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# CENTRAL SECTION DELIVERY

## Logistics Plan for the Central Section Delivery Area

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## **1 Introduction**

Logistics has a key role to play in the successful delivery of the Central Section Delivery Area by supporting the logistics activities of the main contracts. The scope of this document is to describe the activities and responsibilities the Logistics Function undertakes in providing that support.

## **2 Logistics Objectives**

The objectives of the Logistics Team are to help deliver Crossrail in-line with Target Zero and Crossrails Values. Logistics can have specific impacts on the environmental impact construction has outside the site boundary, and therefore specific objectives relating to these areas as described below.

### **2.1 Health and Safety**

The aim is to have zero accidents in logistics activities. Safe driving, appropriately equipped transport, material handling and storage practices will be actively promoted, through training, auditing and encouraging a safety culture.

### **2.2 Compliance with Crossrail Act and Environmental Minimum Requirements (EMRs).**

The objectives are to ensure standards are well-defined, clearly communicated and monitored to demonstrate adequate compliance is in place.

### **2.3 Time and budget**

Effective management of inbound and outbound materials will support the achievement of overall project timescales and costs by avoiding delays to construction and by enabling effective materials procurement.

### **2.4 Sustainable transport**

The aim is to reduce the number of deliveries and lorry miles and to minimise both CO2 emissions and impact on communities by promoting the use of:

- Rail and water transport where possible to reduce the need for road transport;
- Low-emission vehicles and fuel-efficient driving, where road transport must be used;
- Consolidation of deliveries.

### 3 Logistics Team

The role of the Logistics Team is to:

- Assist the Contractors in delivering the described in section 4;
- Keep the Project Managers informed of the Contractors performance in delivering the logistics scope and escalate any issues to the PM;
- Produce data and reports for use by Crossrail and the Contractors; and
- Assist the Contractors to co-ordinate between themselves where necessary.

The team is organised into the functions described below and shown in figure 1.

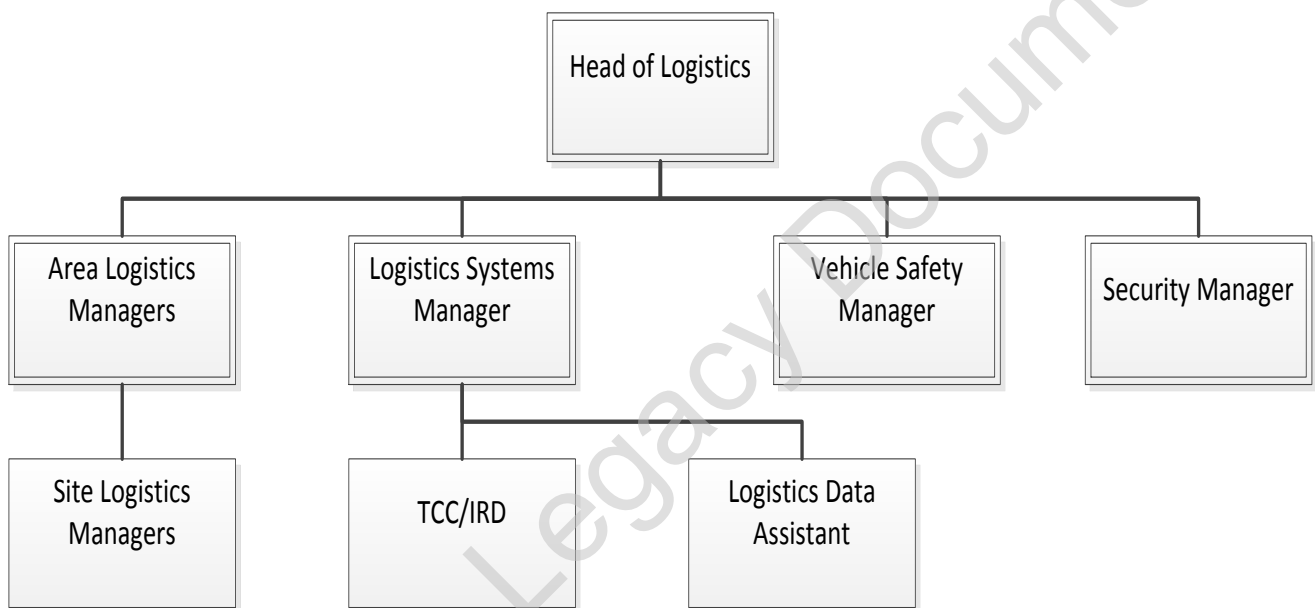


Figure 1: Logistics Organisation

#### 3.1 Head of Logistics

The Head of Logistics is responsible for the logistics scope and all logistics functions described in this document and supporting documents referenced within. All logistics functions report into the Head of Logistics.

### **3.2 Area Logistics Managers (ALMs) & Site Logistics Managers (SLMs)**

The ALMs and SLMs interface directly with the site teams; either the PMs team or the Contractors. The SLMs are allocated specific sites whilst the ALMs are allocated specific Delivery Areas (e.g. Stations, Civils or Systemwide). Their role includes:

- Providing guidance to those on site and assist them in complying with the logistics scope;
- Liaise with the Contractors team and help them to comply with the Contract;
- Liaise with the PM and their team, keeping them informed of the Contractors progress and raising any issues;
- Attending periodic logistics reviews with the Contractors;
- Undertaking vehicle compliance inspections in conjunction with the Contractor;
- Assist the contractors in managing interfaces between contracts such that the overall logistics scope and principles are not compromised;
- Liaise and assist Crossrails Traffic Team (part of the Environment & Sustainability Function) on matters relating to logistics;
- Attend other meetings such as Traffic Liaison Groups (TLGs); and
- Other suitable tasks as directed by the relevant PM or Delivery Director to support the project.

### **3.3 Vehicle Safety Manager (VSM)**

The VSM is responsible for the Lorry Driver Training, maintaining vehicle safety requirements, and other safety initiatives. The VSM manages contract (C2201) for delivery of training courses and ensures that the course remains fit for purpose and is accredited by JAUP (Joint Approvals for Periodic Training) and continues to provide one CPC (Certificate of Professional Competence) day. Further detail can be found in 4.2.

### **3.4 Logistics Systems Manager (LSM) & Traffic Co-ordination Centre (TCC)**

The LSM manages the TCC (& IRD) and is responsible for the Vehicle Movement Planning System (VMPS). Duties undertaken by the TCC are described in 4.3, and those of the IRD in section 5. In addition the LSM manages a Logistics Data Assistant with the responsibility for:

- Operating and maintaining the VMPS and PODFathers;
- Training contractors in the use of the system;
- Liaising with Crossrails IT department; and
- Developing improvements to the system.

### **3.5 Security Manager**

The role of the security function is described in the Central Section Delivery Programme Security Standard (Ref 7).

## **4 Key Logistics Activities and Scope**

The scope of logistics activities is described in Works Information Volume 2B Part 26 Logistics Management, (Ref 8). This sets out the Contractors and Employers roles and responsibilities for Logistics Management. This scope applies to all contracts managed by the Central Section Delivery Area. Logistics support for contracts outside of the Central Section Delivery Area will only be provided if directed to do so by either the Central section Delivery Director or the Programme Director.

A Logistics process flow diagram covering the main requirements of Works Information Volume 2B Part 26 is included in appendix A.

The main areas of logistics scope are:

- Contract Mobilisation;
- Driver, Vehicle and Haulier requirements;
- Coordination of Vehicle Movements; and
- Recording and reporting of logistics activities.

It is the Contractors responsibility to ensure that all Crossrail requirements are communicated to and complied with by their hauliers and supply chain.

### **4.1 Contract Mobilisation**

On appointment of a Contractor for any contract that Contractor will be required to appoint a Logistics Manager and produce a Logistics Plan for approval by the Project Manager (PM).

### **4.2 Driver, Vehicle and Haulier Requirements**

Vehicle and driver safety is a key aspect of Crossrails logistics and Crossrails overall Health & Safety programme. The objective is to improve the safety of drivers and those they interact with on the highway (e.g. vulnerable road users) by implementing measures that focus on the driver (via training), the vehicle (via safety equipment) and the haulier (via accreditation)

The Contractual requirements for drivers, vehicles and hauliers operating on the Crossrail project are described in the following sections.

#### **4.2.1 Drivers**

Frequent drivers as defined in the contract must attend the Crossrail Lorry Driver Training Course. The course counts towards 1 CPC (Certificate of Professional Competence) day for the driver and on completion the driver will be issued with a Driver Training Badge with a unique number. The course is provided free of charge to drivers and delivered via contract C2201.

The TCC (Traffic Co-ordination Centre) operate a booking system for drivers to book onto the course and liaises with the course provider to confirm planned and actual attendance.

Infrequent drivers must read the Driver Information Pack. The pack is produced and provided free of charge by Crossrail.

The Contractor must check the Driver Training Badge of every driver that arrives at site. If the driver is a frequent driver and has not been trained then they are not allowed onto site.

#### **4.2.2 Vehicles**

Vehicles specified in the works information must be fitted with safety equipment including the following “Key 5” pieces of equipment:

- Blind spot mirrors;
- Fresnel lenses;
- Warning signs for cyclists and pedestrians;
- Side under-run guards; and
- Side-scan detection warning systems.

The Contractor must check every vehicle that arrives at site to ensure it is full compliant. If it is not fully compliant then that vehicle must be refused entry to the site.

If a vehicle arrives at site without all of the “Key 5” pieces of equipment then both driver and vehicle are suspended and the process set out in “Consequence Matrix 1 – Non-compliant vehicle arriving at site” must be followed by the Contractor. The Contractor can appeal against the suspension by following the process set out in “Appeals Process Flow Chart”.

#### **4.2.3 Hauliers**

All hauliers must be members of TfLs Freight Operators Recognition Scheme (FORS), minimum Bronze standard within 3 months award of that haulier’s contract.

#### **4.2.4 Other Work Streams to Improve Vulnerable Road User Safety**

The Logistics team will continue to implement other work streams which improve the safety of vulnerable road users such as:

- Supporting Exchanging Places Events with the Metropolitan Police;
- Running Corporate Manslaughter Seminars with an emphasis on road traffic collisions;
- Participating in Crossrails Cycle safety Working Group;
- Running on-line tools, e.g. on line driver training;
- Supporting TfL in their vulnerable road user initiatives, most notably via TfLs CLOCS (Construction Logistics Cycle Safety) group;
- Influencing industry to adopt Crossrail requirements or similar standards and sharing lessons learnt with them; and
- Engaging with the cycling community via organisations such as the CTC (Cycling Touring Club) and the LCC (London Cycling Campaign).

### **4.3 Coordination of Vehicle Movements**

Crossrail contractors operate multiple construction sites in central London, all of which have numerous road deliveries every day. It is important that these deliveries are planned, monitored and co-ordinated with other Crossrail contracts such that they do not cause congestion and do not impact on the Contractors efficiency. To achieve this Crossrail operate a Traffic Co-ordination Centre (TCC) and a Vehicle Movement Planning System (VMPS) which provide assistance to the contractors and records actual deliveries to sites.

The approach to coordination is designed to minimise risk. There is no intention to instruct the contractor or constrain his vehicle operations, but there is every intention to ensure contractors comply with commitments made via the Crossrail undertakings and assurances.



The VMPS & TCC are described below:

- VMPS - The VMPS enables over 400 users to plan vehicle deliveries through a web application, accessed from their PC. It also allows the recording real-time vehicle safety and arrival rates via Personal Data Assistants.
- TCC – The TCC acts as a single point of contact for traffic issues and liaises with contractors, TfL and other external bodies, disseminating key road transport information to the parties that need it. In addition the TCC:
  - Runs the Lorry Driver Training (LTD) booking system;
  - Maintains and operates the suspended driver and vehicle lists, including the operation of the appeals process;
  - Produces dashboards and packs for the periodic contractor reviews and senior management;
  - Where possible attends periodic contractor reviews;
  - Runs searches on the VMPS database to answer queries and produces accompanying reports;
  - Posts traffic information on the VMPS;
  - Reviews contractors VMPS plans to pre-empt conflicts, where plans will have an adverse impact or be non-compliant;
  - Prepares and distributes information on planned external events; and
  - Acts as the Incident Response Desk (IRD), see section 5.

#### 4.3.1 Contractor Requirements for the Co-ordination of Vehicle Movements

The contractors are responsible for communicating all of Crossrails requirements

Prior to actual vehicle movements Contractors are required to plan the deliveries to their site and record these plans on the VMPS. They submit three types of plans as follows:

- A long range plan, 28 days in advance;
- A weekly plan; and
- A daily plan.

In addition Contractors shall produce Site Fact Sheets for all sites and submit them to the TCC.

When making deliveries the Contractor shall ensure that all vehicles:

- Display a Crossrail identifying sign;
- Follow approved lorry routes; and
- Use Lorry Holding Area, which regulate the flow of vehicles into site.

Submissions for lorry routes and lorry holding areas are made by the Contractors via Crossrails Traffic Team.

In addition the Contractors are required to record all deliveries on the VMPS using a hand held device referred to as the PODFather. This device is provided by Crossrail.

Information the Contractor records on the PODFather includes:

- Contract;
- Site;
- Date and time of arrival;
- Vehicle type;
- Vehicle registration;
- Haulier;
- Driver name;
- Lorry Driver Training badge number (if applicable);
- Confirmation of whether the vehicle has followed the correct route;
- Confirmation of whether the vehicle is displaying a Crossrail sign;
- Results of the vehicle safety check , with each individual piece of equipment being recorded as fitted and full operational or otherwise;
- Confirmation of whether the vehicle was allowed on site; and
- Date and time of departure.

#### **4.4 Recording and Reporting of Logistics Activities**

The data collected via the VMPS will be used to produce periodic dashboards. These dashboards will be:

- at high level, across all Crossrail contracts for use by the Delivery team and Crossrail management; and
- at contract level for use by the Contractor and relevant Crossrail staff.

The dashboards will present data including:

- vehicle compliance checks (Contractor & Crossrail);
- compliance by vehicle type;
- compliance by equipment type;
- planned vehicle movements compared to actuals

## **5 Incident Response Desk**

The Incident Response Desk (IRD) is part of the TCC. Its purpose is to receive calls regarding level 1 or level 2 incidents and follow the actions prescribed in the Incident Management Plan (Ref 9).

The IRD operates 24 hours a day, every day of the year, including weekends and Bank Holidays. If, for whatever reason the IRD cannot be staffed the call are diverted to Spring Board who provide out of hours cover. Spring Board are managed by the Crossrail Helpdesk.

## 6 Reference Documents

Ref:	Document Title	Document Number:
1.	The London Freight Plan, TfL January 2008:	<a href="https://www.tfl.gov.uk/cdn/static/cms/documents/london-freight-plan.pdf">https://www.tfl.gov.uk/cdn/static/cms/documents/london-freight-plan.pdf</a>
2.	DfT WebTAG (website for guidance on the conduct of transport studies) Methodology for Plans and Strategies - Valuation of Carbon Emissions:	<a href="https://www.gov.uk/transport-analysis-guidance-webtag">https://www.gov.uk/transport-analysis-guidance-webtag</a>
3.	Environmental Minimum Requirements, updated February 2009:	<a href="http://www.crossrail.co.uk/about-us/crossrail-act-2008/environmental-minimum-requirements-including-crossrail-construction-code">http://www.crossrail.co.uk/about-us/crossrail-act-2008/environmental-minimum-requirements-including-crossrail-construction-code</a>
4.	Construction Consolidation Centres: An Assessment of the Potential for London wide use, TfL, May 2007:	<a href="https://www.tfl.gov.uk/cdn/static/cms/documents/CC-C-wider-use-study-may-07.pdf">https://www.tfl.gov.uk/cdn/static/cms/documents/CC-C-wider-use-study-may-07.pdf</a>
5.	Crossrail Environmental Policy	CR-XRL-T1-PCY-CR001_Z-50001
6.	Egan, J. (1998) <i>Rethinking Construction: Report of the Construction Task Force</i> , London:	<a href="http://constructingexcellence.org.uk/wp-content/uploads/2014/10/rethinking_construction_report.pdf">http://constructingexcellence.org.uk/wp-content/uploads/2014/10/rethinking_construction_report.pdf</a>
7.	Central Section Delivery Programme Security Standard	CRL1-XRL-O5-STD-CRG03-50001
8.	Works Information Volume 2B Part 26 Logistics Management	CRL1-XRL-V3-XWI-CR001-50035
9.	Incident Management Plan	CRL1-XRL-Z7-STP-CR001-50006

## 7 Standard Forms / Templates

Ref:	Document Title	Document Number:
A.	None	
B.		

8 Appendices

Appendix A - Process Map / Flow Chart

CROSSRAIL VEHICLE MOVEMENTS - PROCESS FLOW DIAGRAM

