

CDM 20-20 Case Study – Lower Thames Crossing

CDM Duty Holder Strategy

Background

A report *CDM 20-20 vision – changing the culture* was published in May 2021 and reviewed by National Highways Lower Thames Crossing Programme (LTC) Health, Safety and Wellbeing team in March 2022, at the time the LTC CDM Operating Strategy was being drafted. The HSW team agreed it would be beneficial to prepare a case study for National Highways Knowledge Management Purposes and later, following engagement with CONIAC Keeping Pace with Change working group share it with wider industry.

Scheme Description

The National Highways Lower Thames Crossing Programme (LTC) is 14.3 miles of new road connecting M2/A2, A13 and M25 and includes a 2.6 mile tunnel under the Thames.

Scheme Value

£8.2bn

Key Duty Holders

National Highways Integrated Client Team supported by a:

Technical Partner

Integration Partner

Commercial Partner

Delivery Partner Roads North of the Thames

Delivery Partner Tunnels and Approaches

Delivery Partner Kent Roads

National Highways Operations

Local Authority and Third-Party Operations

National Utilities Statutory Undertakers

Regional Utilities Statutory Undertakers



CDM Duty Holder Strategy

The Lower Thames Crossing programme includes three adjoining projects. The CDM Duty Holder Strategy shown below is for one of the projects, Roads North of the Thames, and follows the National Highways Project Controls Framework (PCF) work stages and shows the CDM duties undertaken by selected organisations.

PCF Delivery Stage	0-2	3	4	5	6a	6b	6c	7
	Strategy / Option	Prelim Design	Statutory Procedure	Detailed design	Construction Site preparation	Construction engineering works	Construction commissioning	Closeout operation and maintenance
Project:- Roads North of the Thames								
National Highways Integrated Client Team								
National Highways Technical Partner								
National Highways Integration Partner								
National Highways Commercial Partner								
Delivery Partner Roads North of the Thames (Client's agent re transferring control of construction sites)								
National Utilities Statutory Undertaker (Separate Project with sole control of construction sites)								
Regional Utilities Statutory Undertaker (Work package under Roads North of the Thames Project)								
National Highways Operations								

Key:

Client duties	
Principal Designer duties	
Designer duties	
Principal Contractor duties	
Contractor duties	

Existing Management Arrangements

National Highways Project Control Framework Handbook which includes Stage Gate Assessment Reviews provided the main governance for the programme delivery.

Scheme Specific Management Arrangements

The Integrated Client Team developed a programme management plan which incorporated a Programme CDM Assurance Plan. The assurance plan includes six HSW / CDM assurance activities that occur at various stages of a project delivery lifecycle. The output of the assurance activities are HSW / CDM assurance certificates, which record references of documents that evidence that the defined tasks below have been completed:

Assurance Activity 1 – Assignment of Project Manager

Following an individual being assigned the project manager role for an agreed scope.

- Project scope and assigned project manager
- Assessment of project manager's skill knowledge and experience.

Assurance Activity 2 – Arrangements in Place

Prior to providing tender information to potential suppliers.

- Project management plan.
- Written agreements who is to be treated as client where more than one client.
- Initial F10 notification to HSE.
- Organisational capability assessment of suppliers
- Health, safety and wellbeing Pre-Construction Information.
- Works Information containing expectations for designers and Contractors.

Assurance Activity 3 – Appointment of Supplier

Upon awarding a contract with a supplier.

- Assessment of supplier's proposed organisational capability for managing health safety and wellbeing in design and construction.
- Assessment of supplier's proposed skills, knowledge, experience and training requirements for key posts.
- Assessment of supplier's experience in managing health, safety and wellbeing in design and construction on similar projects.
- Schedule.
- CDM Appointments in writing.
- Updated F10 notification to HSE.

Assurance Activity 4 – Mobilisation of a Construction Site

Prior to issuing permission to mobilise certificate.

- Health, safety and wellbeing pre-construction information.
- Updated F10 notification to HSE.
- Pre-start meeting record.
- Assessment that the Construction Phase Plan adequately address the arrangements for managing the risks for the planned activities and welfare facilities.
- Permission to mobilise certificate.

Assurance Activity 5 – Construction Works Readiness

Prior to issuing permission to commence construction.

- Transfer of Control of Premises form
- Inspection records that confirm suitable and sufficient provision for welfare facilities, access / egress, emergency preparedness / first aid provision, PPE and security / control of access.
- Readiness review record that confirms RAMS have been accepted and construction activity ready to commence.

Assurance Activity 6 – Completion of works

Prior to authorising release of payment for partial / full handover of a construction site.

- Review record of health and safety file information and user operating and maintenance information.
- Transfer of Control of Premises form.

HSW Design for Construction Risk Management

The Technical Partner managed and monitored design risk management undertaken by themselves and other suppliers for the three main projects until the Delivery Partners were appointed.

Delivery Management and Assurance

Health safety and wellbeing delivery management and assurance was led by a National Highways health safety and wellbeing team working with the Integration Partner.

Pre-Construction Information

The Technical Partner was responsible for collating, validating, storing and providing pre-construction information to others.

Health and Safety File

The Technical Partner was responsible for client review and acceptance of health and safety file information. The health and safety file information was stored in a digital asset information model.

Summary

The key benefits using this delivery model are:

- The project was able to have a lean client organisation
- The project created the conditions for the delivery organisation to be innovative.
- The project's arrangements for transfer of control of land and construction sites between parties provided a written record of responsibilities and information shared.
- Having a HSW incident data driven approach ensured the effort in developing engineering and administrative controls was focused on the activities with the highest risk of harm.
- HSW risk management was integrated into the design and construction delivery teams and not a standalone function.
- The updates to health and safety file information is assured through the transfer of control of land process and so facilitates sectional completion of works.