5 BUILDING ACTIVITIES

Detail business activities carried out in the different areas. Include the floor area and determine if there is temperature zone control of the environment. Delete if the building is multi tenanted and the information is already provided in section 1.4.

Activity	Floor	Floor area (m²)	Temp zone control present

1.6 BUILDING MEASUREMENTS

Enter all of the building measurements, including the gross and net internal areas.

Gross internal area (G.I.A m²)	Enter gross internal area
Length (m)	
Width (m)	
Average floor height (m)	
Number of floors	

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1.7 BUILDING PLANS/LAYOUT

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More detailed building plans and schematics can be found at [state location].

[Insert basic plans for the building. If the building layout is complex and/or has multiple users consider a building layout for each area.]

General floor plan – First floor

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General floor plan – Ground floor





1.8 BUILDING ENVELOPE INFORMATION

Provide information on the building envelope and fabric used as part of the buildings' construction both internally and externally. Include any photographs of key structural elements and fabrics.

System list
External fabric and cladding
Internal fabric
Glazing
Building description

External fabric and cladding

Provide a description of the elements along with any key features or tips for effective management. Consider including the solar shading strategy and any management that is required.

Fabric description	Key features

Internal fabric

Follow format of external fabric. Consider including a description of the internal blinds or any internal solar shading that has been used.

Fabric description	Key features

Glazing

Follow format of external fabric. Consider including U-value ratings.



Building envelope equipment list

Once the systems have been identified, the equipment within these systems needs to be identified along the lines of the following table: (in larger properties this may exist elsewhere – if so then reference the location here). Include a reference to the file location for the Operation and Maintenance Manuals, for more detailed information.

Element description	Manufacturer/type	Quantity	O&M Ref

1.9 MECHANICAL BUILDING SERVICES

The following mechanical building services are present in the building and are explained further in this section. *Identify the mechanical systems that exist within the building (add or delete as appropriate)*.

System list
Heat generating plant
Cooling generating plant
Chilled water systems
Refrigeration systems
High temperature hot water systems
Low temperature hot water systems
Steam heating systems
Ventilation
Smoke evacuation systems
Gas installations

Heat generating plant

Provide a description of the system, a resilience diagram that will identify single points of failure, plant capacity, control strategy, settings, any safety features, energy or water saving advice and tips for effective operation.

System details	Description
Plant description and design intent	
Capacity of system	
Control strategy	
Operating setpoints	
Safety features	
Energy conservation considerations	
Tips for effective operation	



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Heat generating resilience diagram

[Insert resilience diagram here]

Subsequent mechanical building services

Follow format of heat generating plant for subsequent mechanical building services:

- Cooling generation plant •
- Chilled water systems •
- Refrigeration systems •
- High temperature hot water systems •
- Low temperature hot water systems •
- Steam heating systems •
- Ventilation systems •
- Smoke evacuation systems
- Gas installations.



Mechanical equipment list

Once the systems have been identified, the equipment within these systems needs to also be identified along the lines of the following table: (in larger properties this may exist elsewhere - if so then reference the location here).

Include a reference to the file location for the Operation and Maintenance Manuals, for more detailed information on plant and equipment.

Plant/equipment	Manufacturer/type	Quantity	O&M Ref

1.10 PUBLIC HEALTH SERVICES

Identify the public health services within the building and describe in a similar manner to that of mechanical services.

System list
Drainage above ground – foul
Drainage below ground – foul
Drainage – surface water
Rainwater systems – above ground
Water retention systems

System title

Provide a description of the system, plant capacity, control strategy, settings, any safety features, energy or water saving advice and tips for effective operation.

System details	Description
Plant description and design intent	
Capacity of system	
Safety features	
Energy conservation considerations	
Tips for effective operation	



Once the systems have been identified, the equipment within these systems needs to also be identified along the lines of the following table: (in larger properties this may exist elsewhere - if so then reference the location here).

Include a reference to the file location for the Operation and Maintenance Manuals, for more detailed information on plant and equipment.

Plant/equipment	Manufacturer/type	Quantity	O&M Ref

Subsequent public health services

Follow format of heat generating plant for subsequent public health services:

- Drainage systems
- Domestic hot and cold water systems.

1.11 ELECTRICAL AND CONTROL SYSTEMS INFORMATION

Follow the same process for electrical and control systems as the previous mechanical services.

System list	
High voltage power systems	
Low voltage power systems	
Lighting installations	
Security systems (access, CCTV, intruder alarms)	
Uninterruptible Power Supply (UPS) systems	
Electricity generators	
Fire and smoke alarm systems	
Communication systems	
Public address/paging systems	
Lightning protection systems	
Information and communication technologies (ICT) installations	
Building management system	
Renewable power generation	



Electrical equipment list

Once the systems have been identified, the equipment within these systems needs to also be identified along the lines of the following table: (in larger properties this may exist elsewhere - if so then reference the location here).

Include a reference to the file location for the Operation and Maintenance Manuals, for more detailed information on plant and equipment.

Plant/equipment	Manufacturer/type	Quantity	O&M Ref

Subsequent electrical and control systems

Follow format of heat generating plant for subsequent electrical and control systems:

- High voltage power systems
- Low voltage power systems
- Lighting installations
- Security systems (access, CCTV, intruder alarms)
- Uninterruptible Power Supply (UPS) systems
- Electricity generators
- Fire and smoke alarm systems
- Communication systems
- Public address/paging systems
- Lightning protection systems
- Information and communication technologies (ICT) installations
- Building management system
- Renewable power generation.

1.12 SPECIALIST BUILDING SERVICES

If the building has any of the following services, identify them and provide information on their systems and equipment.

Element description	
Lifts	
Diesel oil storage	
Sprinkler system	

Lift plant

•	
System details	Description
Plant description and design intent	
Capacity of system	
Lift control room	
Safety features	
Tips for effective operation	

Specialist building services equipment list

Once the systems have been identified, the equipment within these systems needs to also be identified along the lines of the following table: (in larger properties this may exist elsewhere - if so then reference the location here).

Include a reference to the file location for the Operation and Maintenance Manuals, for more detailed information on plant and equipment.

Plant/equipment	Manufacturer/type	Quantity	O&M Ref

Subsequent specialist building services

Follow format of heat generating plant for subsequent specialist building services:

- Lifts
- Escalators
- Compressed air systems
- Sprinkler installations
- Medical gas systems
- Automated doors and windows
- Automated blinds



- Automated shading
- Access equipment and cradles.

1.13 MAINTENANCE STRATEGY AND HISTORY

Insert a summary of the building's maintenance strategy, include frequencies and those who provide the maintenance in the following table. This could be system level information if the building has no complex systems. However, larger more complex buildings may have a central maintenance system and reference can be made to that with an annual summary provided such as number of Planned Preventative tasks completed and number of reactive maintenance tasks completed. (Delete systems not applicable.)

Assets	Maintenance frequency	Responsibility
Heat generation plant		
Cooling generation plant		
Chilled water systems		
Refrigeration systems		
High temperature hot water systems		
Low temperature hot water systems		
Steam heating systems		
Ventilation systems		
Smoke evacuation systems		
Gas installations		
Drainage systems – above and below ground		
Domestic hot and cold water systems		
High voltage power systems		
Low voltage power systems		
Lighting installations		
Security systems (access, CCTV, intruder alarms)		
Uninterruptible Power Supply (UPS) systems		
Electricity generators		
Fire and smoke alarm systems		
Communication systems		
Public address/paging systems		

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Assets	Maintenance frequency	Responsibility
Lightning protection systems		
Information and communication technologies (ICT)		
Building management system		
Renewable power generation		
Lifts		
Escalators		
Compressed air systems		
Sprinkler installations		
Medical gas systems		
Automated doors and windows		
Automated blinds		
Automated shading		
Other		

Maintenance details	2009	2010	2011
Number of planned preventative maintenance (PPM's)			
Number of reactive maintenance			

1.14 MAINTENANCE HISTORY LOG

This section provides the opportunity to record major incidents or repairs that have had to be carried out on the building or its services. It is useful to log what went wrong, how it occurred and what procedures were taken to eliminate the problem.

System details	Description
Fault/problem	
Date occurred	
How/why	
Corrective action taken	
Who/at what cost	



1.15 STATUTORY INSPECTIONS

Use this section to store and keep track of all your statutory inspections and tests along with useful legislative compliance documents such as fire and asbestos risk assessments. (This is not a comprehensive list add and delete as necessary)

Inspection/certificate	lssue date	Expiry date
Mechanical		
Air conditioning energy inspection		
Chlorination certificates for drinking water systems		
Gas safety inspection		
Legionella risk assessment		
Pipework systems in pressure systems test		
Pressure vessels and systems examinations and tests		
Pressure vessels and systems written schemes of examination		
Source protection policy and licence to use water supplied by a borehole		
Water authority discharge of waste certificate		
Water tests log book		
Fire		
Dry risers		
Escape route pressurisation system		
Fire alarm test certificates		
Fire appliance certificates		
Fire dampers and shutters		
Fire hose-reel test certificates		
Fire risk assessment		
Fire training log book		
Log of smoke extract tests		
Sprinkler system test certificates		
Electrical		
CCTV system		
Electrical systems inspections including portable appliance testing		
Emergency lighting tests and examinations		
Lightning protection		
Public address		
Specialist		
Escalators		
Lifting equipment		
Lifting equipment reports of thorough examination		
Lift installation		
Miscellaneous		
Asbestos register (include any photographs where relevant)		
Asbestos risk assessment		
Noise risk assessment		
Notification to local authorities of installation of wet cooling towers and evaporative		
Record of waste disposal		
Refrigerant log of use and leak tests		



1.16 WRITTEN SCHEME OF EXAMINATION FOR PRESSURE SYSTEMS

Identify any systems that require a written scheme of examination to meet the pressure systems regulations and provide a reference to the schemes location.

Plant requiring written scheme of examination:

Element description	Location of written scheme	Renewal date

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2 EMERGENCY INFORMATION

Provide information on the buildings emergency operating procedures (EOP's) with details of who is responsible for specific roles and functions of the EOP. Include any diagrams or flow charts to enable easy understanding.

2.1 BUILDING CRITICALITY RATING

Provide information on the buildings criticality rating or any areas within the building that have been designated with a criticality rating so that the users of the Building Manual understand where the business's priorities are.

Zone	Location	Area (m²)	Function	Criticality Rating

If the building is large or complex and an Operations Manual exists covering the Emergency Operating procedures for the building do not duplicate, only provide a location where they can be found.

Location of emergency information

EOP description	State location of procedure	Date of next review

Emergency operating procedure

[Insert flow diagram here]



2.2 UTILITY ISOLATION

Detail the isolation procedures for all the building utilities include photographs where possible.

Electricity isolation

Provide information on how the building is supported by the national grid as well as any back up systems such as UPS and generators in place.

Insert a detailed procedure that should be followed in the event of a complete electrical shutdown. Use pictures to aid the illustration of the steps involved. If a procedure is in place for returning power after system failure use the same format.

Step	Details	Photo



Mains water supply isolation

Follow the format for electricity isolation and include the following information:

The incoming water service enters [name of building] from [location of water entry point].

Details	Photos

Gas isolation

Using the format above, detail the isolation procedure for the gas supply if it exists.

Details	Photos

Fuel oil isolation

Using the format above, detail the isolation procedure for the fuel oil supply if it exists.

Details	Photos



3 BUILDING UTILITY AND ENVIRONMENTAL INFORMATION

3.1 ENERGY AND ENVIRONMENTAL POLICIES

If the occupier has an energy and or environmental policy with relevance to the physical building, include any key details or reference the documents here.

Environmental rating (for example. BREEAM, LEED, Energy Star)

If the building has received an environmental rating during its design and build process, provide a copy of the certificate as well as where the accompanying report can be located for reference.

Environmental rating

If the BREEAM In Use standard has been applied to the building, provide any information and copies of the relevant certificates.

BREEAM In Use standard

Building energy performance

Provide the buildings target carbon dioxide emission rate (TER) and building emission rate (BER) here as well as a summary of the information used to calculate them where possible.

Target Emission Rate	Building Emission Rate

The buildings carbon dioxide emissions rate has been calculated on the following parameters:

Building carbon dioxide emissions calculation

Element	Description

Enter in the table below the Energy Performance Certificate (EPC) and or Display Energy Certificate (DEC) ratings awarded to the building and provide copies of the certificates in the statutory certificates section of this Building Manual. In addition provide details of where the accompanying recommendations or advisory reports can be located.

Energy Performance Certificate (EPC) and or Display Energy Certificate (DEC)

Energy Performance Certificate	Display Energy Certificate

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3.2 UTILITY PROVIDER DETAILS

Give full details of the utility provider, including name, customer reference number, contact details and out of hours contact information.

Electricity provider	Name:
	Customer reference number:
	Contact details:
	Out of hours contact information
Natural gas provider	Name:
	Customer reference number:
	Contact details:
	Out of hours contact information
Water provider	Name:
	Customer reference number:
	Contact details:
	Out of hours contact information
Other fuel provider (such as oil or biomass)	Name:
	Customer reference number:
	Contact details:
	Out of hours contact information
Telecommunications	Name:
	Customer reference number:
	Contact details:
	Out of hours contact information

Identify the locations and relevant information regarding the incoming utility supplies in the following table:

Utility service	Location
Electricity	
Natural gas	
Mains water	
Other fuels	
Telecommunications	



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On site LZC energy technology information

Include any information on Low or Zero Carbon technologies on site. This could include photovoltaic solar panels, solar thermal heating, wind turbines, ground or air source heat pumps, biomass boilers or Combined Heat and Power.

LZC technology	Location	Installation date

3.3 ANNUAL BUILDING ENERGY CONSUMPTION

Use the tables below to record and compare annual energy consumption of the building as well as enabling CO₂ emissions to be recorded. The conversion figures in the table below are from DEFRA's 2009 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting Document, updated 30th Sept 2009. The typical benchmarks can be sourced from CIBSE TM 46. In the example below, general office benchmarks have been used.

Building energy consumption 2009							
Gross inte ar	ernal floor ea	1254 m ²		kg CO₂ eq/m²			
Fuel	Total kWh	CO₂eq conversion *	Total kg CO ₂	Actual	Design estimate	Typical benchmark	Good practice benchmark
Gas							
Electricity							
Fuel Oil							
Other							
Total							

* Includes the CO₂ equivalent conversion for methane and nitrous oxide

Refer here to the file location of more detailed building energy data if it is available.

3.4 ENERGY CONSERVATION

Green lease

If the building is multi-tenant and there has been a green lease agreed, capture any key details here and identify the location of the full lease for further information.

Details	Location



Simple energy guidelines

Provide a list of simple guidelines that occupiers will need to know to prevent energy wastage and to help with improving the energy efficiency of the building.

Details		

Enter information and details regarding the energy monitoring and targeting strategy. Information on the buildings energy management strategies can include automated lighting times, energy efficient lighting, heating temperature set points, ventilation strategy and zone controls.

Energy monitoring and targeting strategy

Details

Provide a historical record of the sub-metering. If this data is captured and recorded elsewhere then reference where this information can be found.

Historical record of the sub-metering

Details

For complex buildings, if the critical IT is supported by UPS, it may be worthwhile to separate the energy consumption out to show the historical trend.

UPS energy consumption historical trend

Details

Special features such as Feed-in Tariffs (FITs), interruptible tariffs and other special tariff arrangements should be recorded here.

Feed-in Tariffs (FITs)

Details

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Insert your own charts or update the following example charts to record your annual electricity, gas and water consumption.

Annual electricity consumption

Annual electricity consumption					
Year	kWh	kWh/m²	CO ₂ conversion	kg CO₂	kg CO ₂ /m ²

This graph is for the above annual electrical consumption in kwh/m². (Replace with your own chart).





Annual photovoltaic electricity generation

If Low or Zero Carbon technologies are fitted with a meter to record how much energy they are contributing to the buildings energy, use table below to keep a record.

Low zero carbon technology						
Year	kWh CO ₂ conversion kg CO ₂					

ENERGY



This graph shows the above annual (enter technology) electrical generation in kwh/m². (*Replace with your own chart*).





Annual gas consumption

Provide annual summary of the gas consumption for the building. Check conversion factor from m^3 to kWh with your gas supplier.

Annual gas consumption							
Year	m ³	kWh	Conversion. factor	kWh/m²	CO₂ conversion	kg CO₂	kg CO₂/m²

This graph is for the annual gas consumption in kwh/m². (Replace with your own chart).





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Annual water consumption

Provide annual summary of the water consumption for the building:

Annual water consumption					
Year	m ³	m³/m²	CO ₂ conversion	kg CO ₂	kg CO ₂ /m ²

This graph is for the annual water consumption in cubic metres per m². (*Replace with your own chart*).



Figure 4: Annual water consumption

Meters and sub-meters schedule

Update table to reflect your meters. Where there are large quantities of meters where a computer monitoring system is in place details of this system would be appropriate. Mark the locations of the meters on the building to enable quick reference.

Utility	Main or sub- meter	Meter Number	Units	Location	Purpose of meter or end use being measured	Notes



3.5 REFRIGERANTS AND F GASES

This is an annual summary of the refrigerant and F gases used on site along with the location of the plant. (Insert your systems data in the table).

Plant items	Location	Quantity of gas in system (kg)

Annual refrigerant usage summary

Provide annual refrigerant usage summary (Insert your systems data in the table).

Plant items	Quantity of gas kg used				



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4 WATER MANAGEMENT

If the building has any water management strategies in place, provide details in this section. Also include any grey water and or rainwater recycling systems that may be in place. It is important to also include information on what the water from these systems is used for. Include information on any leak detection systems installed and water efficiency measures that have been installed such as low flush toilets.

4.1 WATER STRATEGIES

Metering

Plant items	Location	Comments	Date	Next water test date

Grey water

Collection areas	Areas served	Litres per year	Comments

Rain water harvest

Collection areas	Areas served	Litres per year	Comments



4.2 LEAK DETECTION

Include information in order to increase the awareness of the impact from water leaks and importance of reporting these (see section 8 of Building User Guide). Information should include details on domestic water leaks, hot water leaks, chilled water leaks, usage patterns and flow rates monitored to identify leaks/wastage.

Domestic water leaks

Hot water leaks

Chilled water leaks

Usage patterns



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5 MATERIALS AND WASTE MANAGEMENT

Detail the waste management facilities that are provided such as the recycling bins for paper and food waste.

Recycling strands				
Insert photo	Insert photo	Insert photo		

Waste type	Bin	Dates of collection



6 TRANSPORT FACILITIES

State the number of parking bays, cycle racks etc and describe the changing room facilities and other items that relate to the buildings facilities that provide transport facilities to the occupiers. Concentrate the information at a technical level and describe the maintenance requirements of these facilities.

Parking bays and cycle racks

Description	Quantity	Locations
Open parking bays		
Disabled parking bays		
Visitor parking bays		
Covered cycle racks		



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7 REFIT AND REARRANGEMENT CONSIDERATIONS

7.1 KEY DESIGN AND OPERATIONAL ISSUES

The aim of this section is to draw out important information from the O&M's, CDM Health and Safety file or design documents that need to be clearly understood by an operator to ensure the building is operated in the most energy efficient way. For instance a naturally ventilated building may have a night set back routine that opens windows automatically. If that design concept is not passed on correctly then security teams can override the windows and the natural ventilation strategy is defeated. Provide a summary list and where more detailed information can be found.

System criteria	Design specification
External design conditions	
Internal design conditions	
Outside air provision	
Lighting and power load densities for cooling base load	
Electrical design criteria for office area	
Lighting design levels	
Insulation continuity	
Air infiltration	
Key interactions between systems	
Night setback temperature	

7.2 KEY DESIGN INFORMATION

Capture any important design factors that the building occupants need to know to enable optimal building operation. Also identify information about the impact of refits or rearrangements such as installing partitioning in an open plan area without modifying the air conditioning or natural ventilation.

Key design and operational issues		
Description of key issue	Key things an operator must know about the design or operational issues	



7.3 HANDOVER INFORMATION

Include key details of the handover such as the end of the defects liability period and a list of the documentation provided.

Handover details		
Date of Handover		
End of defects liability		
Handover managed by		
Documents that were handed over	List	Locations

7.4 MAJOR CHANGES TO BUILDING SERVICES

When refurbishment or major building infrastructure changes occur record them in the relevant sections above and update the relevant equipment list details.

Date of work	Description of alteration	Pages added /updated



8 **REPORTING PROVISION**

Detail who should be contacted where enquires arise about the building. It may be appropriate to put an organisational chart of the facilities team setting out roles and responsibilities in this section.

Organisational chart

8.1 BUILDING CONTACTS

Enter details of all the contacts you feel are relevant in this manual and delete those that don't apply.

Owner/Landlord	Name:
	Telephone:
	Email:
Business manager	Name:
	Telephone:
	Email:
Facilities manager	Name:
	Telephone:
	Email:
Security manager	Name:
	Telephone:
	Email:
Building health and safety advisor	Name:
	Telephone:
	Email:
Building fire officer	Name:
	Telephone:

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	Email:
Environment/energy manager	Name:
	Telephone:
	Email:
Security alarm maintenance	Name:
service provider	Telephone:
	Email:
Fire alarm service provider	Name:
	Telephone:
	Email:
IT maintenance service	Name:
provider	Telephone:
	Email:
M&E maintenance service	Name:
provider	Telephone:
	Email:
Lift maintenance service provider	Name:
	Telephone:
	Email:
Waste/recycling service	Name:
provider	Telephone:
	Email:
Cleaning service provider	Name:
	Telephone:
	Email:
Catering service provider	Name:
	Telephone:
	Email:

8.2 **OPERATING HOURS**

Enter information on the buildings operational times, so that scheduling works that need to be contracted for out of hours can easily be arranged.

Operating hours



Plant operating hours

System		
Heating	Operating hours	
	Winter setpoint	
	Summer setpoint	
	Night set-back	
Ventilation	Operating hours	
	Winter setpoint	
	Summer setpoint	
	Night set-back	
Air conditioning	Operating hours	
	Winter setpoint	
	Summer setpoint	
	Night set-back	
Zone 1 Air conditioning	Operating hours	
	Winter setpoint	
	Summer setpoint	
	Night set-back	
Zone 2 Air conditioning	Operating hours	
	Winter setpoint	
	Summer setpoint	
	Night set-back	

8.3 HEALTH AND SAFETY ISSUES

Enter summary from Health and Safety reports including any areas of significant interest.

Health and Safety area [Add and delete as appropriate]	Key points	Location of full report
Asbestos register		
Legionella risk assessment		
Fire risk assessment		
Noise assessment		
Generic risk assessments		
Accessibility assessment		
Confined Spaces or hazardous areas		
Sites of Scientific interest		
Discharge consents		



For any generic risk assessments relevant to the building, provide a reference to their stored location such as an operational manual.

Include information on building specific risks including any building services that exist at height or in confined spaces where access or regular work can be affected. Provide photographs, highlighting where risks and hazards exist around the building:

Example of a health and safety issue
[Insert nicture here]

8.4 STANDARD OPERATING PROCEDURES (SOP)

Provide any SOPs that are required which should cover how the building systems are operated. Some examples of SOPs are, routine standby generator load tests, transferring UPS model or system to maintenance bypass, BMS software backups, cyclical plant changeover, testing of the building fire alarm.

If the building is large or complex and an Operations Manual exists covering the operation and maintenance procedures for the building, do not duplicate but only provide a location where they can be found.

Standard operating procedures (SOP)	Standard	operating	procedures	(SOP)
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9 TRAINING

Training materials can be recorded in this section. Compulsory induction training should be provided to new employees and contractors working in the building. Additional training can be related to new procedures or complex technologies used within the building.

Training materials

9.1 COMPULSORY TRAINING

This should include but not be limited to an introduction to the building services systems, air conditioning and heating, lighting and control, electrical supply and distribution, water waste management, recyclable procedures.

An introduction to emergency training procedures including but not limited to, fire alarm and evacuation, water leak management, lift failures and release procedures should be provided.

Site induction to building services	
Air conditioning and heating	
Lighting and control	
Electrical supply and distribution	
Water waste management	
Recyclable procedures	

Emergency procedures	
In case of a fire alarm	

9.2 ADDITIONAL TRAINING

This should include training details on any innovative/energy saving methods or equipment and training for general internal/external projects aimed at meeting areas of corporate social responsibility.

Additional training	
Energy saving	

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