

Estates Operations

Record Document Process Guidelines

Guidance for the Project Team

(To be read in conjunction with the latest revisions of the Building Fabric and Mechanical & Electrical O&M Technical Guidelines)

REVISION 2.1

Issue Date: September 2021

Revision History

Revision Number	Revision Date	Summary of Changes
Rev 1	February 2016	
Rev 1.1	March 2017	<ul style="list-style-type: none"> • Updated 4.07 Draft Manuals Review Process • Updated 3.0 Responsibilities • Updated 5.0 Asset Register Schedule • Updated 6.0 Fire Strategy information • Updated 7.0 Additional BFM Literature • Updated appendices • Asset Register process updated
Rev 1.2	Nov 2017	<ul style="list-style-type: none"> • Revised Asset Register process
Rev 2	Jan 2020	<ul style="list-style-type: none"> • Updated all references of CAD/CAD strategy to BIM or EIR where applicable. • added minor works records requirement • updated Asset Register process • updated job titles and Division titles where applicable • general minor updates of text across the document • updated Appendix i: Record Document Flow chart • removed Appendix iv: Asset Register flow chart
Rev 2.1	September 2021	<ul style="list-style-type: none"> • Updated 3.0 Updated Project Manager, Technical Author, Principal Designer and Reviewer responsibilities • Updated 4.01 Document reference number • Updated 4.03 Record document strategy meeting • Updated 4.07 draft manuals review process. • Updated 9.0 Delivery to relate to digital delivery • inclusion of Technical Author's scope of service (appendix v)

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1. Introduction

A record document is evidence of a transaction carried out as part of business activities. In the context of a construction project, record documents are required as evidence of works carried out and delivered as an outcome of the completed project.

Construction project record documents include but are not limited to:

- As built / As Installed drawings and models
- Building Fabric Manual
- Health and Safety File
- Mechanical Services Manual
- Electrical Services Manual
- BEMS Manual
- Fire Safety Information
- Asset Register
- *Project Filing*¹

This document is to provide guidance to anyone working on a construction project on the Record Documents (O&Ms) procedure. For a specific breakdown of the required format and content of the O&Ms, refer to the separate documents:

- RM07 Production Guidelines for the Building Fabric Manual (incorporating Health & Safety File)
- RM08 Production Guidelines for the Operating and Maintenance Manuals

Refer to [Appendix \(i\)](#) of this document for a flow chart of the Record Document process.

2. Record Documents as a deliverable.

Issue of Record Documents, **produced to Imperial College standards**, is a required deliverable of a construction project. Completion should not be granted until the documents have been approved by the College and issued formally by the Principal Contractor.

In the event of post-completion works, an agreement will need to be made between the Project Manager, Principal Contractor and Estates Records & Archives Officer on delivery of outstanding works' documentation, so as not to adversely affect completion of the O&Ms – this could be an update to the manual issued at completion or issue of an addendum document – and must be confirmed at the Handover meeting.

2.1 Minor Works

For very minor refurbishment works with a limited budget, for example simple redecoration of a single room, flooring replacement in a small area; a record of what was installed and how it should be maintained should still be delivered. For such works, a full building fabric manual may be impractical and instead a [Minor Works Installation Record](#) should be completed by the Contractor or Project Manager. If the scope of works is too complex to be itemised in this single page document, then a manual should be produced, the extent of which should be agreed with the Estates Records & Archives Officer when preparing the contractor tenders.

¹ Delivery of Project Filing is not covered in this document. Refer instead to the Estates Records Management Policy

3. Responsibilities

The **Contractor**² is responsible for:

- Ensuring that all record documents produced are an accurate record of the completed works.
- Providing all relevant literature and drawings, as produced by themselves, their sub-contractors, consultants, and relevant College departments to the Technical Author for record document production.
- Production of a Record Documents Tracking tool and program; and reporting updates at project team meetings.
- Completion of Asset Register, including documenting removed assets, obtaining asset codes from Estates Facilities, and labelling of plant.
- Issuing completed Asset Register to the Technical Author for inclusion with the O&Ms.
- Coordinating delivery of all completed O&Ms and as-built drawings to the Estates Records & Archives Officer for onward distribution.

The **Technical Author** is appointed by the Contractor to:

- Collate literature, text and drawings issued by the Contractor to produce record documents to Imperial College guidelines.
- Undertake collation, production, review submission and escalation requirements as outlined in the Technical Author's Scope of Service (refer to [Appendix v](#))
- Ensure O&Ms have been reviewed by all parties before release of final documents.
- Arrange for delivery of all record documents to the Estates Records & Archives Officer following sign off by Project Manager.

The **Project Manager**:

- Organises the Record Document Strategy Meeting.
- Ensures that the agreed process is adhered to for the duration of the project.
- Carries out early-stage review of initial draft document
- Circulates final draft to relevant College staff for approval
- Undertakes final sign-off review, including confirming that all necessary parties have approved the final drafts, to ensure the documents are an accurate record of works carried out
- Authorises delivery of record documents to the Estates Records & Archives Officer
- Ensuring all record documents have been issued to the College's requirements before giving Completion.

The **Principal Designer** is responsible for:

- Liaising with the Contractor and Technical Author to ensure the Building Fabric manual includes the Health & Safety file, produced as per CDM15 regulations.
- Ensuring the inclusion of Fire Strategy statement and drawing(s).
- Completion of the Health & Safety pro-forma for inclusion in the Operating & Maintenance Manuals.

The **Estates Records & Archives Officer** is responsible for:

- Providing guidance on the production of O&Ms.
- Chairing the Record Document Strategy Meeting.

² The Contractor would in most cases be the Main Contractor but according to the nature of the work may be instead an M&E Contractor.

- Assigning Document Reference numbers.
- Carrying out a final Composition Review of the O&Ms.
- Taking delivery of all completed record documentation for onward distribution.
- Distribution of Issue Memo to confirm receipt of record documents.

The **BIM Manager** is responsible for:

- Checking drawings and data to ensure compliance with the project specific / College EIR.³
- Checking and allocating room numbering.
- Provide guidance on meeting the EIR requirements.

The **nominated reviewers**⁴ are responsible for:

- Reviewing the draft documents.
- Reporting back to Technical Author with comments within the agreed timescale.⁵

4. Process

To ensure a timely and accurate handover of record documents, the production of record documents should follow this process:

4.01 Document Reference number

The expected O&Ms are registered by the Estates Records & Archives Officer upon receipt of the F10, generating a Document Reference number. If notification to the HSE is not required, the CDM Notification document will be the trigger for this process in place of the F10. The Project Manager should ensure a copy of either document is forwarded to the Estates Records & Archives Officer.

The Document Reference number is building and phase specific and is to be displayed on all volumes of the relevant O&Ms with the project number.

If a project is completed in several phases and/or in multiple buildings, separate Document Reference numbers will be assigned for each area of the works, requiring separate sets of record documents. This will be agreed in the Record Document Strategy Meeting.

4.02 Technical Author Appointment

For most projects, the Contractor is to appoint a Technical Author from Estates' recommended list of companies, obtained from the Category Manager (Construction) or from the Estates Records & Archives Officer. The Project Manager and Estates Records & Archives Officer must be notified of the selection.

Technical Authors will provide a standard level of service which ensures a focused and proactive approach to the production of the manuals. Refer to Appendix v: Technical Author's Scope of Service

³ Employers Information Requirement

⁴ Nominated reviewers of the O&Ms are agreed at the Record Document Strategy Meeting and named on the sign-off form. Depending on the nature of the project, this would normally be the Designers and Supervisors.

⁵ Review procedure as agreed in the Record Document Strategy Meeting

For minor projects, if it is agreed that the scope of works does not warrant the appointment of a Technical Author, the Contractor must instead produce the record documents in accordance with the Building Fabric and O&M production guidelines (*RM07* and *RM08*).

This should be agreed when the tender documentation is being prepared to ensure that the Contractor quotes for the appropriate scope of works; any change to this agreement at a later stage should be addressed to the Project Manager and Estates Records & Archives Officer.

The Technical Author should report on a regular basis directly to the Project Manager and Principal Designer, advising them of any potential problems or shortcomings associated with meeting the programme's key dates.

4.03 Record Document Strategy Meeting

The Project Manager is to set up a Record Document Strategy Meeting after the Contractor has been appointed. The following attendees should be invited:

- Project Manager
- Contractor (Site Supervisor and nominated Information Manager/Document Controller)
- Imperial College Estates Records & Archives Officer
- Imperial College BIM Manager
- Imperial College Maintenance Manager for the project area
- Imperial College Building Manager for the project area
- Principal Designer
- Lead Designers from relevant disciplines (must receive minutes if unable to attend)
- Imperial College Fire Officer/Security Officer/Controls Engineer, where applicable to the nature of the project.
- other College representatives or project team member as appropriate to the works

This meeting should take place before the appointment of the Technical Author to enable appropriate pricing of record document production. A follow up meeting may be scheduled with the Technical Author in attendance if required.

4.04 Record Document Strategy Meeting Agenda

The Estates Records & Archives Officer will chair the meeting to address the following items. Refer to [Appendix \(ii\)](#) for Agenda template.

- Introductions
- Scope of works and documents required, ie phased projects, multiple locations, scope of works, specialist manuals.
- Quantity and format of O&Ms
- Summary of contents and required literature.
- Room numbering, required drawings and EIR compliance
- Asset Register
- Fire Safety strategy
- Structural information
- Other items for inclusion.
- Sign off/Review: agree nominated technical reviewers, deadlines, review method.
- Any other queries

4.05 Strategy Meeting Follow-up

The Estates Records & Archives Officer will distribute the meeting minutes to the attendance list, accompanied by a cover email confirming the project number, document reference number, and agreed project title.

The items agreed at the meeting form the scope of works for the Technical Author. For complex projects, a follow up meeting may be required with the Technical Author present.

4.06 Content, Reporting and Tracking

The Principal Contractor or Technical Author must produce a tracking tool to report on the progress of the record documents. This will also include checking for compliance to the EIR (refer to [section 8.0](#) for further details).

The tracker will include all items agreed in the strategy meeting, including a schedule of Manufacturers literature and sub-contractors' drawings, progress of drawings' production and draft O&M's sign-off procedure. An example of a typical tracker can be viewed in [Appendix \(iii\)](#).

Refer to the separate technical guideline documents *RM07 Production Guidelines for Building Fabric Manuals* and *RM08 Production Guidelines for Operating and Maintenance Manuals* for a full outline of the required contents.

Reporting and tracking of record documents' progress should be included on the agenda of project handover meetings.

4.07 Draft Manuals Review Process

Draft copies of the manuals are to be issued in accordance with the Project Handover Plan and allow sufficient time for approval prior to final issue. Unless otherwise specified, the drafts should be uploaded to the College project filing on Box.⁶

The early draft will contain only certain project information compiled at this stage, which should include:

- Scope and location of works
- Project Directory
- Schedules of literature and certificates
- Schedules of drawings (drawing registers)

The literature, drawings or certificates themselves may not yet be available or to be issued for comment under separate cover but the schedule should list what is to be included.

The purpose of the draft at this stage is to ensure that the manual is being set out correctly, that key project information is correct and demonstrates that information for the other sections is in the process of compilation. This early draft should be reviewed by the Project Manager, Designers, Contractor and Supervisors to ensure the documentation will accurately reflect the works carried out.

⁶ do not use file sharing services not authorised by Imperial College ICT such as WeTransfer or Dropbox unless specific agreements have been made, to ensure security of College data.

The first complete draft will be issued by the Technical Author to the Designers and Supervisors for review, along with any other reviewers agreed at the Record Document Strategy Meeting, at an appropriate date to enable reviews to be conducted prior to completion. This draft should include finalised literature and drawings, with notification of any commissioning certificates for insertion at completion. This review must also ensure any changes made to the scope of works since the first draft have been updated and incorporated.

Any comments on missing, incomplete, or inaccurate information should be addressed to the Technical Author to report back to the Contractor. The Technical Author is to compile a tracker of comments, which will be updated when comments are addressed. A copy of the tracker, when completed, should be issued with the completed manuals as a record that the content has been reviewed to the satisfaction of all parties concerned.

The Project Manager should provide the Building Manager, Maintenance Manager, and any other internal interested parties with an opportunity to review the manuals and submit comments before the finalised version is issued. This review is referred to as the “Stakeholder Review”

Following this, the Project Manager conducts the final Sign-off Review, ensuring that all necessary parties have approved the final draft, and a fully hyperlinked draft is sent to the Estates Records & Archives Officer to carry out the Composition Review. Refer to Section 4.09 for a summary of elements comprising the Composition Review.

Refer also to [Section 8.0](#) of this document for drawings’ review procedure and [Section 3.0](#) for an outline of individual responsibilities.

4.08 Instructions for Commenting

The following guidelines should be observed when commenting on the information provided at draft stage:

- It is essential that the text in the draft copy is correct. Additional comments made at final issue due to lack of appraisal of the draft may result in additional costs being charged by the affected party and/or delayed final issue of the documents.
- Comments should be issued in the form of a snagging list, detailing the Section, page, or item number as appropriate, clearly indicating what is required.
- Comments at technical review stage should be concerned with technical accuracy of the content. If there are any queries regarding the format or layout of the drafts, then the matter must be reported to the Project Manager and Estates Records & Archives Officer at the earliest opportunity.
- Suggestions regarding changes to the standard specification for record documents must be approved in a meeting with the Estates Records & Archives Officer, Estates Health & Safety Advisor (Construction), Maintenance Manager and the Project Manager before they can be incorporated. **If format, layout, or standard content changes have not been agreed, they will be rejected at the final Composition Review.**

To avoid delay at completion, comments and completed forms should be returned promptly. The Technical Author is to escalate any delay in the production process to the Project Manager, which will then be addressed at the project team meeting.

4.09 Composition Review

The composition review is carried out on the final draft hyperlinked pdf version of the manual by the Estates Records & Archives Officer after the technical content has been signed-off.

This review only checks the following:

- Project Number
- Project Name
- Document Reference Number
- Hyperlinks
- Adherence to Guidelines
- Structure and clarity of document.
- Any specific items or exceptions agreed at the Strategy Meeting have been addressed.
- Whether the drawings have been checked/approved for EIR compliance.

Although this review does not cover the technical content, which should have been verified and approved by this stage, any items addressed in the Strategy Meeting which have not been incorporated will be referred back to the Project Manager for clarification.

This completes the review process and must take place before the manuals are produced in their final version in digital and hard copy.

The Estates Records & Archives Officer will also review the format and layout of the manual at an earlier stage where required but is not involved in the technical content reviews.

5. Asset Register

A register of newly installed maintainable Mechanical and Electrical Assets within the project area is to be included within the record document issue.

Refer to this page for further details on the Asset Tagging process:
<http://www.imperial.ac.uk/estates-facilities/buildings/procedures/assets/>

This process applies to any project where mechanical or electrical assets are removed, updated or installed. For minor works projects, where the M&E information is incorporated with the Building Fabric manual, the asset register should form a part of this file and the above process is to be followed.

6. Fire Safety information

All fire safety information is required to comply with Building Regulation 38 and as outlined in Appendix G of Approved Document B. The Contractor is responsible for providing this information as part of the project completion record documents.

The overall format and scope of fire safety record information should be confirmed at the Record Document strategy meeting. For complete new build projects, a full fire safety manual conforming to the above building regulation should be produced and issued to the Head of Fire Safety (via the Estates Records & Archives Officer as part of the record document process)

For refurbishment projects, fire alarm information is included in the Electrical O&Ms (*note that a new fire alarm panel install requires its own manual*) and fire safety information is in the building fabric manual. The exact scope of this information would be appropriate to the nature of works, in accordance with legislative requirements and could include, for example:

- Fire strategy drawing(s) and statement⁷
- Compartmentalisation drawings

Section 4 of the Building Fabric manual should detail where the appropriate information is located. Upon receipt of the Issue Memo, the Head of Fire Safety can refer to this section to locate the required information to update their building records.

7. Additional Building Fabric Manual Literature

The following items may also be required for the building fabric manual, in accordance with the nature of the project and should be agreed at the Record Document Strategy Meeting:

- Planning Consents
- Asbestos Reports
- surveys and reports
- Waste Management final report
- F10 Notification to the HSE
- Consent to Commence Work
- Imperial College specialist works (if installed/carried out during the contract period)
- Building Control Certificate

Refer to *Production Guidelines for the Building Fabric Manual (incorporating Health & Safety File) RM07* for full details of expected literature for the manual.

8. Drawings

All drawings, models and digital information are to be issued as final As-built / As-installed status and produced to the College's Employers Information Requirements (EIR). Refer to the project specific EIR for information and deliverables.

The information approval process is as follows:

- Room numbering is to be allocated at Stage 3 (Design) by the College Building Information Manager and is to be correctly recorded on all drawings and digital information from this stage.
- The Design Team send sample drawings to cadcompliance@imperial.ac.uk, at Stage 3, for the BIM Manager to check on project EIR compliance. The email MUST include the project number in the heading.
- Towards the end of Stage 5 (Construction), the Contractor sends sample final **As-built / As-installed** drawings to cadcompliance@imperial.ac.uk (the email MUST include the project number in the heading), for College approval before record documents can be issued.
- Drawings and digital information to be issued in native (.dwg or.rvt) format and PDF.

⁷ where no current Fire Strategy drawing exists, the Contractor should produce new drawings outlining the fire strategy of the works area. This should be delivered as an as-built drawing in line with the Project EIR

- A set of hard copy drawings are to be printed to the size specified on the scale, folded down to A4 for insertion into the appropriate manual.⁸

All models and drawings must adhere to the project specific EIR where they inform on the fabric, infrastructure, and services of the building (for example, architectural, structural, mechanical, electrical, public health) and may be needed for alterations or renovations in the future.

Some manufacturers' component drawings, supplied in *Section 9 Manufacturer's literature* of the Building Fabric Manual, are issued for information purposes only and may not require full compliance. The Estates Records & Archives Officer must be included in this decision, to confirm what information is needed for the Estates Archive.

9. Delivery

The Project Manager is to ensure that all record documents are delivered to the Estates Records & Archives Officer for onward delivery to the agreed recipients.

Unless otherwise specified, the final digital format documents are uploaded to the College project filing on Box, notifying the Estates Records & Archives Officer.

The digital upload of final documentation must be accompanied by a sign-off form/letter or the completed Comments Tracker stating that the files have been completed according to Imperial College requirements and are an accurate record of works completed.

One set of hard copy manuals and drawings are delivered to the Estates Records & Archives Officer.

The Estates Records & Archives Officer will check the received records comply with that agreed at the Composition Review and send an Issue Memo to confirm delivery. The distribution list consists of the Building Manager, Maintenance Manager, Project Manager, Contractor and Construction Safety Manager and other interested parties within Imperial College. Following receipt of Issue Memos for all agreed O&Ms, the Project Manager can issue the Completion certificate.

The College will not take delivery of partially completed/not signed off record documents.⁹

⁸ Refer to documents RM07 Production Guidelines for the Building Fabric manual and RM08 Production Guidelines for Operating & Maintenance Manuals for more information regarding delivery formats.

⁹ A procedure for post-completion works needs to be agreed at a meeting in advance of completion, so as not to delay the issue of record documents.

10. Contacts

For further information please contact the following:

Record Documents: Estates Records & Archives Officer
Alyson Brewer a.brewer@imperial.ac.uk +44(0)20 7594 6483

Drawings, models and digital information: Building Information Manager.
Julie Neville j.neville@imperial.ac.uk +44(0)20 7594 8896
Sample drawings for EIR compliance check to: cadcompliance@imperial.ac.uk

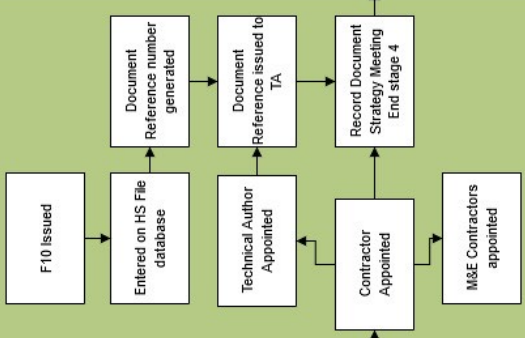
Health & Safety Information: Health & Safety Advisor (Construction)
Oluseyi Oduntan o.oduntan@imperial.ac.uk +44 20 7594 8936

Asset Registers: Estates Operations' Customer Service Centre.
eo.csc@imperial.ac.uk +44 (0)20 7594 8000

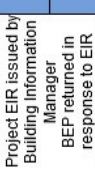
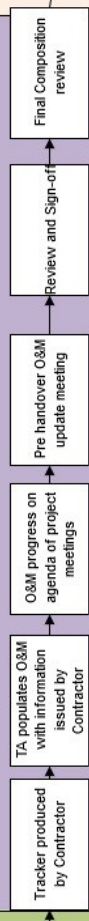
Appendix i: Record Document Process flow chart.

refer to the following page

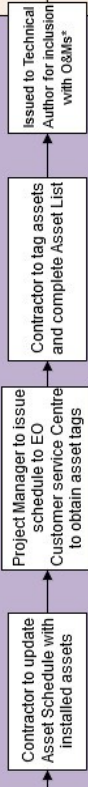
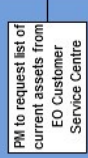
Manuals



Drawings



Asset Register



Stage 2 Concept – Stage 3 Developed Design

Stage 4 Technical Design

Stage 5 Construction

Stage 6 Handover

Record Documents Process Flow Chart

*where agreed by Project Manager, the asset register may be issued separately to avoid delay in issue of Contractor's record documentation

Appendix ii: sample Record Document Strategy Meeting agenda

Refer to following pages.

Record Document Strategy Checklist

Project Number: _____ Project Title: _____
 Project Manager: _____ Location: _____
 Project Stage: _____ Meeting Date: _____

Distribute for review / comment / information / action to:

Project Manager _____
 Principal Designer _____
 Principal Contractor _____
 Building Manager _____
 Maintenance Manager _____
 Records & Archives Officer, Estates Operations _____
 BIM Manager, Estates Operations _____
 M&E Contractor(s) _____
 Technical Author _____
 Lead designers from relevant disciplines _____
additional College staff or project team, _____
as applicable to the project: _____

Checklist

Please read through the following and add your responses.
 Please return this to the Records & Archives Officer who will add any further comments, requirements and recommendations to the Comment section.

1	O&M Guidelines. Please confirm you have the latest version and that the manuals will be produced in accordance with the guidelines. Guidelines available to download from this page: http://www.imperial.ac.uk/estates-projects/project-procedures/processes/project-management/record-document-strategy/ or from https://www.imperial.ac.uk/estates-projects/space-management/information-management/
Contractor Response	
ICL Comment	
2	Has a Technical Author been appointed to collate and produce the manuals? The current recommended Technical Authors, familiar with our record document requirements are: <ul style="list-style-type: none"> Officescope: 43 Leicester Road, Wanstead, London, E11 2DW. Contact: Malcolm Dowers, 07976 247730 or 020 8536 4060 mdowers@office-scope.co.uk DS Riddell Developments Ltd t/a Riddell Project Management: Buchan House, Carnegie Campus, Dunfermline, Fife, KY11 8PL; contact: Mark Grant 01383 622500 mark.grant@riddellpm.co.uk Watson & Sole Associates Ltd: 97 Westmead Road, Sutton, Surrey, SM1 4HX. contact: Paul Vermont 07956 897738 paul.vermont@watsonsole.co.uk

Contractor Response	
ICL Comments	
3	Scope of works. Please provide a brief outline of the works and areas affected
Contractor Response	
ICL Comments	
4	Project Start on site date
Contractor Response	
ICL Comments	
5	<p>Is it a phased project or with significant enabling works? If yes, is the proposal for:</p> <ul style="list-style-type: none"> • a separate set of record documentation issued for each phase (recommended if different contractors are appointed or if each area of works is distinct) • or a single set of manuals updated as each phase completes (recommended if there are interconnected or superseded services installations) <p><i>If the latter, please discuss with Alyson Brewer as to how this will be produced and delivered, to meet with College accessibility requirements.</i></p>
Contractor Reponse	
ICL Comments	
6	<p>Do any element of the works take place in other buildings or locations? If yes, separate manuals may be required, please discuss with Alyson Brewer</p>
Contractor Response	
ICL Comments	
7	<p>Scope of M&E Works – major or minor? <i>If very minor, this information can be included within Section 10 of the building fabric manual (refer to guideline document RM07) or if significant, separate manuals should be produced (guideline document RM08)</i></p>
Contractor Response	
ICL Comments	
8	<p>Quantity and format of manuals is outlined in Section 9 of RM07 Building Fabric manual Guidelines and Section 11 of RM08 O&M manual guidelines. Are there any additional copies required (for end users or other parties with an interest in the location)?</p>
Contractor Response:	
ICL Comments	Currently accepting digital formats only, with discussion to be made about delivery of hard copies at time of completion, dependant on whether access can be made to the archive, due to covid restrictions.
9	<p>Drawings and digital information must be produced in accordance with the Project EIR (Employers Information Requirements)</p> <ol style="list-style-type: none"> 1. has an EIR been produced and issued for this project? 2. Have sample design stage drawings been sent to Julie Neville (cadcompliance@imperial.ac.uk) to confirm compliance to the EIR? <p><i>Note that final drawings must be as-built status and a final compliance check must be carried out, via the Technical Author.</i></p>

Contractor Response:	1.
ICL Comments	
10	Are there any changes to room layouts and have new room numbers been allocated by Julie Neville, Estates Operations Building Information Manager?
Contractor Response:	
ICL Comments	
11	Are there any structural alterations taking place or have surveys been conducted on the structure? What reports and drawings will be included in the manual?
Contractor Response:	
ICL Comments	
12	Any other reports or surveys conducted in the works area or connecting services?
Contractor Response:	
ICL Comments	
13	Schedule of Manufacturers Literature. Please refer to section 4.06 of guideline document RM09 Record Document Guidelines and confirm that a schedule will be produced at an early stage to collate all relevant literature (refer also to guideline documents RM07 and RM08 for details on the literature required) Please include any queries you may have on what literature is required.
Contractor Response	
ICL Comments	
14	Are there any items procured by the College directly which are to be installed during the project programme?
Contractor Response	
ICL Comments	
15	Are there any specialist items procured within the contractor's scope? Which manual are they to go in (Building Fabric, Mechanical, Electrical) or issued as a standalone manual (as an exception only, refer to guideline document)?
Contractor Response	
ICL Comments	
16	<ol style="list-style-type: none"> 1. Will the fire safety strategy change as an outcome of the works? 2. Have fire strategy drawings been produced or any other relevant documentation? 3. Is a new fire alarm panel or system being installed or an update to the existing system?
Contractor Response:	1.

ICL Comments:	
17	<p>Asset Register Are existing maintainable assets being removed or replaced? Are new maintainable assets being installed?</p> <p>Refer to RM09 Record Document Process guidelines and http://www.imperial.ac.uk/estates-facilities/buildings/procedures/assets/</p>
Contractor Response:	
ICL Comments	<p>PM to get current register for works area – contact Estates Operations Customer Service Centre to request the current asset schedule. eocsc@imperial.ac.uk Check for removed assets and cross them off the list (do not delete from list) and add any new Return list to Julie Bryant at email above for asset tags. Contractor to apply tags before PC and include final asset register with the O&M Refer to link above for full details of the asset register process</p>
16	<p>Other items:</p> <ol style="list-style-type: none"> 1. Final SWMP report 2. Planning 3. Warranties – specialist, extended or with conditions attached? 4. Building control 5. Notifiable to HSE (F10 issued) 6. Building logbook 7. Separate H&S file (refer to RM07, usually incorporated within the Building Fabric Manual)
Response	1.
17	<p>Sign off and review:</p> <ol style="list-style-type: none"> 1. Completion date 2. O&M delivery date 3. Review method 4. Reviewers (see also Q19) <p><i>Refer to guideline document RM09 for O&M review process and responsibilities</i></p>
Response	1.
18	Principal designer for the construction period
Contractor response	
ICL Comments	If the College is retaining the role of Principal Designer, the Project manager needs to schedule a meeting with the Building Manager, Maintenance Manager and Estates H&S Manager (construction) to determine significant risks associated with the work which may require management controls. The H&S Manager will produce an H&S Statement and forward for inclusion in the manual.
19	<ol style="list-style-type: none"> 1. External supervisors with record document review responsibility? 2. Designers novated to the Contractor? 3. Do the Designers have record document review responsibility?
response	
20	Any other items?
Contractor Response	

ICL Comments	
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Appendix iii: typical example of Tracker

Refer to following page

O&M Tracker

Project Name:		Project No:		Project Completion Date		Report Date:								
xxx		ICZZ1701		Fri 29/05/15		Wed 12/08/15								
Work section	Contractor	Draft issued to Contractor (Enter dates)	Contractor Review and issue to consults / ICL / TA	Consults / ICL Review and Return to Contractor	Contractor returns Technical Author for amendments	Principal Designer Review and Return to Contractor	Technical Author amends and issues to PM	PM Final review and comment	FLOAT (working days)	Contractor assembles final DRAFT	Contractor issues final draft pdf to Imperial College Archiver Officer (Projects) - (projects)	Imperial College Archiver Officer (Projects) - composition review.	Final Changes by Contractor	Contractor issues FINAL to ICL Archive
Activity days		3	3	5	2	5	2	2		3	2	2	2	2
Mechanical Manual	contractor name		Current Production Stage:- Awaiting info for draft Draft in Production Draft Issued, Awaiting Comments Comments Received, Awaiting Answers Finals in Production Manuals Issued Action/Info Needed from (this will change as job progresses):- Yes Services Contractor No Main Contractor No CDMC No Client											29/05/2015
Electrical Manual	contractor name		Current Production Stage:- Awaiting info for draft Draft in Production Draft Issued, Awaiting Comments Comments Received, Awaiting Answers Finals in Production Manuals Issued Action/Info Needed from (this will change as job progresses):- Yes Services Contractor No Main Contractor No CDMC No Client											Fri 29/05/15
BMS	contractor name	Mon 13/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Thu 21/05/15	Mon 25/05/15	Wed 27/05/15	Fri 29/05/15
Building Fabric Manual (examples provided for the purpose of this sample document)														
Facade and Glazing, fire exit door	contractor name	Fri 24/04/15	Wed 29/04/15	Wed 06/05/15	Fri 08/05/15	Fri 15/05/15	Tue 19/05/15	Thu 21/05/15	4.00	Mon 18/05/15	Thu 21/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Glazed doors and screens, fire rated, partitions	contractor name	Fri 10/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Fri 08/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Folding doors	contractor name	Fri 10/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Folding door steelwork	contractor name	Wed 15/04/15	Mon 20/04/15	Mon 27/04/15	Wed 29/04/15	Wed 06/05/15	Fri 08/05/15	Tue 12/05/15	5.00	Mon 18/05/15	Tue 12/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Decorations	contractor name	Fri 10/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Thu 14/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Floor finishes	contractor name	Fri 17/04/15	Wed 22/04/15	Wed 29/04/15	Fri 01/05/15	Fri 08/05/15	Tue 12/05/15	Thu 14/05/15	3.00	Mon 18/05/15	Thu 14/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Ceilings	contractor name	Wed 15/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Fri 08/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Ironmongery	contractor name	Wed 15/04/15	Mon 20/04/15	Mon 27/04/15	Wed 29/04/15	Wed 06/05/15	Fri 08/05/15	Tue 12/05/15	5.00	Mon 18/05/15	Tue 12/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Wall panelling from WC Fields	contractor name	Mon 06/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Thu 21/05/15	Mon 25/05/15	Wed 27/05/15	Fri 29/05/15
Stud Walls, Plasterboard and miscellaneous builders items	contractor name	Fri 17/04/15	Wed 22/04/15	Wed 29/04/15	Fri 01/05/15	Fri 08/05/15	Tue 12/05/15	Thu 14/05/15	3.00	Mon 18/05/15	Thu 14/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Tea point and sinks (including cleaners)	contractor name	Fri 17/04/15	Wed 22/04/15	Wed 29/04/15	Fri 01/05/15	Fri 08/05/15	Tue 12/05/15	Thu 14/05/15	3.00	Mon 18/05/15	Thu 14/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Granite Slabs	contractor name	Fri 17/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Fri 08/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Glass wipe board	contractor name	Wed 15/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Wed 06/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
Fire stopping and intumescent coatings	contractor name	Wed 15/04/15	Thu 16/04/15	Thu 23/04/15	Mon 27/04/15	Mon 04/05/15	Wed 06/05/15	Fri 08/05/15	7.00	Mon 18/05/15	Fri 08/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15
GDO AHU external Steelwork	contractor name	Fri 17/04/15	Wed 22/04/15	Wed 29/04/15	Fri 01/05/15	Fri 08/05/15	Tue 12/05/15	Thu 14/05/15	3.00	Mon 18/05/15	Thu 14/05/15	Mon 18/05/15	Mon 18/05/15	Mon 18/05/15

Appendix iv: sample Issue Memo

refer to following page

MEMO

To:- [REDACTED] – Building Manager

From:- Alyson Brewer

CC:-

[REDACTED] – Maintenance Manager
[REDACTED] – Project Manager
[REDACTED] – Senior Supplier/ Project Manager
[REDACTED] – Principal Contractor
+ issue memo distribution list

Date: 19/03/2021

Project No:- *insert project number*
insert document reference number and project title

Receipt of digital format Building Fabric manual and O&Ms

Dear all,

The following documents, associated with the above project, have been issued in digital format on [date]. PDF formats can be accessed via the following links by all Estates staff. Please advise if access is needed for anyone else.

1. Building Fabric Manual and architectural drawings:
<https://imperialcollegelondon.box.com/s/cgukfzoxubrdxbcfp7q9tzcot06j3xx>
2. Mechanical Services Manual and mechanical drawings:
<https://imperialcollegelondon.box.com/s/tm5xrl7elzv4etqk3jarehg9yubkasmxxb>
3. Electrical Services manual and electrical drawings:
<https://imperialcollegelondon.box.com/s/t243zwd2qsn1qz879o7otfu1fs9e24xxn>

The as-built GAs are in the project file, for the CAD team to pick up:

<https://imperialcollegelondon.box.com/s/36x8y4xpugq8r9ilec0pkun5no48d8hxxa>

A full set, including dwg drawings has been retained in the Estates digital archive. Please contact me if you need a copy of the dwgs.

Hard copies of the manual and drawings will be delivered to the Estates Archive

Best Regards,
Alyson Brewer
Estates Records & Archives Officer

Appendix v: Technical Author's Scope of Service

refer to following page

Technical Author Specific Scope of Service

September 2021

TECHNICAL AUTHOR SCOPE OF SERVICE

Imperial College London's (ICL) scope of technical author services is intended to provide a standard approach through each project process to completion. Further details of the College's Project Process and Procedures are included in the Projects part of the Imperial website in Project Procedures / Process Map.

This document must be read in conjunction with ICL's Consultant's Core Duties document and the Design Responsibilities Matrix.

The technical author duties are arranged over various stages, as outlined below.

These stages generally follow the RIBA stages. There is some repetition of particular services between different stages.

0	Strategic Definition: Project initiated using Client Brief and Business Case. Obtain information on the site, surveys and appointing consultants and carry out Feasibility Studies. Project Approval: Approval of capital funding for the project at Imperial College Project Review meeting (PRM)
1	Preparation and Brief: Development of Design brief with users and technical advisors.
2	Concept Design: preparing and approving concept design.
3	Developed Design: scheme and design development, plus obtaining statutory approvals.
4	Technical Design: Detail technical design and specifications plus statutory approvals. Preparation of design details and further information for construction as required by construction contract.
5	Construction: mobilization, reviewing and inspecting the works
6	Handover and Completion: Post Construction: final inspections and accounts

STAGE 0 – 3

PROJECT DUTIES:

1.	No duties; technical author will be procured at the end of Stage 4.
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STAGE 4 TECHNICAL DESIGN

PROJECT DUTIES:

1.	No Duties, the Technical Author will be procured at the end of Stage 4. A record document strategy meeting will take place with the Contractor, Estates Records & Archives Officer, Estates BIM Manager and Project Manager, the minutes of which will be forwarded to the Technical Author to assist with and provide clarification during their tender process.
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STAGE 5 CONSTRUCTION

PROJECT DUTIES:

1.	Contact the Estates Records & Archives Officer to confirm the document reference number and project number/name
2.	Attend record document requirements meetings if requested by the Contractor to discuss what was agreed at the initial strategy meeting.
3.	Request and collate the required information from the Contractor; record status and actions in a tracker document and report as part of a RAG report.
4.	Compile/author the information to produce draft sections that adhere to the College guidelines (RM09 Record Document Guidelines, RM08 Operation and Maintenance Manual Guidelines and RM07 Building Fabric Manual Guidelines).
5.	Follow any project-specific requirements documented in the O&M/Record Document Strategy Meeting
6.	Send draft information to the agreed signatories for comments (as frequently as required).
7.	Incorporate the comments into the draft documentation ensuring guidelines (RM09, RM08 and RM07) are followed.
8.	Review a selection of sample drawings across each discipline to ensure they are As-built and that the naming conventions and the Imperial College title blocks/sheets have been used, before sending to the Building Information Manager to ensure EIR compliance.
9.	Feedback EIR comments to relevant parties to ensure any changes are made.
10.	RAG (red, amber, green) report to the Contractor and Imperial College on the progress of manuals and reviews to track performance against planned progress. Where necessary, escalate any delay to the Project Manager.
11.	Liaise with the Principal Designer to Incorporate the health & safety file within the building fabric manual.
12.	Liaise with the Contractor to ensure the asset register is included with manuals.
13.	Cross reference across manuals where necessary (including specialist manuals).
14.	Attend project handover planning meeting where requested by the Contractor to agree dates of key tasks during the commissioning to Completion phase.

STAGE 6 HANDOVER AND CLOSEOUT

PROJECT DUTIES:

1.	Send the final draft manuals to the named reviewers as agreed at the record document strategy meeting, accompanied by the comments tracker for review and sign-off.
2.	Ensure all literature is incorporated within the manual and produced as a fully hyperlinked pdf file
3.	Send the finalised hyperlinked pdf manual and associated drawings and asset register to the Estates Records & Archives Officer for composition review.
4.	Produce the final manuals once the Composition Review is complete with no further comments and the Project Manager has checked and confirmed that all necessary parties have approved the final drafts.
5.	Deliver the final digital copies via the agreed method and the Archive hard copy to the Estates Records & Archives Officer accompanied by a completed comments tracker and sign-off sheet/letter.