HEALTH & SAFETY

Construction (Design and Management) (CDM) Procedure

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1 Purpose

This procedure describes the Control Points used by Crossrail to provide assurance that all applicable Construction (Design and Management) Regulations (CDM) duties have been discharged.

Crossrail Ltd (CRL) has made a commitment to excellence in Health and Safety. This commitment is defined in Health and Safety Standard for Contractors and Partners, (Ref 1).

Excellence in the application of good practice to CDM compliance is an important part of Crossrail's health and safety commitments. Whilst the processes and procedures described in this document form part of this, those with a CDM responsibility shall also seek guidance:

- from the health and safety team,
- in the Construction (Design and Management) Regulations 2015 ‘L series’ guidance (Ref 4).

2 Scope

This procedure applies to all CRL design and construction activities where Crossrail has a CDM duty, including where other organisations have been Elected as Client as defined under CDM Regulation 4.
3 Definitions

**Guidance**

**CAM**
CDM Assurance Managers (CAMs) are senior members of staff who are responsible for the Control Point process.

**CDM**
Construction (Design & Management) Regulations 2015.

**CDM Client**
A CDM Client is an organisation or individual for whom a construction project is carried out.

**CDM Integrator**
The CDM Integrator is a Crossrail post holder that provides assurance to Crossrail senior management on the CDM arrangements.

**CRL**
Crossrail Ltd.

**Principal designers**
Designers appointed by the client in projects involving more than one contractor.

**Control Point**
Control Points are critical stop/go points used by the Crossrail CDM process to ensure that CRL’s duties are being met.

**Designer**
Any person, in the furtherance of a business, who prepares or modifies a design or arranges for or instructs any person under his control to do so.

**eB**
The Crossrail electronic document management system.

**HSE**
Health and Safety Executive.

**PEI**
Project Execution Information as defined by Control Point 1.

**Principal Contractor**
Principal Contractors are usually the main or managing contractor.

**Relevant Director**
This refers to the Programme Director or the Finance Director.

**RIBA**
Royal Institute of British Architects.

**Workscope**
A design or construction project within scope of CDM where Crossrail Ltd has a CDM duty.
4 Roles and Responsibilities

4.1 General Arrangements

Crossrail is, in most cases, the Client and Principal designer for projects it initiates. It discharges these duties through a range of defined responsibilities and activities undertaken by a wide range of Crossrail post holders. The ‘distributed model’ is described in the CDM Responsibility Matrix (Ref 2).

Critical stop/go points, referred to as Control Points, are used by this Crossrail CDM process to ensure that Crossrail Ltd’s (CRL) duties are being met. The management of the Control Point process is delegated to CDM Assurance Managers (CAMs) through the completion of Control Point 1.

The responsibilities below identify those posts that relate to this procedure; however they are not exhaustive and do not define the extent of all CDM related responsibilities.

Line Managers are responsible for ensuring that their staff members are inducted into roles, including activities on the CDM matrix.

4.2 Programme and Finance Director (Relevant Director)

The Programme Director has overall responsibility for CDM and the Control Point process within the Delivery Directorate. The Finance Director has this responsibility within the Land and Property Directorate. Where delegation of the management of Control Points is made to a CAM, the Relevant Director shall:

- detail in the Project Execution Information (PEI) the scope of the delegation to the CAM,
- ensure that the CAM is competent to undertake the role and has sufficient seniority, experience and authority to discharge the responsibility and
- ensure that all design and/or construction work under the control of their Directorate is covered by a PEI document. (See section 6.3.1 and appendix C)

Where no delegation is made the Relevant Director shall be responsible for the management of the Control Point process described in this procedure.

4.3 CDM Assurance Manager (CAM)

CAM's have overall responsibility for the Control Point process, for the scope of work delegated to them and shall:

- ensure that a Project Manager is appointed to fulfil the responsibilities identified in this procedure. Where no appointment is made, the CAM shall have the Project Manager responsibilities,
- ensure the competency of their teams,
- ensure the effective development of the PEI,
- sign-off properly completed Control Point Certificates prepared by the Project Manager, only when they have reviewed and are satisfied, that the evidence provided address all relevant Control Point criteria,
- sign Health and Safety Executive (HSE) project notifications (F10) on behalf of Crossrail,
- consult with the relevant Health and Safety Managers to determine if it is appropriate to appoint an external Principal designer for any works as per this procedure and
- where an external Principal Designer appointment is required, the CAM shall ensure that this appointment is made at the earliest stages of the project.
The CAM shall liaise with the Procurement Director to:

- define the procurement plan and
- ensure that there is an adequate definition of scope; that through the tender evaluation and, if relevant prequalification evaluation, only competent persons or organisations are appointed.

In limited circumstances (sickness, holiday etc), in consultation with the Relevant Director, the CAM may delegate some or all of the responsibility to another CAM. Delegation shall be in writing and for an agreed fixed period. Where no delegation is made, the Relevant Director shall be responsible for the management of the Control Point process described in this procedure.

4.4 Technical Director

The Crossrail Technical Director shall:

- ensure cooperation and coordination of the design and
- monitor the performance of Designers and their compliance with their arrangements.

4.5 Project Manager

Project Managers are responsible for developing and collating evidence for the Control Points and preparing the Certificate for signature by a Relevant Director (Control Point 1 only) or a CAM for all other Control Points.

Project Managers shall:

- Ensure that no work scope (design, construction project etc) is proposed for movement through a Control Point, unless its criteria has been met or allowed to pass the Control Point without a valid Control Point Certificate,
- document the passing through each Control Point using the Control Point Certificate and take reasonable steps to ensure that the documentation or actions required to meet the acceptance criteria have been completed,
- pass Control Point Certificates to the CAM for sign-off and authorisation,
- where there is a Client election in place, detail their arrangements for compliance with CDM Regulations 4 and 8 in their CDM Implementation Plan,
- prepare HSE project notifications (F10) and pass to a CAM to sign on behalf of Crossrail and copy to PC for posting on site,
- ensure that health and safety is a specific agenda item at minuted progress meetings and that CDM compliance is regularly reviewed and
- seek specific advice from the Health and Safety Manager/Adviser as to when an external Principal designer is to be appointed.

Where an external Principal designer is not appointed, the Project Manager shall arrange to:

- ensure suitable arrangements for coordination of health and safety measures during planning and preparation of the construction phase, including cooperation and coordination between duty holders detailed in Regulations 8 and 11 of CDM,
- ensure cooperation between Designers and the Principal Contractor during the construction phase in relation to design,
- ensure the application of general ‘principles of prevention’ as per Appendix 1 of The Construction (Design and Management) Regulations 2015 ‘L series’ guidance: liaise with the Principal Contractor regarding the contents of the Health and Safety file,
- identify and collect the preconstruction information and provide to all Designers and Contractors appointed by Crossrail and others who need it,
• monitor Designer’s compliance with their own arrangements, in so far as the design is carried out during construction and
• prepare, review and update the Health and Safety File and make it available at the end of the construction phase.

No Project Manager shall engage to procure design or construction activities unless authorised to do so by an appointed CAM.

All documents referred to in this procedure and supporting evidence shall be stored on the Crossrail electronic document management system. (eB, Management of CDM)

In limited circumstances (sickness, holiday etc), in consultation with the CAM, the Project Manager may delegate some or all of the responsibility to another Project Manager. Delegation shall be in writing and for an agreed fixed period.

4.6 External Principal Designer (PD)
Where appointed, an external PD shall:
• Meet the duties defined under CDM Regulations 8, 11 and 12.
  An external PD shall also provide specific advice in the form of a declaration on the acceptability of:
  • the adequacy of the time being allowed for Designers, Contactors and Principal Contractors to safely undertake their activities,
  • the adequacy of the arrangements for coordinating their own activities with others involved in the project and
  • The competence of duty holders relative to the project and information made available.

Where agreed with the relevant Health and Safety Manager or CDMI, the PD may be required to monitor Designer's and Contractors' compliance with their own arrangements.

The Principal Designer shall be integrated into the appropriate Crossrail Team and discharge its duties applying any relevant Crossrail procedures or arrangements.

4.7 Designers
The Crossrail Technical Director shall monitor the performance of Designers (including where CRL is a Designer under the Regulations) throughout the design stage and their compliance with the arrangements for CDM.

For more detail on the requirements of health and safety coordination with design organisations, refer to the Crossrail procedure - Designing for Health and Safety (Ref 7).

4.8 Health and Safety Team
The Health and Safety Managers/Advisers shall:
• provide proactive advice and support to Project Managers and CAMs,
• provide advice to the Project Manager on whether an external PD needs to be appointed, and the scope of work for the Principal designer and
• carry out the competence assessment of Contractors through the tendering process.
4.9 CDM Integrator

The CDM Integrator shall:

- provide assurance to Crossrail senior management on the company's CDM arrangements,
- facilitate internal coordination and cooperation between Area Directors, Project Managers and others in relation to CDM,
- set the standards for the delivery of CDM,
- maintain the list of CAMs and their areas of responsibility,
- produce a master schedule and report on expired F10’s and those due to expire,
- maintain a record of Client elections and give advice on their scope and applicability to the project and
- develop the standard for the content and structure for the final Health and Safety files and maintain an oversight.

5 Control Points Procedure

Control points are clear stop/go delivery points (or Gates) at which certain criteria shall be achieved before any workscope moves forward.

Assurance of compliance with the CDM Regulations and the Company's arrangements is achieved through the application of this procedure. The Programme Director and Finance Director can delegate management of the process (through Control Point 1) to others. For the purposes of this procedure where a delegation is made, post holders will be collectively known as CAMs and can include the:

- Area Delivery Director,
- Operations Director,
- Technical Director,
- Land and Property Director, and
- Chief Engineer.

The scope of the delegation shall be defined in the PEI document (see Control Point 1) and, where it is a normal part of the post's responsibilities, be identified in the post job description. A signed copy of the job description shall be maintained by the Talent and Resources Director.

A flow diagram detailing action points and those responsible can be found in Appendix A.

5.1 Identifying the CDM ‘Client’

For all design and construction works undertaken as part of the Crossrail Programme, the default position shall be that Crossrail is the ‘Client’ as defined within CDM. This shall remain the case until such time as there is clear agreement with another party, that they have accepted the role under CDM Regulation 4 (See 6.2).

5.2 Client Election

Crossrail has identified, in formal agreements, the organisations that shall be the CDM ‘Clients’ for:

- Network works (for example Network Rail (NR), London Underground (LU), Dockland Light Railway, (DLR)
- Specific developments (e.g. Canary Wharf, Berkeley Homes, Utilities etc.) and
- Oversite developments.
This list is not exhaustive and where there is any doubt, advice shall be sought from the Crossrail Legal Department.

During the development of the project it may become apparent that further work is best managed by these organisations or by other organisations. Where this is the case, the Project Manager, shall seek agreement with that other party. Where agreement is reached that the other party shall be the Client Elect then the CAM shall send a copy of the Standard Letter (Appendix D) or similar, approved by the Crossrail legal team.

Post Client Election, the Project Manager shall ensure that any updated F10 notifications sent by the Client Elect are copied to the F10 inbox F10@crossrail.co.uk.

The Project Manager shall detail the Elected Client arrangements for compliance with Regulation 8 in the relevant CDM Implementation Plan.

As part of the PEI and/or the CDM Implementation Plan, workscopes where another party has, through agreement, become the Client Elect shall be identified.

5.3 Control Points Overview

The six Control Points which shall be passed are as follows:

- Control Point 1: Project Execution Information
- Control Point 2: CDM Implementation Plan
- Control Point 3: Appointment of Designer
- Control Point 4: Appointments of Contractors and Principal Contractors
- Control Point 5: Site Mobilisation and Start of Construction
- Control Point 6: Works Completion and Site Demobilisation

The passing through of each Control Point shall be documented by the Project Manager using the Control Point Certificate (See Appendix B): The certificate and the appropriate supporting evidence shall be prepared by the relevant Project Manager.

Note: Control points 3 and 4 below can be combined where the Designer and the Principal Contractor are appointed at the same time.

The diagram below graphically illustrates the relationship between project progression and the agreed Control Points.
5.3.1 Control Point 1 - Project Execution Information

The Relevant Director shall detail in the Project Execution Information (PEI) the scope of the delegation to the CAM. The PEI shall contain where relevant and known at the time it is drawn up:

- The scope of the project(s) for which the CAM is responsible including any enabling works. This can be described in terms of geographical locations or contracts but must include the boundaries or limits and any exclusions;
- known internal and external programme interfaces that the CAM must manage ensuring appropriate cooperation and coordination;
- relevant information on any project with an external PD appointment and
- Details of any significant client elections in place.

It is not intended that the PEI should be a lengthy document; however it shall provide sufficient detail for everybody to understand the scope of responsibility. Appendix C provides typical headings.

The Control Point is passed by the signed certificated authorisation by the relevant Director (See Appendix B for Control Point Certificate).

The PEI shall be maintained and the Control Point Certificate re-signed when a new appointment is made or there is a significant change in scope.
A copy of the PEI shall be stored in the Crossrail electronic document management system (eB, Management of CDM) and made available on request to any Crossrail team members named in it and any interfacing Project Manager or CAM.

5.3.2 Control Point 2 – CDM Implementation Plan

The purpose of the CDM Implementation Plan (CDM IP) is to provide detail on the CDM arrangements for each project(s) at its particular site(s). Appendix E contains a template for the CDM Implementation Plan.

The Project Manager shall be appointed and arrange for the CDM IP to be prepared and passed for review to the Health and Safety Manager/Adviser. The Project Manager shall approve the CDM IP when satisfied it is adequate for the works and it meets the requirements of this procedure.

The CDM Implementation Plan shall provide information on:

- CDM configuration issues such as sequencing of work;
- times of notifications or updates to notifications to HSE;
- timing of appointments of Principal Contractors, Contractor and Principal Contractor interfaces;
- third party access/egress, programme overlaps and phasing of Principal Contractor roles;
- the arrangements for ensuring that Crossrail duties, in respect of Elected Clients and their appointed PD, for cooperation and the provision of preconstruction and other information with regard to CDM Regulation 8 confirmation of the PD for the works associated with the project (where Crossrail is not the PD ) and/or the need to appoint another organisation as such, along with the timescale for doing so;
- identify where, or how, information available to Crossrail to meet the duty under CDM Regulations 8 and 11 have been given or made available to the Project; and
- identification of any proposed workplaces that are expected to be constructed where it will be necessary to ensure compliance, in respect of the design and the materials used, with any requirements of the Workplace (Health, Safety and Welfare) Regulations 1992.

Where the interfaces are complex and likely to frequently change, the CDM Implementation Plan shall signpost other local documents, arrangements and plans. Project Managers shall be able to demonstrate that these arrangements are robust, effectively communicated and monitored at all levels.

The CDM Implementation Plan should be supported by drawings, tables and figures necessary to aid understanding.

The planning of Principal Contractor’s appointments described by the Implementation Plan shall be consistent with the Crossrail procedure, Guidance on the Allocation of Principal Contractors (Ref 6) and commensurate with information known about the project at the time it is prepared. Where the project is more complex, or conflicts arise, this should be discussed with the CDM Integrator.

Where the project is a less complex build than the main programme, the CDM Implementation Plan is expected to be a short document outlining the arrangements, organisation of CDM responsibility and timings for appointments or transitions.

The CDM IP shall be reviewed and validated at a minimum every six months or after any significant change or amendment to legal requirements.
• control Point 1 has been passed;
• the CDM Implementation Plan has been reviewed by the Area Health and Safety Manager/Adviser and approved by the PM; and
• where relevant, an initial F10 notification has been made to the HSE

The Control Point Certificate shall be signed by the CAM to identify acceptance of the first issue of the CDM IP for Control Point 2. There is no requirement to revisit Control Point 2 for subsequent iterations of the CDM Implementation Plan (unless there is a change in scope/organisation) as these shall be addressed in subsequent Control Points.

No construction work shall commence until the CDM IP has passed Control Point 2.

5.3.3 Control Point 3 – Appointment of a Designer

Control Point 3 is passed once both of the following pre designer appointment criteria and the post designer appointment criteria have been met.

Before any appointment of a Designer is made the following pre appointment criteria shall be met where relevant:

• Control points 1 and 2 have been passed;
• there is an up-to-date CDM Implementation Plan that has been approved by the Project Manager;
• there is a defined process for the management of the design and its approval;
• there are documented arrangements in place for monitoring the Designer’s implementation of arrangements for the development of a design capable of being safely constructed, maintained, used and in the future dismantled/demolished;
• pre-construction information has been identified as adequate and passed to the Designer and that due diligence checks have been carried out on information provided by previous Clients;
• the procurement process has been complied with and has through pre-qualification and tender evaluation, ensured appropriate weighting for health and safety so as to achieve Crossrail’s commitment to health and safety excellence; and
• The Project Manager is appointed and where relevant, an external PD is appointed.

If an external PD has been appointed the following declarations must be made by the PD on the acceptability of:

• The competence of the proposed Designer;
• the timescales given to the Designer to meet their duties; and
• The information made in compliance with CDM Regulation 8 and 11 provided to the Designer during the invitation to tender and updated where necessary prior to appointment.

Where no external PD has been appointed, the Project Manager shall, following advice from their Health and Safety Manager/Adviser, collate evidence to identify that:

• the competence of the Designer has been assessed and they are considered competent;
• adequate timescales have been agreed for the Designer to complete their work and comply with their CDM duties;
• the contract requirements include compliance with CR-XRL-Z7-GPR-CR001-00018 Health, Safety and Environment Standard; Contractors and Industry Partners;

Control Point 3 shall be passed once the following post Designer appointment criteria are met and:

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• the appointed PD is identified where relevant and;
• the relevant F10 notification has been updated or created by the Project Manager and has been
  sent to the HSE if the project is notifiable.

Where the Contractor is being appointed as a ‘design and build Contractor’ then Control Points 3 and
4 can be combined.

5.3.4 Control Point 4 - Appointments of Contractors and Principal Contractors

Control Point 4 is passed once both the pre contractor appointment criteria and the post contractor
appointment criteria have been met. Before any appointment of a Contractor is made the following pre appointment criteria shall be met
where relevant:

• Control points 1, 2, and 3 have been passed;
• the information made available through Crossrail’s systems and procedures has been provided
to the Contractor during the invitation to tender and updated where necessary prior to
appointment;
• there is an up-to-date CDM IP that has been approved by the Project Manager;
• the design has been managed and approved through the process identified in Control Point 3 (or
where this process has been changed through an acceptable change control process, through
the revised process) or in the case of a design and build appointment that there is an acceptable
process;
• the Project Manager has identified that design requirements have been met, or there is
agreement that the construction contract will be let before the design is finalised, to allow an
opportunity for the Construction Contractor to engage with the designer on constructability;
• the procurement process has been complied with and has been through prequalification and
tender evaluation, has ensured appropriate weighting for health and safety; and
• An external PD is appointed.

If an external PD has been appointed the following declarations by the PD on the acceptability of:

• the competence of the Contractor relative to the project (eg construction or design and
  construction);
• the timescales given to the Contractor in order for them to meet their CDM duties and
• The information made available through Crossrail’s systems and procedures has been provided
to the Contractor during the invitation to tender and updated where necessary prior to
appointment.

Where no external PD has been appointed, the Project Manager shall, following advice from their
Health and Safety Manager/Adviser, collate evidence to identify that:

• the competence of the Contractor has been assessed and they are considered competent;
• the adequacy of the arrangements for coordinating their own activities with others involved in
the project;
• adequate timescales have been agreed for the Contractor to complete their work and comply
with their CDM duties; and
• the contact requirements include compliance with Health, Safety and Environment Standard;
Contractors and Industry Partners.(CR-XRL-Z7-GPR-CR001-00018)

Control Point 4 shall be passed once the following post Contractor appointment criteria are met; and:

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it is confirmed that a Principal Contractor appointment has been made (this may or not be the Contractor appointed under this Control Point, but the arrangement should be defined in the CDM Implementation Plan;

The relevant F10 notification has been updated or created and has been sent to the HSE.

Where the Contractor is being appointed as a ‘design and build Contractor then Control Points 3 and 4 can be combined.

5.3.5 Control Point 5 – Site Mobilisation and Start of Construction Work

The following arrangements shall be in place before construction work is allowed to commence:

- control points 1, 2, 3, and 4 have been passed;
- there is a suitable Contractor Construction Phase Plan for the work; it identifies arrangements for the supply of information required for the Health and Safety File. Guidance is given in the Health and Safety File Template (Ref 8);
- the Construction Phase Plan has been reviewed and assessed as suitable by the relevant Health and Safety Manager/Adviser;
- the requirements in Site Mobilisation, Start-Up and Critical Readiness Review Procedure (Ref 3), have been met or a similar and agreed process for non-Central Section Works;
- there are adequate, documented arrangements for the monitoring of construction on site.

5.3.6 Control Point 6 – Work Completion and Site Demobilisation

The Contractor shall not be allowed to fully demobilise from site until:

- the Project Manager (or external PD where appointed) has received such information from the Contractor on the condition and safety of the site necessary for them to make it safe and secure; and
- the Project Manager has accepted the works as being complete;

Control Point 6 shall be passed once:

- the PM has ensured the Health and Safety File for the works has been developed and is complete to the required form and quality;
- the Health and Safety File has been reviewed and assessed as suitable by the relevant Area Health and Safety Manager/Adviser.
6 Appointments and Other Responsibilities

6.1 Procurement and Appointment of Duty Holders

The procurement process shall be carried out in accordance with the relevant Crossrail procedures. The Procurement Director shall take advice from the Health and Safety Manager/Adviser to ensure that only competent persons or organisations are appointed.

The Project Manager shall in collating evidence for the passing of a Control Point test the following:

- the process to assess the competence is compliant with the Construction (Design and Management) Regulations 2015 ‘L series’ guidance;
- it includes where relevant, the opportunity for the tendering organisation to demonstrate competence through a worked example (preparation of a risk assessment, method statement and Construction Phase Plan); and
- the qualification and experience required to be demonstrated for site personnel is proportionate to the risk associated with the work.

6.2 CDM Coordination

Crossrail has appointed itself as PD. However, the PD function may be contracted out to a third party organisation. Enquires addressed to the PD should be forwarded to the relevant CAM.

6.2.1 F10 Notification

HSE project notifications (F10) shall be prepared by the Project Manager (unless an external PD has been appointed) and shall be signed by the CAM on behalf of Crossrail. See Appendix G for guidance on completing the F10.

The CDM Integrator shall make arrangements for a central record of all F10 notification forms issued.

The CDM Integrator shall provide advice to the relevant Programme or Finance Director and CAM on the structuring of Crossrail’s F10 notifications.

6.2.2 Pre-construction Information

The Project Manager and/or Project Engineer/Engineering Manager is responsible for ensuring that pre-construction information is available. Also for ensuring the timely delivery of new or updated pre-construction information or other information necessary for the Designer, Contractor and the external PD to ensure the safety of those that need it or are involved in construction work. Specific attention shall be paid to identifying interface issues. This information is critical to enable them to identify hazards and risks associated with the design and construction work.

This information shall be provided:

- in the Preconstruction Information Pack at the tender stage of all design and construction procurements;
- during tender process where any relevant updates shall be issued;
- during contract award and
- at any time after the appointment where the information is needed by the Designer, Contractor or PD.

6.3 Principal Contractors

There shall only be one Principal Contractor per site, unless an alternative arrangement has been approved in principle in discussion with the Health and Safety Director or the HSE.
Project and site scenarios have been established that enable the effective planning of site arrangements necessary for the safe execution the work for each individual project. Further information can be found in Guidance on the Allocation of Principal Contractors (ref 6). These generic arrangements have been reviewed and discussed with the HSE.

6.3.1 Construction Phase Plan

Where the project is notifiable, the Principal Contractor shall, before the start of the construction phase, prepare a Construction Phase Plan (CPP).

The Project Manager with advice from the Area Health and Safety Manager/Adviser shall ensure that the arrangements in the CPP are robust and document how the construction phase is to be planned, managed and monitored.

6.4 Property Acquisition

Property shall be managed in accordance with the procedure Securing Acquired Properties Procedure (Ref 5)

On the day of acquisition property shall be formally handed over to the relevant CAM in the Delivery Directorate, except where the property does not relate to the delivery of Crossrail. In such cases the Finance Director shall ensure that an appropriate CAM is appointed.

Where the Land and Property Directorate manages the appointment of an oversite developer, then for the purposes of this procedure, the CAM shall appoint a Project Manager to manage Crossrail’s CDM Client duties (as a minimum these are likely to be defined in CDM Regulations 8 and 11 but the full scope shall be identified by the appointee).

7 CDM Assurance

7.1 Audit and Assurance Checks

The Crossrail audit programme includes audits and checks to provide assurance on legal compliance and compliance with this procedure. In addition, monthly risk based checks are carried out by Crossrail on site safety teams.

These checks include the review of key Client/PD/PC documents and the application of the requirements in practice. Validation sample checks are also completed by the CDMI to validate these returns. Further detail is contained in the Health and Safety Assurance Procedure (Ref 9).
8 Reference Documents

<table>
<thead>
<tr>
<th>Ref:</th>
<th>Document Title</th>
<th>Document Number:</th>
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</thead>
<tbody>
<tr>
<td>2.</td>
<td>CDM Responsibility Matrix</td>
<td>CR-XRL-Z7-GPD-CR001_Z-50004</td>
</tr>
<tr>
<td>4.</td>
<td>The Construction (Design and Management) Regulations 2015 'L series' guidance</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Securing Acquired Properties Procedure</td>
<td>CRL1-XRL-O5-GPD-CR001_Z-50001</td>
</tr>
<tr>
<td>7.</td>
<td>Designing for Health and Safety</td>
<td>CR-XRL-Z7-GPD-CR001_Z-50002</td>
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</tbody>
</table>

9 Standard Forms / Templates

<table>
<thead>
<tr>
<th>Ref:</th>
<th>Document Title</th>
<th>Document Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>CDM Control Point Completion Certificate</td>
<td>CR-XRL-O3-ZTM-CR001-50002</td>
</tr>
<tr>
<td>B.</td>
<td>Construction Design &amp; Management Regulations Implementation Plan</td>
<td>CR-XRL-O3-ZTM-CR001-50001</td>
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</tbody>
</table>
## Appendix A: CDM Flow Diagram

### CDM FLOW DIAGRAM

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity Description</th>
<th>Inputs/Outputs</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>Start</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.01</td>
<td>Appoint CDM Assurance Manager (CAM)</td>
<td>CAM to produce Project Execution Information. Relevant Director to sign certificate. (Control Point 1)</td>
<td></td>
</tr>
<tr>
<td>1.02</td>
<td>Appoint Project Manager (PM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.03</td>
<td>CDM Implementation Plan</td>
<td>CAM to advertise PIP. Project Manager to approve PIP. H &amp; S Manager/Adviser to review. (Control Point 2)</td>
<td></td>
</tr>
<tr>
<td>1.04</td>
<td>Create Project in eB</td>
<td>CAM to sign certificate. (Control Point 2)</td>
<td></td>
</tr>
<tr>
<td>1.05</td>
<td>Appoint external PD if required</td>
<td>H &amp; S Manager/Adviser to advise</td>
<td></td>
</tr>
<tr>
<td>1.06</td>
<td>Prepare &amp; Sign F10.</td>
<td>CM to approve and sign F10</td>
<td></td>
</tr>
<tr>
<td>1.07</td>
<td>Submit F10 to HSE</td>
<td>F10 to be uploaded on eB. Sent to H &amp; S Admin and also when updated.</td>
<td></td>
</tr>
<tr>
<td>1.08</td>
<td>Prepare and provide Pre-Construction Information to Designers.</td>
<td>H &amp; S Manager/Adviser to carry out assessment, PM to approve Competence Assessment.</td>
<td></td>
</tr>
<tr>
<td>1.09</td>
<td>Complete and Approve Competency Assessment for Designer</td>
<td>H &amp; S Manager/Adviser to carry out assessment, PM to approve Competence Assessment.</td>
<td></td>
</tr>
<tr>
<td>1.10</td>
<td>Appoint Designer. Update F10.</td>
<td>CAM to sign certificate. (Control Point 3)</td>
<td></td>
</tr>
<tr>
<td>1.11</td>
<td>Initiate Design Start</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.12</td>
<td>Manage Design</td>
<td>Design may cover more than one project</td>
<td>Update implementation plan. The RE provides oversight and co-ordination.</td>
</tr>
<tr>
<td>1.13</td>
<td>Co-ordinate monthly Risk Register Review Meeting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.14</td>
<td>Prepare Pre-Construction Information Pack</td>
<td>Designer to collate information and prepare initial document, input required from PM or PD &amp; RE</td>
<td></td>
</tr>
<tr>
<td>1.15</td>
<td>Review Pre-Construction Information Pack</td>
<td>Verify POP uploaded to eB</td>
<td></td>
</tr>
<tr>
<td>1.16</td>
<td>Procurement &amp; Contractor Selection</td>
<td>Engineer to select Principal Contractor. H &amp; S Manager/Adviser to review</td>
<td></td>
</tr>
<tr>
<td>1.17</td>
<td>Complete Competency Assessment for Principal Contractor</td>
<td>TTE S Manager/Adviser to carry out assessment, PM to approve Competence Assessment.</td>
<td></td>
</tr>
<tr>
<td>1.18</td>
<td>Appoint Principal Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.19</td>
<td>Update F10 and provide ready for posting at site</td>
<td>PM to update F10. PM to verify F10 updated to the eB. PC to post F10 on site. CAM to sign certificate. (Control Point 4)</td>
<td></td>
</tr>
<tr>
<td>1.20</td>
<td>Principal Contractor to develop Construction Phase Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.21</td>
<td>PM to review Construction Phase Plan</td>
<td>H &amp; S Manager/Adviser to review (activities)</td>
<td></td>
</tr>
<tr>
<td>1.22</td>
<td>PM to accept Construction Phase Plan</td>
<td>Verify CFP uploaded to eB.</td>
<td></td>
</tr>
<tr>
<td>1.23</td>
<td>PM to authorize Construction</td>
<td>Work held until issues resolved</td>
<td></td>
</tr>
<tr>
<td>1.24</td>
<td>Principal Contractor to undertake Construction</td>
<td>H &amp; S Manager/Adviser to supervise risk-based monitoring.</td>
<td></td>
</tr>
<tr>
<td>1.25</td>
<td>Design Principal Contractor to develop Health &amp; Safety File</td>
<td>H &amp; S Manager/Adviser to provide advice on information/format.</td>
<td></td>
</tr>
<tr>
<td>1.26</td>
<td>PM to complete Health &amp; Safety File</td>
<td>Uploaded to eB.</td>
<td></td>
</tr>
<tr>
<td>1.27</td>
<td>PM to handover Health &amp; Safety File upon completion of package/project</td>
<td>H &amp; S Manager/Adviser to advise. CAM to sign certificate. (Control Point 6)</td>
<td></td>
</tr>
<tr>
<td>1.28</td>
<td>End</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11 Appendix B: Guidance on the Headings for a PEI (Project Execution Information)

The list below provides guidance on the headings that could be used to develop and PEI

1. **Responsibilities**
   Identification of who has Client responsibility within the scope of the PEI

2. **Scope**
   The Scope of the PEI

3. **Elected Clients**

4. **Internal Interfaces**
   Crossrail internal Interfaces with other duty holders

5. **External Interfaces**
   Relevant Interfaces.
12 Appendix C: Standard Client Election Letter

Date

Name and address here

Dear name,

Crossrail: work package Works on behalf of Crossrail – Construction (Design and Management) Arrangements

Further to our recent meeting/communication with name to discuss the Construction (Design Management) (CDM) duty holder arrangements for work package to be procured by 3rd party on behalf of Crossrail at site address, Crossrail wish to formally transfer the roles and responsibilities of the CDM Client and Principal designer to third party.

As the project originator, Crossrail are legally the CDM Client at the start of the project. At this early stage, Crossrail is the Client and Principal designer we have issued the initial Notification of Construction Project to the HSE for the site (see copy enclosed).

Third party will be carrying out the detailed specification and delivery of the project on their own infrastructure, and will thus be best placed to manage the CDM Client duties. Crossrail wishes to provide third party with the practical authority to discharge the CDM Client’s duties. Third party will need to appoint their own Principal designer once they assume the CDM Client role.

Under Regulation 4 of the Construction (Design and Management) Regulations, in order to transfer the CDM Client duties to third party:

Third party will need to elect in writing to the HSE, to be treated for the purposes of Construction (Design and Management) Regulations, as the only CDM Client. Crossrail will retain duties in Regulations 8 in so far as those duties relate to information in their possession, which Crossrail will provide to third party.

Crossrail request that third party provides them with the following:

- Copy of latest F10 Notification and any additional notifications issued in future
- Client election letters sent by 3rd party to the HSE.

Enclosed for your information is a copy of the Initial Notification of Construction Project form for these works, which we have issued to the Health and Safety Executive.

We look forward to your response regarding agreement to the above arrangements.

Yours faithfully,

Crossrail Health and Safety Director/ Crossrail Area Delivery Director

cc: names

Enc. F10 Initial Notification site ref
13 Appendix D: Submitting F10

All F10s must be completed and submitted electronically to HSE following the process below:

Completing Initial F10

1. Contact F10@crossrail.co.uk and obtain F10 Register reference number.
2. Obtain document number from eB (refer to important note below regarding document numbers).
3. Go to HSE website and complete the Initial F10 Notification referencing obtained Register and eB numbers in description field and ensuring all the information is accurate. In most cases Crossrail Ltd will be the Principal designer. The Area Health and Safety Manager should be contacted for advice if required.
4. On the F10 Declaration screen select ‘Print/Save form details’ button. The printable version will load in a separate browser window.
5. Make a note of the form's serial number, submit F10 to HSE and forward email confirmation to F10@crossrail.co.uk.
6. Obtain the signature of the Area Director (or designated CDM Assurance Manager) in the Client signature box on the F10.
7. Scan and save a PDF version of the signed F10 and upload it onto eB.
8. Email the PDF F10 as an attachment and also the eB link to the Area Director (or CDM Assurance Manager), Project Manager and any organisation named in it e.g. Designer and Principal Contractor etc., cc the appropriate Health & Safety Advisor and F10@crossrail.co.uk, this will ensure the link gets added to the F10 register and status report.

Completing Additional F10

Updating F10 previously submitted to HSE via post

1. Please use the F10 E-Form and follow the process for Initial F10 submission as above. When you are typing in the Description of Project field on the second page of the form, please state that you have already submitted an initial notification by the old method and you are updating using the E-Form. HSE will then be able to cross reference with the original notification.

Updating F10 previously submitted to HSE electronically

1. To provide additional information, you’d need serial number of the initial (or subsequent) notification and the Principal designer email address.
2. Go to HSE website, select “Update information” option on F10 form, enter the serial number and email address and retrieve the details.
3. In the project description field and change F10 register reference to the next revision (e.g. initial - F10 Ref. 213, Updated - F10 Ref. 213.2). Keep the same document number from eB that was on the initial F10.
4. Ensure any changes to durations, work scope etc. are accurate. The principles and rules to complete the form when you supply updated information are the same as for an initial notification.
5. On the F10 Declaration screen select ‘Print/Save form details’ button. The printable version will load in a separate browser window.
6. Make a note of the form's serial number, submit F10 to HSE and forward email confirmation to F10@crossrail.co.uk.

7. Obtain the signature of the Area Director (or designated CDM Assurance Manager) in the Client signature box on the F10.

8. Scan and save a PDF version of the signed F10 and upload it onto eB.

9. Email the PDF F10 as an attachment and also the eB link to the Area Director (or CDM Assurance Manager), Project Manager and any organisation named in it e.g. Designer and Principal Contractor etc., cc the appropriate Health & Safety Advisor and F10@crossrail.co.uk, this will ensure the link gets added to the F10 register and status report.

Document Numbers

F10's are raised against a particular CDM Project and will require updating when there are changes to the respective duty holders or the scope/duration of the project changes.

For many F10's this will mean that whilst it is a contract specific document with all the works being undertaken within a single construction contract, this will not always be the case. Hence, the eB document numbering system must allow for notification prior to agreement on the final delivery arrangements and for changes in Principal Contractor during the construction phase.

Therefore it is not appropriate to include the contract number within the document number and the following format example should be used:

CRL1/PDP/O1/NOX/location code e.g. C101 for Liverpool Street Stn

The CDM Implementation Plan should contain adequate information to outline the F10's required for each location and this document should be used to provide guidance on the notifications that will be necessary.

Information on location codes is available on Crossrail Master Data Intranet page and from F10@crossrail.co.uk

Further Guidance

F10@crossrail.co.uk
https://www.hse.gov.uk/forms/notification/f10.htm
http://connect.crossrail.co.uk/sites/CrossrailConnect/IT/MasterData/Pages/MasterDataHome.aspx