

ESTATES & FACILITIES

Document Title

As Built Documentation

Document Number

ES/ 013-D

Contents

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Revision Index				
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02/02/2006	B	AKM	Issued for Use	
19/04/2023	C	MWR	For Review	
12/05/2023	D	TDP	General update	Mick Roch

1. Introduction

- 1.1 Wherever new works are completed (Capital/LTM/Client/Faculty projects etc.) the Operation and Maintenance Manual (O&M) and collation of all asset information will need to be coordinated by the project team to ensure that the final documentation meets the University's requirements. This will ensure the transition to from 'handover' to 'in-use' is delivered efficiently for the benefit of the building users and the wider University.
- 1.2 This document outlines a standard process for Consultants and Contractors to follow on how to deliver a compliant document. It includes suggestions for monitoring and actions which should be taken in regards to the recording the handover information, during the design and construction phase, to ensure that everything is in place.
- 1.3 Early (RIBA Stage 3-4) discussions should be held with the University's Project Manager and Liaison Engineers (M&E) and Asset / Planon team to discuss in greater detail the requirements of the project handover information.
- 1.4 The standard format of the manuals is described below with additional sections of the O&M added to provide the University with items that are regularly accessed, including asset information and standard replacement items (i.e. carpet/ceiling tiles). This aim is to improve the accessibility of the information and ease the integration into Planon (University's building management software system).
- 1.5 It is suggested that following meetings/reviews maybe beneficial, depending on the size/complexity of a project;
 - i. Reviews with the University asset / Planon / estates (E&F) teams before submission of any contractor tender to confirm the format required for O&M and asset information.
 - ii. Pre-start / early construction review.
 - iii. Interim construction reviews.
 - iv. Handover and collation of the final documents.
- 1.6 It is essential that a programme for the production of the documents is agreed at an early stage. As a minimum, a draft copy of the manuals should be available for comment at least 2 weeks prior to the expected handover date.
- 1.7 Practical Completion should not be awarded until suitable manuals have been provided.

2. Standard O&M format

2.1.1 The below summarises the key section titles to be included in the final O&M: The document must be navigable from the contents page.

1. Introduction and contents
2. Completion certificates
3. As-Built drawings and schedules
4. Fabric installation
5. Services installation
6. Health & Safety file
7. Asset data
8. Frequently required information

This format should be maintained and sub sections can be added into this structure as required.

2.1.1 *Section 1 – Introduction and contents*

- i. Overview of the project
- ii. Details of key parties involved in the project

2.1.2 *Section 2 – Completion certificates and documents*

- i. Building Control certificate
- ii. Planning permission
- iii. Practical completion certificate
- iv. Warranty documentation

2.1.3 *Section 3 – As-built drawings and schedules*

- i. Architectural
- ii. Structural & Civil

2.1.4 *Section 4 – Fabric*

- i. Fire compartmentalisation information such as fire doors and fire stopping materials including location
- ii. Schedule of maintenance requirements
- iii. Manufacturer's instructions
- iv. Material schedules
- v. Guarantees and warranties
- vi. Commissioning documents

2.1.5 *Section 5 – Services installation*

- i. Mechanical
 - a. Emergency isolation locations
 - b. Schedule of maintenance requirements
 - c. Heating systems and controls
 - d. Cooling systems and controls
 - e. Ventilation
 - f. Domestic water and waste water systems
 - g. Natural gas installations
 - h. Specialist installations e.g. compressed air, chilled water, process gases, sprinklers, dry risers etc.
- ii. Electrical
 - a. Emergency isolation locations
 - b. Schedule of maintenance requirements

- c. Electrical distribution
- d. Lighting systems including controls (including emergency systems)
- e. Fire alarm systems
- f. Security systems including access control
- g. Building Management Systems (BMS)
- h. Critical alarms systems.
- iii. Lifts
- iv. Other significant project features/systems.

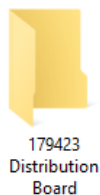
2.1.6 Section 6 – Health and Safety file

- i. Brief description of works carried out
- ii. Residual hazards that have not been eliminated during the design/construction process.
- iii. Key structural principals for the structure
- iv. Hazardous materials used during construction
- v. Information regarding the removal or dismantling of the structure, plant and equipment
- vi. Health and safety information about equipment provided for cleaning and maintenance of the structure
- vii. Information on building accessibility

2.1.7 Section 7 – Asset data

To be read in conjunction with E&F 'Estates & Facilities Standard Specification for Asset Information Capture' (EF-SPE002). This document does not supersede the requirements of EF-SPE002.

Each item requiring an asset tag as set out within EF-SPE002 will have a separate folder set up and located in this section of the manual. The folder should be titled with the asset number followed by the item name e.g.



Within each folder all relevant information for the asset should be included, this may be duplicated from elsewhere within the manual. The information may include the following,

- i. Drawings
- ii. Certificates
- iii. Schedules
- iv. Replacement parts including part numbers
- v. Key maintenance requirements
- vi. Safety information
- vii. Anything else useful to maintenance operatives

*Generic product literature should not be provided with the manual.

2.1.8 Section 8 – Frequently required information

- i. Finishes schedule including all primary materials including the following,
 - a. Paint colours
 - b. Floor finishes (carpets/vinyl etc)
 - c. Ceiling finishes (ceiling tiles/acoustic panels etc)
- ii. Key materials likely to require replacement,
 - a. Details of glazing systems including glass type, ironmongery
 - b. Furniture details

3. General notes

3.1 Drawings should be provided in DWG editable formats.

RECORD DRAWINGS

On the completion of any building or infrastructure project, The University of Southampton require a full set of record drawings.

These drawings must be provided to the Estates and Facilities CAD Team in **AutoCAD DWG** (CAD) format.

Drawings produced using BIM software (such as Autodesk Revit) must be exported into AutoCAD DWG format files before issue. **The University will also require any original BIM files** (for example .RVT) for its records.

ADDITIONAL DRAWING REQUIREMENTS

On any project where new spaces are created or an existing space is amended, the new or revised areas (GIA & NIA, m²), the agreed space numbers and room/space usage are to be shown.

It is essential that the **GIA and NIA areas are identified by polylines**. (If the drawings are produced in Autodesk Revit, these are called Room Area Boundaries. The Export Setup must be modified to select Export Rooms and Areas as Polylines).

Any Void areas within a building should not have a space polyline (NIA) and should not be included in the GIA area polyline.

SPACE (ROOM) & BUILDING NUMBERING

All Space (Room) & Building numbering is managed by the Estates and Facilities Space Management team in accordance with the University approved Standard Room & Space numbering procedure document (Reference ES-030, Version C).

All requests for new or revised Space and Building names and numbers must be made to the Estate Planning Administrator:

Tracey Waterhouse t.v.waterhouse@soton.ac.uk

FURTHER ASSISTANCE

For further assistance on university drawing requirements, contact the Estates & Facilities CAD Team:

Rob Jobber raj@soton.ac.uk

Chris Liddon c.m.liddon@soton.ac.uk

3.2 Full manufacturer literature should not be provided with the manual.

3.3 Manuals should be provided electronically only.

3.4 Manuals should be provided in a standard windows file explorer format and not rely on 3rd party platforms to present the information. 3rd party platforms can be used but they must be supplemented as noted.