C412 –Bond Street Station Main Works, Fit Out, M&E

Logistics Plan

CRL Document Number: C412-SKC-R5-STP-C125-50001

Contract MDL reference: C10.001

1. Contractor Document Submittal History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
7.0	18/11/14	D Richmond	M Smith	Claire Carr	For Acceptance
8.0	03/12/14	D Richmond	M Smith	Claire Carr	For Acceptance
Signature					

2a. Stakeholder Review Required? YES ☐ NO ☐

Stakeholder submission required: LU ☐ RfL ☐ NR ☐ LO ☐ DLR ☐ Other: _____

Purpose of submission: For no objection ☐ For information ☐

This document has been reviewed by the following individual for coordination, compliance, integration and acceptance and is acceptable for transmission to the above stakeholder for the above stated purpose.

Sign: _____ Role: _____ Name: _____ Date: _____

Sign: _____ Role: _____ Name: _____ Date: _____

2b. Review by Stakeholder (if required):

Stakeholder Organisation	Job Title	Name	Signature	Date	Acceptance
					☐
					☐
					☐

3. Acceptance by *Crossrail*:

	Crossrail Review and Acceptance Decal	
		This decal is to be used for submitted documents requiring acceptance by *Crossrail*.
☐	Code 1.	Accepted. Work May Proceed
☐	Code 2.	Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated
☐	Code 3.	Not Accepted. Revise and resubmit. Work may not proceed
☐	Code 4.	Received for information only. Receipt is confirmed

Reviewed/Accepted by:(signature)	Print Name:	Position:	Date:

Acceptance by *Crossrail* does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute *Crossrail* approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.

CSJV Review and Approval

Acceptance by *Crossrail* does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute *Crossrail* approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.

CSJV Review and Approval

Department	Name	Title	Signature	Date
Health & Safety	Mark Farrell	H&S Manager	PP: Chantelle Miller C. Miller	03/12/14
Environment	Melissa Wellings	Environmental Manager	Melissa Wellings	03/12/14

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1 Introduction

1.1 Scope

The Costain/Skanska JV are committed to delivering the Bond Street Station Main Works in such a way that it will have minimal impact to the public and local stakeholders.

We will ensure that the access and egress of all vehicles & pedestrians in, out and through the worksites is managed safely.

The procedure detailed within this plan will apply to all construction areas associated with the project. The pertinent details of the works are as follows:

- Contract number – C412
- Related contract details – other contracts which are likely to have an impact on logistics Arrangements for this contract will be BFK C300 SCL.
- C410 – SCL Platform Tunnels
- C300-Grout Shafts
- Utilities Diversions
- Bond Street Station Upgrade (London Underground)

1.2 Purpose

The purpose of this procedure is to define the roles and responsibility and management processes for ensuring compliance with general and specific requirements concerning construction site traffic.

This procedure will take into account the following:

- Legislation
- Safety at Street Works and Road Works – Code of Practice issued by the Department of
  - Transport
- New Roads and Street Works Act 1991
- Highways Act 1980
- Road Traffic Regulation Act 1984 and Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996
- Traffic Signs Manual (Chapter 8), HMSO as modified by TD49, TA61, TA63 and TA64
- Traffic Signs Regulations and General Directions 2003
- The Safe Use of Vehicles on Construction Sites (HSE)
- Planning for Safety (1992), pub. DoT & FCEC
- Project Health, Safety and Environment Plan
- Project Commitments Register
- Section 61 Consent current for the period of the works
- Highways and Street Works Schedule
- Crossrail Environmental Minimum Requirements

1.3 Key Staff

The below table identifies the key staff associated with C412 –Bond Street Station Main Works.

Name	Role	E-mail
James Moloney	Project Director	James.moloney@costain.com
Claire Carr	Project Manager	Claire.carr@costain.com
Mike Field	Construction Manager	Mike.field@costain.com
David Richmond	Logistics Manager	David.richmond@costain.com
Melissa Wellings	Waste Manager	Melissa.wellings@costain.com

1.4 Definitions

The following definitions are fundamental to understanding this procedure:

Highway or Carriageway

Includes the term 'highway', 'road', 'street', 'lane' and where relevant any adjoining 'footway' or 'footpath'.

Traffic Safety Management System

A method chosen to direct traffic through or around CSJV C412 & BFK C300 (grout shaft)

sites to facilitate construction of works.

Traffic Management Operation

Consists of those activities necessary to assemble, maintain, alter, and remove a Traffic Safety and Management System.

Traffic Management Equipment

Consists of all signs and their covers, cones, cylinders, studs, barriers, road markings, signs, lights and traffic signals including their supports and fixings and any cabling, piping, joints, connectors, electricity supply, weighting down and any other item required for a Traffic Safety and Management System.

Highway Authority

The relevant highway authority for the highway, road or bridge as identified in Part 1 of the Highways Act 1980.

Frequent Lorry Drivers

A Frequent Lorry Driver (FLD) is defined as:

All excavated material drivers;

All concrete drivers;

And any driver of a Large Goods Vehicle either supplying or removing materials, plant labour from the site that makes 5 or more round trips in any 12 month period to a Crossrail site. A LGV is any vehicle greater than 3.5 Tonnes gross vehicle weight,

Infrequent Lorry Drivers

An Infrequent Lorry Driver (ILD) is defined as any lorry driver, including those employed by subcontractors and suppliers, supplying or removing materials, plant or labour from the site who is not a FLD.

2 Management Processes and Procedures

CSJV C412 Bond Street is responsible for the Logistics Management of all its activities and those of its subcontractors and suppliers including:

- All logistics activities within the Sites by day & night.
- All logistics activities to deliver the *works;*
- All movement of all Equipment, Plant and Materials and people to and from the Working Areas;
- The removal and treatment of all waste and excavated material;
- The coordination of all his logistics activities with Others, including other Crossrail contractors;
- Developing, planning and implementing logistics solutions to deliver the *works* which support and discharge the *Employer*'s commitments referred to in works information Volume 2A, part 26.1.

CSJV 412 will make a site specific risk assessment of the each access/egress route in conjunction with BFK C300 where the Eastern Ticket Hall and Lorry Holding area. The logistics movements will be planned 28 days, 7 days and 1 day ahead in advance using the Vehicle Management Planning system (VMPS). CSJV will be responsible for booking all C412 deliveries through the VMPS, similarly BFK will be responsible for booking all C300 vehicle movements through the VMPS.

A schedule will be provided by BFK in advance but we all understand that although we plan in advance plans change on a daily and sometimes hourly basis, therefore a daily meeting is vital.
It has been agreed that a co-ordination meeting will be held as & when required where the CSJV C412 Logistics Manager and Administrator as well as the BFK C300 Logistics Manger (Nicholas Prempeh),will be in attendance. The following will be discussed;

- Nature of the deliveries (Where concrete will have priority)
- Number of vehicle movements
- Times for the deliveries
- Discuss which vehicles will go via the Lorry Holding Area (LHA)
- Discuss the rate of deliveries and the space allocated to the site & LHA

All the excavated material will be removed /treated in accordance with the specification. CSJV will coordinate with all Sub-Contractors through coordination meetings and stakeholders (such as LUL) through the TCC and Crossrail coordination meetings.

Please refer to the Site Waste Management plan for further details/procedures relating to waste management

2.1 Traffic Marshalling and vehicle control

All vehicles will report to the lorry holding area, with the exception of BFK shotcrete deliveries which will travel directly to site at an agreed frequency of 1 vehicle per hour.

BFK will check C300 vehicles for compliance at the lorry holding area and book their movements into the POD system. From here C412 and C300 vehicles will be called to site by the CSJV supervisor to avoid congestion during periods of shared access.

The marshals will be in control from the entry point which is where they will check it for compliance, at the vehicles delivery point/location and it egress route.

All vehicles will be marshaled by the Company that has booked the vehicle whether it is a collection or deliveries for both CSJV C412 & BFK C300– i.e CSJV for C412 deliveries and BFK for C300 vehicle movements. This includes the safe marshalling of vehicles off site once each deliver/collection is complete.

Vehicles leaving site onto Brook Street must wait until the pedestrian barriers have been put into place and the instruction to proceed given by the BFK or CSJV traffic marshal. This is a very busy crossing and needs to be carefully managed. Note – safe operation of the site gate and pedestrian barriers on Brook Street requires a minimum of two traffic marshals.

BFK C300 Marshals will also be responsible for the safe control of their deliveries or collections outside of CSJV core hours - including weekends and nights.

The handover of PC responsibilities for the shared access areas – as show in appendix 5 – will be controlled using a site handover sheet signed by the CSJV supervisor, BFK supervisor and Crossrail.

The maximum number of vehicle between CSJV & C300 will not to exceed 70 vehicles over a 24 hour

If the numbers exceed this number CSJV & C300 will call a logistics meeting

3 Staffing Plan

3.1 Roles & responsibilities

The Project Director is ultimately responsible for all vehicle & pedestrian issues. The following personnel have been identified as having specific responsibilities with regards to this procedure.

Role	Initialism	Responsibility
Logistics Manager David Richmond	LM	Appointed person responsible for monitoring compliance with this procedure specifically the overall networks management. Also responsible for monitoring compliance to vehicle and driver safety and security.
Commercial Manager Stephen Addison	CM	Ensure that the procurement of Subcontractors and suppliers incorporates logistics requirements and states any constraints relating to logistics
Waste Manager Geraint Rowland	WM	Responsible for monitoring compliance with the waste management requirements of this procedure. Also to manage the information of muck away into the smart waste system
Section Manager Craig Sewell	SM	Person responsible for the construction activity in a particular section of the works.
VMPS Administrator Bernie Burzack	VA	Manage logistics monitoring included in the Works Information or as required by consents, including analysis and interpretation of monitoring results and actions
Health & Safety Advisor Mark Farrell	HS	Develop and provide logistics training for all personnel to include induction, tool box talks and specific training for personnel with logistics responsibilities
Senior Traffic Manager Graeme Oddy	TM	Responsible for providing planning and consents for all Traffic Management issues.

3.2 Logistics management Procedure

	Description	Responsibility for Action						
		LM	VA	SM	HS	CM	EM	TM
3.1.1	act as the principal logistics point of contact for the *Project Manager*	✓						
3.1.2	develop and provide logistics training for all personnel to include induction, tool box talks and specific training for personnel with logistics responsibilities	✓			✓			
3.1.3	manage all logistics personnel	✓						
3.1.4	co-ordinate between logistics personnel and the construction teams to include BFK C300		✓					
3.1.5	organise weekly meetings with the *Project Manager* and record actions	✓						
3.1.6	approve the logistics elements of the *Contractor*'s method statements to include BFK C300	✓						
3.1.7	co-ordinate with Others (including other Crossrail contractors) regarding cumulative impacts on or outside of the Site	✓						
3.1.8	ensure compliance with logistics legal and contractual requirements					✓		
3.1.9	work with the *Contractor*'s Environmental Manager to ensure the Site Waste Management Plan is followed and maintained (see Part 21 Environmental Management of Volume 2B of the Works Information)	✓						
3.1.10	work with the *Contractor*'s Consents Co-ordinator on the consents programme and prepare consent applications (see Part 3 Planning, Environmental and Traffic Consents of Volume 2B of the Works Information)	✓						✓
3.1.11	provide advice and instruction to construction teams to deal rapidly and effectively with logistics related incidents and complaints	✓	✓					
3.1.12	ensure that the procurement of Subcontractors and suppliers incorporates logistics requirements and states any constraints relating to logistics					✓		
3.1.13	analyse individual logistics related incidents and complaints to identify root causes, corrective and preventative actions needed, trends and strategic actions	✓	✓					✓

	Description	Responsibility for Action						
		LM	VA	SM	HS	CM	EM	TM
3.1.14	manage logistics monitoring included in the Works Information or as required by consents, including analysis and interpretation of monitoring results and actions							
3.1.15	undertake checks of the *Contractor*, Subcontractors and suppliers against legal and contractual requirements	✓	✓				✓	
3.1.16	produce report information for the logistics part of the progress report and attend the progress meeting to ensure that the Logistics Plan remains suitable, adequate and effective	✓	✓					
3.1.17	be the point of contact between the *Contractor* and the Traffic Coordination Centre	✓	✓					
3.1.18	collate all Equipment, Plant and Materials and people vehicle movement requirements and develop plans as required in the Works Information	✓	✓					
3.1.19	attend Traffic Liaison Group meetings	✓						✓
3.1.20	liaise with Others, including other Crossrail contractors and local authorities, to co-ordinate Equipment, Plant and Materials and people vehicle movement requirements	✓						✓

4 Communication Plan

The successful implementation of the logistics plan depends upon there being adequate coordination, communication and liaison between CSJV C412, C411, BFK C300, C410,C807 DTS, LUL and other Projects within the vicinity of CSJV Sites.

4.1 Principal Contractors Internal Management Team

The Costain-Skanska management team will review Logistics management issues as part of their regular progress/planning meetings to discuss compliance with the Logistics Plan and to co-ordinate forthcoming activities. Managers attending these meetings will ensure that their subordinates are aware of the matters relating to Logistics management and that are discussed to ensure that adequate coordination takes place.

4.2 Between the Principal Contractor and the Employer

Crossrail (or his representative) will be invited to review the implementation of the Logistics Plan as an agenda item at their progress meetings are held monthly. Minutes will be prepared and distributed within an agreed timeframe. Copies of all Costain-Skanska reports are to be appended to the minutes of the progress meeting.

4.3 Between Costain-Skanska and Contractors

Day to day coordination and communication of contractors will be carried out by the relevant CSJV C412 & BFK C300/C410, C807 DTS and their Section Managers/ Engineers, and Foremen.

The relevant Section Manager / Site Supervisors will carry out daily co-ordination and communication between CSJV C412 and contractors through the start of shift briefing process, which will be recorded on the Start of Shift Briefing sheet. A record of theses briefings shall be kept by the Costain-Skanska Team and held at the site office.

Costain-Skanska will hold weekly planning/progress meetings with each Contractor to discuss matters related to the assessment planned vehicle movements, as will the interface with other Contractors' activities. Items to be considered are included within the standard agenda as follows:

- Actions from previous meeting
- Standards of Compliance to Logistics Procedures & Guidance
- Dates of forthcoming Vehicle inspections and
- Findings of previous Inspections etc
- Waste Management Compliance
- Date and time of next meeting

4.4 Liaison with the local community

A Community Liaison Plan has been produced and will be issued to the Local Authorities 4 weeks in advance of starting works on site and is updated as and when required.

Any community meetings or similar will be in a format as agreed with the Crossrail and the Costain-Skanska Community Relations Representative.

Liaison with the local community will be in accordance with the Costain-Skanska Corporate Responsibility Policy and associated guideline documents.

5 Contractor's Programme

All the delivery drivers must attend the Site Induction training. Logistics Manager will maintain a detail register of all the drivers and all the frequent drivers will be enrolled with Crossrail's training provider for 1 day class room based Lorry Induction driver course. Anticipated number of drivers attending the training course will be notified in the monthly logistics report with number of drivers attending at least 6 month, 1 and 2 weeks ahead. Any cancellation will be notified 48 hours prior to the training course. The register will be updated with the list of drivers with the Photo ID (Unique ID Number) indicating the training course has been completed.

CSJV C412 has put together a detail pro-forma (Appendix - 2) for all site inspections related to logistics management including vehicle & driver safety and vehicle security. CSJV C412 will conduct at least 2 site inspections per week specific to logistics of lorry movements related to construction works. This will entail routine visual check along the specified lorry routes to ensure that vehicles are maintaining to these routes. CSJV C412 site managers will use the attached pro-forma for the random inspections of the construction vehicles and their overall compliance to lorry route compliance as per Logistics management requirements.

6 Freight Operation Selection Criteria

CSJV will make the mandatory requirement for Freight Operators/haulage firms including those engaged by the subcontractors to be selected in accordance with the following selection criteria:

- CSJV C412 will ensure that they will comply with FORS membership requirements i.e. they shall be a registered member of the Freight Operator Recognition Scheme(FORS) and attain bronze standard minimum within 3 months from the starting date. The freight operator not on FORS membership must be reported to Logistics Manager prior to their appointment.

- Ensure they will comply with the Vehicle Security procedures i.e. a detail work method statement demonstrating the security of load being transported, vehicles and drivers must be submitted prior to commencement of the works.

- Ensure they will comply with Lorry Driver Induction Training requirements as detailed in the section 12 of this plan;

- Ensure they comply with vehicle safety equipment standards;

- Check company or owner driver references;

- Ensure operating licenses are provided and submitted to the Logistics Manager

- Declare any Environment Agency convictions or formal cautions against the companies, their Directors or, if applicable, an owner driver, in the last 5 years; and declare any enforcement actions such as an enforcement notice, a suspension notice, a landfill closure notice, or regulation 60 against the companies, their Directors or, if applicable, an owner driver, in the last 5 years.

- Ensure drivers submit driving licenses; driving licenses will be checked upon arrival to the LHA to ensure the vehicle being driven corresponds to the relevant license category. The table below summarizes the licenses categories associated with site traffic. There is a BFK marshal at the Park Lane Lorry Holding Area (LHA), as well as CSJV C412 marshals who will check their own vehicles for compliance prior to them arriving on site.

Category	Description
C1	Vehicles weighing between 3,500 kg and 7,500 kg, with or without a trailer - weighing no more than 750 kg
C1+E	As category C1 but with a trailer weighing more than 750 kg. The total weight of the vehicle and the trailer together can't weigh more than 12,000 kg. The weight of the trailer, when fully loaded, can't weigh more than the unladen weight of the vehicle
C	Vehicles over 3,500 kg, with a trailer up to 750 kg
C+E	As category C but with a trailer over 750 kg

Before appointing any Freight operator, the person making the appointment must be satisfied that those being appointed are competent and have allocated sufficient resources to fulfill their obligations under Logistics Management requirements. Where Costain-Skanska makes the appointment, the procedures within the Work Package Logistics Plan will apply. Preferred Contractors will be notified to Logistics Manager.

No Freight Operator shall sub-let any part of their awarded package without express permission from Costain-Skanska management. Should permission be granted, Costain-Skanska management will ensure that the Contractors selection process is at least equal to that of Costain-Skanska. To that end Costain-Skanska reserves the right to check procedures put in place by any party to the construction phase to ensure that these requirements are met.

Approved Freight Operators will be provided with a copy of the Logistics Management – Works Information plan (or the relevant parts) at the earliest opportunity and this will be discussed at various pre-appointment meetings and throughout their involvement in the contract. In addition the appropriate elements with regards to health and safety and environmental management will be communicated within the Inductions.

The sub-contractor will appoint senior member(s) as their principal point of contact for all matters relating to Logistics issues. The roles will be recorded in the sub contract minutes of meeting, during the sub contract appointment and held by the Site Manager/Quantity Surveyor.

Weekly random checks on the freight operators will also cover Vehicle safety equipment standards and
driver license checks.

A periodic review of the Freight operators performance on this project will be assessed against the KPI's such number of non-compliances raised during site inspections, number of complaints received from the stakeholders and any system issues identified in the compliances reports. The services of Freight operators with poor records will be terminated.

7 Excavated Material Plan & DTS

CSJV C412 will make necessary provision in the subcontract of the works to transport the excavated material to the C807 Docklands Transfer Site (DTS). Material is to be taken to the Docklands Transfer Site which is located at River Road Barking, where it will be tested to ensure it is not contaminated. Testing will take place prior to material being taken to the transfer area and whenever there is a significant change in the material being generated. CSJV C412 will also allow for disposal of all the other contaminated excavated material to registered sites.

CSJV C412 will receive a hand held DTS POD which tracks vehicles form the site to the DTS. The POD will be operated by a vehicle marshal or nominated person. This allows the vehicle to be tracked from our site to the DTS where it will be checked in by a similar machine. All of our deliveries can then be loaded onto a electronic spreadsheet and sent our team on a weekly basis.
The haulier will be issued with a waste transfer note after they have been loaded.

CSJV will also ensure that all vehicles are weighed before they depart from the site and ensure that they do not exceed the 32.000KGs, which is the maximum legal weight limit.

We will send our predicted amounts of material at least two weeks in advance to the facility Manager at C807 DTS and more detailed plans a week before the deliveries. If there are any issues that result in cancellations or an increase in vehicle numbers then CSJV C412 VMPS administrator can make changes within a 24 hour period and for very short notice a phone call will be sufficient. This will obviously not be a regular arrangement, therefore regular liaison between the site engineers, general foreman and the C807 DTS facility Manager coupled with up to date planning should prevent this.

Random checks will be carried out at the DTS to ensure that the material is not contaminated so CSJV C412 will ensure that our excavated material is closely monitored and if there are any changes to the condition of the material it should be reported to our environmental manager immediately.

The DTS contact details and opening times are:
Liam D'Souza
Site Contact Number: 020 8594 5786
Site Address: Docklands Transfer Site
River Road
Barking
Essex
IG11 0DS

- Monday to Friday 0600hrs – 0200hrs
- Saturday 0600hrs – 1900hrs
- In the event that CSJV C412 plan or are instructed by the client to muck away outside these times then we will seek permission to use Fairlop, Watson Close or Ingerbourne. It these locations cannot be used then CSJV C412 will not muck away outside of the DTS timings.

Craig Turrell
Ingerbourne Valley
Telephone: 01279 422436
Ingrebourne Valley Limited
Cecil House
Harlow Common
Harlow Essex
CM17 9HY

Monday to Friday 0830hrs – 1700hrs

7.1 Waste Carriers

Prior to using any Waste Carrier to remove waste from site, the Waste Manager must:

- Obtain and check their Waste Carriers Certificate.
- Obtain the details and a copy of the permits of the Waste Management Facilities being used by the Waste Carriers.
- Check with the Environment Agency that the Waste Carriers certificates are valid. A record of this conversation should be maintained on the site records or with/on the copy of the relevant certificate. Add the carrier to the Site List of Approved Waste Carriers within the Site Waste Management Plan.
- Check what types of material the Waste Management Facility can accept with the Environment Agency to be sure that the waste being sent is allowed. Add the permit details and Environment Agency verification checks of all waste carriers, waste transfer stations and disposal sites to the Materials Handling and Sampling Strategy

At the start of new contracts, specific waste contract conditions should be included within the Subcontract orders to ensure compliance with the Waste and Material Procedure and Guidance.

7.2 Movements & tracking the Excavated Material (Waste)

Once the Waste Information Form (WIF) is code 1 and signed, all movements of waste will be tracked by the use of a DTS Pod, which will enable CSJV and the client to track all vehicles that leave our site. The waste transfer note will be printed out after the vehicle has been weighed by the self-weigh loaders reviewed prior to the vehicles departure. The CSJV traffic marshals to only sign a WTN with an approved facility detailed on the waste transfer note.

Waste invoices and the DTS print out that provides both CSJV C412 and the client accurate information for excavated material quantities and numbers of vehicles that have delivered to the DTS.

As a producer of waste and in some situations the carrier of waste, CSJV C412 have a Duty of Care to meet these requirements and to ensure that waste is dealt with correctly. To that end it is recommended that from time to time loads leaving site are followed and records of following the skip or wagons are maintained.
The excavated materials must include the full traceability of:

- load identification number;
- subcontractor;

- Date;
- Volume; and
- Weight

All vehicles are fitted with weigh loaders that have been calibrated and tested. It is important for the vehicle to rest once the muck has been placed and spread evenly to gain an accurate reading. If the vehicle if found to be overweight the driver will inform the banks man excess material will be removed.

A detailed process for the environmental management of the issues has been incorporated and is specified in Materials Handling and Sampling Strategy.
Please refer to TB084 to explain the process of completing and reconciling Waste Transfer notes.

7.3 Temporary Assets

- Temporary assets will be identified throughout the Project life cycle and ensure that a method of demonstration that purchase of Equipment represents the most economic procurement method and the Project Manager's acceptance of the proposal;
- The marking of temporary assets with a unique reference number and as the property of the Employer in a manner acceptable to the Project Manager; Maintenance of a temporary asset register that identifies each asset purchased, its unique identification number, the purchase date, the purchase price and forecast residual value, the location of the asset and the person responsible for its safe keeping, any maintenance requirements including the interval of such maintenance, the anticipated date of release for sale and the cost credited to Defined Cost as a result of the sale;
- A process for regularly recording the condition of the temporary asset and updating the register; and records of the Project Manager's acceptance that the temporary asset is no longer required for the works and the Contractor's process for managing the disposal of temporary assets.

8 Sustainable Transport Plan

The Geographical location of the Bond street worksite does not provide any opportunities for alternate freight options such as rail or water.

CSJV C412 has a sustainable transport plan (C412-SKC-T1-XCS-C125-50012)
based on following principles.

- Minimizing impacts from accidents, spillages or wastes
- Ensuring freight is run efficiently, reduces unnecessary journeys, minimizes journey time distances and maximizes loads with effective planning
- Complies with labour, transport and human rights standards and regulations
- Ensuring that employees and communities affected by freight can function in a healthy and safe environment
- Minimizes the negative impacts of freight activities on local communities'

The overall construction sequencing of the project will actively consider opportunities for the sustainable construction techniques such as reuse of the excavated rubble for the construction of haulage routes or hardstand areas to reduce the use of road networks where it cannot be removed.

CSJV will encourage the freight operators to make the deliveries in the non-peak hours for the muck away or also consider opportunities for material deliveries at the night time where it is non-residential area to minimise environmental impact on road where it cannot be reduced or removed.

Where possible CSJV C412 will endeavor to source goods locally for any deliveries that may be required.

A monthly progress report on the logistics management of the works will notify the current initiatives on the project under any other business.

8.2 DTS Reporting & Testing

The DTS produces weekly KPI's on the following:

1. Number of vehicles planned to actual
2. Quantity of Muck
3. Weights of vehicles laden and unladen
4. Haulage company names and registrations of vehicles
5. Times and dates for arrivals and departures

9 Modularization and Off Site Manufacture and Assembly Plan

CSJV's current scope of works involves bulk excavation works and construction of heavy structural works including, temporary works for the construction of different levels for the Bond street works.

The following are the major items of the works considered for the Modularization and off site manufacture

- There will be some deliveries of large columns that will need to be assembled as per the bar bending schedule off site therefore may be delivered to site pre-assembled and pre-slung.
- Temporary and Permanent Plunge columns – The supplier will manufacture equipment off site.

The issues considered for selecting the parts to be manufactured offsite are the overall journey mileage, the average reduction in number of vehicle trips and overall reduction in CO2 emissions. CSJV C412 is currently finalising the major suppliers for the works and the plan will be updated once the details are available.

All the components manufactured off site will be transported to the site via road transport due to the constraints on other options such as rail and water. All the deliveries to the site will be booked 21 days in advance and the status will be updated 7 days and 1 day prior. Any abnormal load must be flagged 21 days prior to ensure all the consents are in place prior to the delivery of the works on the site.

The Site managers will be asked to nominate the storage area for the off-site manufacture deliveries at least 2 days prior to the arrival of the material. The storage and assembly area must be close to the actual erection location to minimise the internal movements on the haulage route.

All the works are carried out in accordance with specification in the Works information volumes and will be inspected periodically under CSJV' Quality Control Plan. Please refer to the CSJV's Quality Control Plan for subcontractor for further details.

All off-site manufacture plants used on the project will be inspected prior to use to ensure they are operating in accordance with their permits.

Monitoring of Lorry routes will be undertaken by the Logistics Manager to ensure all the suppliers' are using the agreed routes.

All the offsite manufacture facilities will be inspected on a monthly basis and any errors brought to the attention of the contractor, who will be required to take actions to improve the quality.

Access to the Master Plan Shaft

CSJV are aware that AD2-(Access to the ETH-MPS) will change logistical arrangements.

Access will be via Tenterden Street through Medici Passage

10 Consolidation Plan

CSJV's C412 current scope of works involves bulk excavation works and construction of heavy structural works including, temporary works for the construction of different levels for the Bond street works. We have identified a Consolidation Centre in Chats Road Dagenham that we plan to use in the future.

The following are the major items of the works considered for the consolidation

Materials:

- Glass panels
- Excavated material
- Block work
- Escalators
- Bronze finishing and fittings
- Excavated material Steel trunking
- Glass reinforced concrete
- Glass reinforced panels
- Precast units that vary in size
- Crushed rock
- Construction ancillaries – Timber, pipes, PPE, couplers etc.
- Fuel

Equipment and Plants:

- 35t excavator (e.g. for the clamshell)
- The dig below the slab will use 7t excavators (e.g. Takeuchi TB 175) at the face assisted by a tracked loader (e.g. Cat 953).
- They will be supported by a 13t (e.g. JS115) excavator to dig to formation
- Breaker
- 2t excavators or using hydro demolition
- This will allow access from the main excavation to the protected deck for a Brokk 400 concrete breaker and Bobcat.
- The loader will heap the spoil under the opening to allow the 40t excavator to reach in normal dipper arm
- 70t Crawler cranes
- Dumper truck
- Concrete Pump

The issues considered for selecting the parts to be consolidated are the detail plant and Equipment and Plants and materials delivery requirements over time, journey times from consolidation centres etc. CSJV

is currently finalising the major suppliers for the works and the plan will be updated once the details are available.

The possible consolidation options considered at this stage are use of the same tipper for supply of crushed rock and muck away , bulk supply of construction ancillaries, collective bookings of the plant for eastern and western ticket hall i.e. Concrete Pump , Dumper truck etc.

CSJV consider consolidation centres away from the Eastern & Western Ticket Halls such as Park Lane Compound. CSJV will establish a monthly coordination group with the major suppliers and subcontractors to actively look into the options for consolidation in following areas:

- Assess likely delivery frequency and vehicle loads to identify which suppliers will need to use consolidation centres
- Explore opportunities for reduction in overall costs where the benefit of delivering full loads exceeds costs of holding stock
- Assess the reduction in vehicle movements and also the general construction waste

All the deliveries to the site will be booked 28 days in advance and the status will be updated 7 days and 1 day prior. Any abnormal load must be flagged 21 days prior to ensure all the consents are in place prior to the delivery of the works on the site.

Some deliveries will be abnormal loads that are too wide or long to transit along the highways and roads at peak or busy periods. In these circumstances the haulier is responsible to apply for an abnormal load permit. This is signed off by the police forces and local councils but has restrictions between times and sometimes specifies routes that have to be taken.
Once all of this information has been obtained it is submitted into the VMPS and the CSJV C412 will ensure that the haulier surveys the route and carries out a swept path analysis, if there are any concerns.

All the works are carried out in accordance with specification in the Works information volumes and will be inspected periodically under CSJV C412's Quality Control Plan. Please refer to the CSJV's Quality Control Plan for subcontractor for further details.

All off-site manufacture plants used on the project will be audited prior to use to ensure they are operating in accordance with their permits.

Monitoring of Lorry routes will be undertaken by the Logistics Manager to ensure all the suppliers' are using the agreed routes.

All the off –site manufacture facilities will be inspected on a monthly basis and any errors brought to the attention of the contractor, who will be required to take actions to improve the quality.

11 Night Time Working

If CSJV C412 or BFK decide to carry out night works Section 61 will have to be applied for and acceptance will be provided for by Westminster council. If this is agreed we will ensure that the traffic marshals are fully briefed before works commence at night. The following points must be considered when working at night:

- To be aware that will be work at night on the sites that evening, which will include deliveries that go via Park Lane lorry holding area.
- The Sites will have sufficient lighting for all areas and show them the specific areas.
- Extra vigilance will be required by traffic marshals, especially when vehicles entering and egressing the site locations.
- Close co-ordination is necessary to ensure that the deliveries and collections are appropriately controlled at these times.

12 Lorry Driver Induction Training Plan

CSJV has made one of the key selection criteria for the Freight Operator selection process is to ensure that all the frequent drivers must have attended Lorry driver induction training and infrequent drivers have been given copies of Driver information pack.

CSJV C412 actual construction activities started June 2013. The main focus of activities for the first quarter of the construction program was Concrete works, excavated material, reinforcement and pile arising. CSJV has a significant number of drivers trained and we are constantly booking a number of drivers on courses as and when required. If there are any cancellation will be notified 48 hours prior to the training course. The register will be updated with the list of drivers with the Photo ID (Unique ID Number) indicating the training course has been completed. Costain-Skanska site management will deliver and keep a register of all inductions, a pro - forma is contained in Appendix 3.

The Logistics Manager will ensure that the register is updated regularly through periodic review. Induction forms contain personal information and will be kept in a secure location at all times.

13 Vehicle Control Plan

CSJV's nominated access/egress points for the C412 will be included as a part of Site Induction process for the delivery drivers. Each driver will be given a copy of their designated route map which will show routes from the Lorry Holding Area (LHA) which is currently situated at Park Lane and the use of the site compound on Park Lane central reservation. It is at this location where all vehicles can be checked and sent to the sites under a controlled under the direction of this site foreman for both CSJV sites and BFK C300. The marshals will have communication in the form of a radio that will enable all movements to be managed efficiently. The movements on each route will be planned using VMPS and close liaison between CSJV and CRL Traffic Control Centre (TCC) will be key to ensuring that bookings are monitored and controlled not only for C412 but all CRL vehicle movements.

Records of the actual lorry movements will be compared to planned lorry movements using the Vehicles Management Planning System (VMPS). The VMPS administrator will then produce the comparisons of this and present as a KPI. The results will be monitored and action taken should compliance fall below standards.

CSJV has a robust system in place to ensure that all vehicles that deliver to our sites are compliant with

CRL vehicle requirements and routes. Please find attached documents at Appendix 2.

CSJV will submit 3 types of plan to the Traffic Coordination Centre (VMPS) as per the requirements of Logistics Managements for the works. CSJV to complete: Long Range, 7-day, and Daily. This plan sets out a number of steps the CSJV will Endeavour to take to ensure the correct level of plan is submitted at the correct time. Close liaison with BFK C300 is also required and adequate measures have been described in section 2 of this document. 2These steps are bullet pointed below;

- Every Monday the CSJV will enter a Long Range Plan. This will be submitted with best available information.
- Every Monday the CSJV will also enter a Weekly Plan for the following week. This requires more detailed information (see section on Weekly Plans) or if this information is already in the system this plan Can be altered at short notice.
- Each working day, the CSJV will submit the Daily plan for the following day. This should be done Daily before 0900hrs.

Where Daily Plans are required for days which follow non-working days, arrangements will be made tsubmit the Daily Plan on the last available working day prior to this. For example plans for Sunday and Monday can both be submitted on a Friday

CSJV's delivery team will plan the anticipated lorry movements as a part of their weekly Look Ahead program. The estimated lorry numbers will be based on detail Concrete Works Program, excavation quantities as well as input from the store managers.

Any significant changes to vehicle numbers will have to be reported to the TCC immediately as will any RIVO's. If a RIVO relates to vehicles being off route, non-compliant or has an incident within CSJV C412's PC area it will then be raised by the Contractor that the vehicles has been booked in for. If it is BFK C300 then it will be raised by them and a joint investigation between CSJV C412 and BFK C300 will be required. The relevant Contractor will then close out the RIVO on completion of the investigation.

14 Vehicle Security Plan

CSJV C412 will ensure that all the contractual arrangements with subcontractors and Freight Operators clearly identify measures to ensure the security of the load being transported, vehicles and drivers.

Vehicles will arrive at the LHA initially where delivery or collection vehicles will be logged. The LHA will be a separated delivery reception area that will provide a secure environment for the load, vehicle and driver and will deter any unauthorised loss or fraudulent activity.

Vehicles on site will be subject to both specific and speculative searches when entering, on or leaving site as per Part 16, section 16.11. Searches may be conducted but only by the Designated Security provider if there is reasonable suspicion or by the direction of the CSJV's Logistics and Security Manager. The search will be undertaken on one of two grounds, either:-

- The search is random and part of company policy; or
- The vehicle is suspected with reasonable cause, to be in unauthorised possession of property.

A record will be maintained of each search carried out and kept on record.

CSJV's Site Marshals will undertake the inspection of all Vehicles in accordance with the sample pro – forma attached in the Appendix – 3.

15 Vehicle and Driver Safety Management Plan

CSJV will ensure that all the contractual arrangements with subcontractors and Freight Operators clearly identify requirements for the Vehicle and Driver safety Management Plan. A copy of relevant section of the Works Information volume for the Logistics Management will be forwarded to the subcontractors and Freight Operators as part of scope of their works. The suppliers plan will be evaluated against a CSJV C412 evaluation sheet which ensures that it contains all necessary information is held and updated by the VMPS administrator. This will be signed by a member of the CSJV team and a member of the supplier. In the event that roads or highways are blocked to unforeseen circumstances, hauliers will be notified and use alternative CRL approved routes. This will be agreed by Westminster Council on the day and CRL Traffic Manager will assist CSJV with this.

Appendix 3 shows the required safety equipment that is necessary for different size vehicles attending site. Vehicles will be checks against this table to ensure compliance with safety equipment must be fitted to the vehicle. Failure to comply will result in the vehicle being refused entry on site and sent away. Please find attached compliance list at appendix 3.

CSJV's C412 Site Marshals will undertake the inspection of all Vehicles prior to them arriving on site. This is generally completed at the Lorry Holding Area situated on Park Lane. When the vehicles arrive they will be booked in with the use of the POD. BFK & CSJV will inspect their own vehicles in accordance with the sample pro – forma attached in the Appendix – 3.

16 Estimated Lorry Numbers

CSJV C412 if required will put together an approximate estimate of number of lorry movements expected for first three months of the construction phase. This schedule will updated as part of a Monthly Logistics report.

17 Review schedule

CSJV C412 will undertake periodic reviews of the plan at every 6 months and revised copy will be send to the Crossrail Logistics team for review.

Appendices

Appendix 1: Logistics management Inspection Reports

Logistics Management pro-forma

Logistics Management Inspection Reports

Guidance on Completing Logistics inspection report

1. The person undertaking the inspection should plan a route around the site that ensures that all areas and activities are inspected. The checklist below is provided to assist the inspection but it should not be considered exhaustive. There may be activities not on the checklist that need to be inspected.
2. During the inspection use the checklist as a prompt or aide memoir and against the relevant subjects ask the following questions:
    - Is the place and/or system of work safe?
    - Is the plant/equipment adequate, suitable, sufficient and in good condition?
    - Has the plant/equipment been tested, examined and/or inspected, maintained, properly marked and certified etc?
    - Are the workforces competent and properly trained, briefed, supervised etc?
    - Are the controls specified in the risk assessment/method statement adequate and being implemented?

1 Fire/Emergencies
- o Site plan
- o Equipment
- o Routes
- o Signs

2 **Logistics routes**
- o Designed routes
- o Storage/stacking
- o Lighting
- o Waste disposal Adequate facilities

3 **Personal Protective Equipment**
- o Provided
- o Adequate
- o Used

4 Plant
- o Adequate capacity
- o Good condition
- o Maintenance programme
- o Fit for purpose
- o Operated safely
- o Operator qualified
- o Guards/Protective devices
- o Statutory Examinations

5 Work over water
- o Access/egress
- o Platforms
- o Rescue equipment

6 **Hazardous Substances/ Vehicle security searches**
- o Hazard data sheets
- o Assessments

7 First Aid
- o Emergency services
- o Trained personnel
- o Emergency services

8 Traffic Management
- o Plan
- o Vehicle/pedestrians separated
- o Signs/barriers
- o Vehicle marshal
- o Alarms (White noise)

9 Noise/Vibration
- o Surveys
- o System of work
- o PPE
- o Work rotation
- o Signs

10 Welfare
- o Adequate facilities
- o Cleaned

11 Training
- o frequent/ non frequent driver
- o FORS compliance
- o Cross rail Induction attendance

Appendix 2: CSJV Delivery Route Induction

CSJV C412 Delivery Route Induction Form

Company	Date	Name	Site EasternTicket Hall	Route understood	Signature

This register states that the driver understands the route prior to his arrival.

Appendix 3: Vehicle Safety Inspection Sheet

Vehicle Safety Equipment Check Sheet

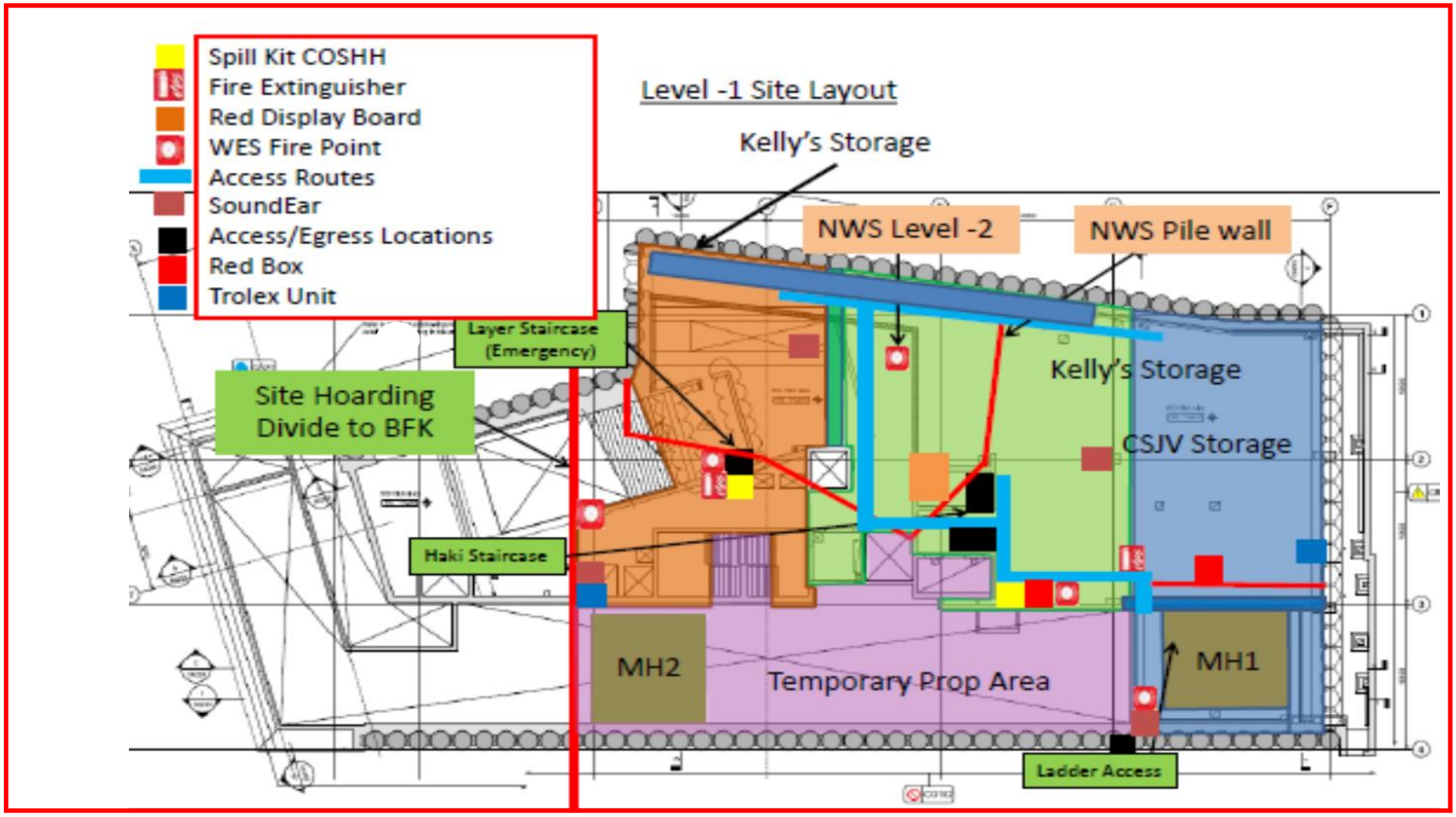
INSPECTION DETAIL				VEHICLE SAFETY EQUIPMENT	YES	NO
Date & time of check				ABS / Brakes		
SLM				Daytime running lights		
Contract number				Fire extinguishers		
Site				Flashing beacons		
Company				Fog lights		
Vehicle Registration No.				Light & high visibility colours		
Vehicle type				Head, stop, turn, tail, & hazard warning lights		
Driver's name				No additional window tinting		
Driver's signature				Rear view mirrors		
Driver's LDIT number				Reflective warning triangle		
Lorry route observed				Reversing sensors / cameras / alarms		
Crossrail ID displayed	Y	N		Side scan detection & warning systems		
FORS	Y	N		Seat belt; Inspection; & Drug and Alcohol warning decal		
Additional comments:				Seat belts		
				Signage: max. number of passengers (minibus etc. only)		
				Spare light bulb kit		
				Blind spot mirrors (Class IV, V, VI)		
				Fresnel lens		
				Rear warning signs for cyclists		
				Side under run guards		

Appendix 4: Safety Equipment

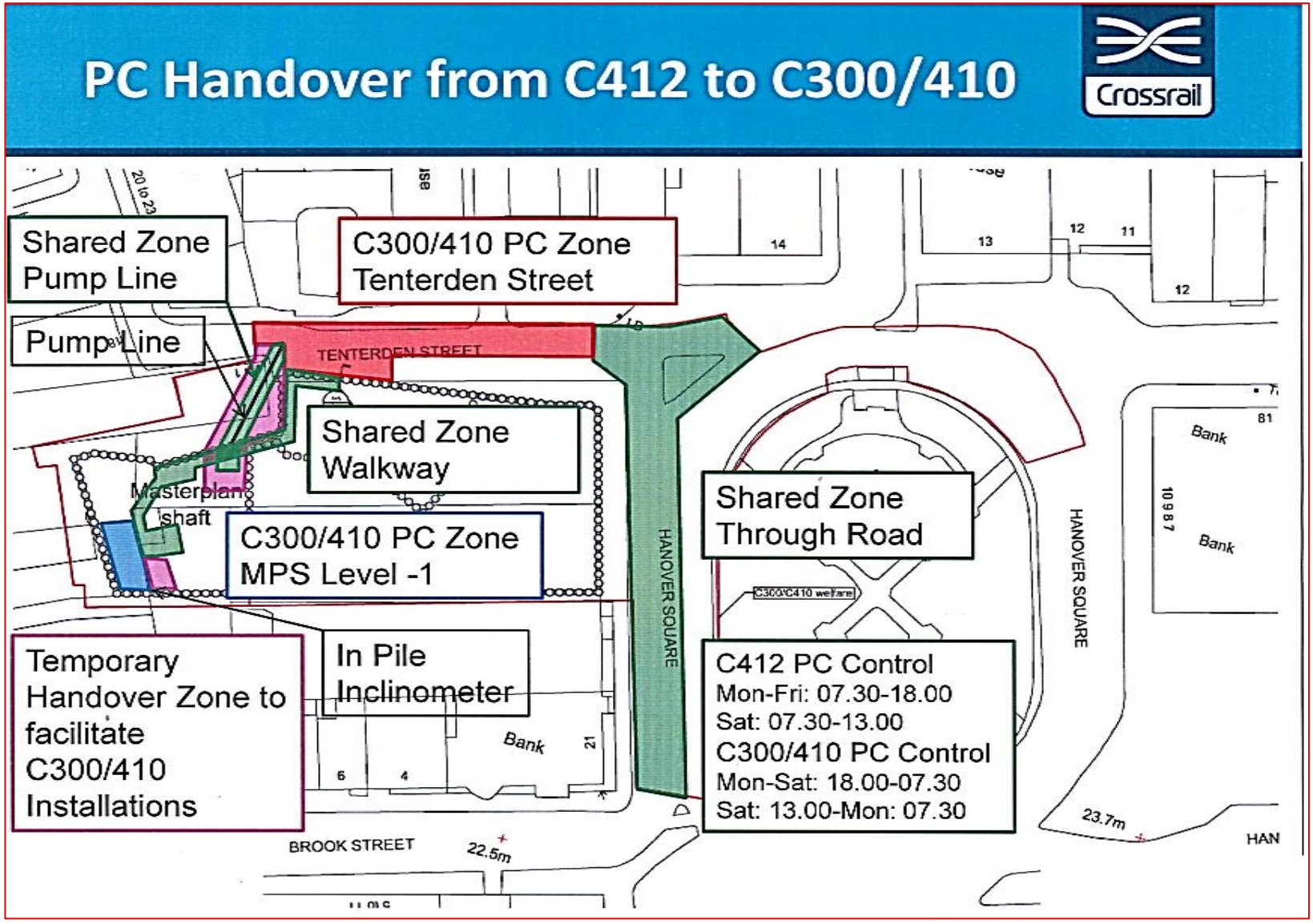
The below table shows the required safety equipment that is necessary for different size vehicles attending site. Vehicles will be audited against this table to ensure compliance with safety equipment fitted to the vehicle.

Equipment / Vehicles	Blind Spot Mirrors Class IV, V and VI	Fresnel Lenses	Rear/Side Warning Signs	Side Under-run Guards	Side scan detection and warning systems
Vans < 3.5 T			☑		
Small lorries 3.5 to 7.5 T	☑	☑	☑	☑	☑
Medium to Large Lorries >7.5 T	☑	☑	☑	☑	☑
Concrete mixer (6 m^2)	☑	☑	☑	☑	☑
2/3 Axle rigid	☑	☑	☑	☑	☑
Grab Lorry	☑	☑	☑	See 26.14.10	☑
4 or multi Axle tippers	☑	☑	☑	See 26.14.10	☑
Articulated low loader	☑	☑	☑	☑	☑

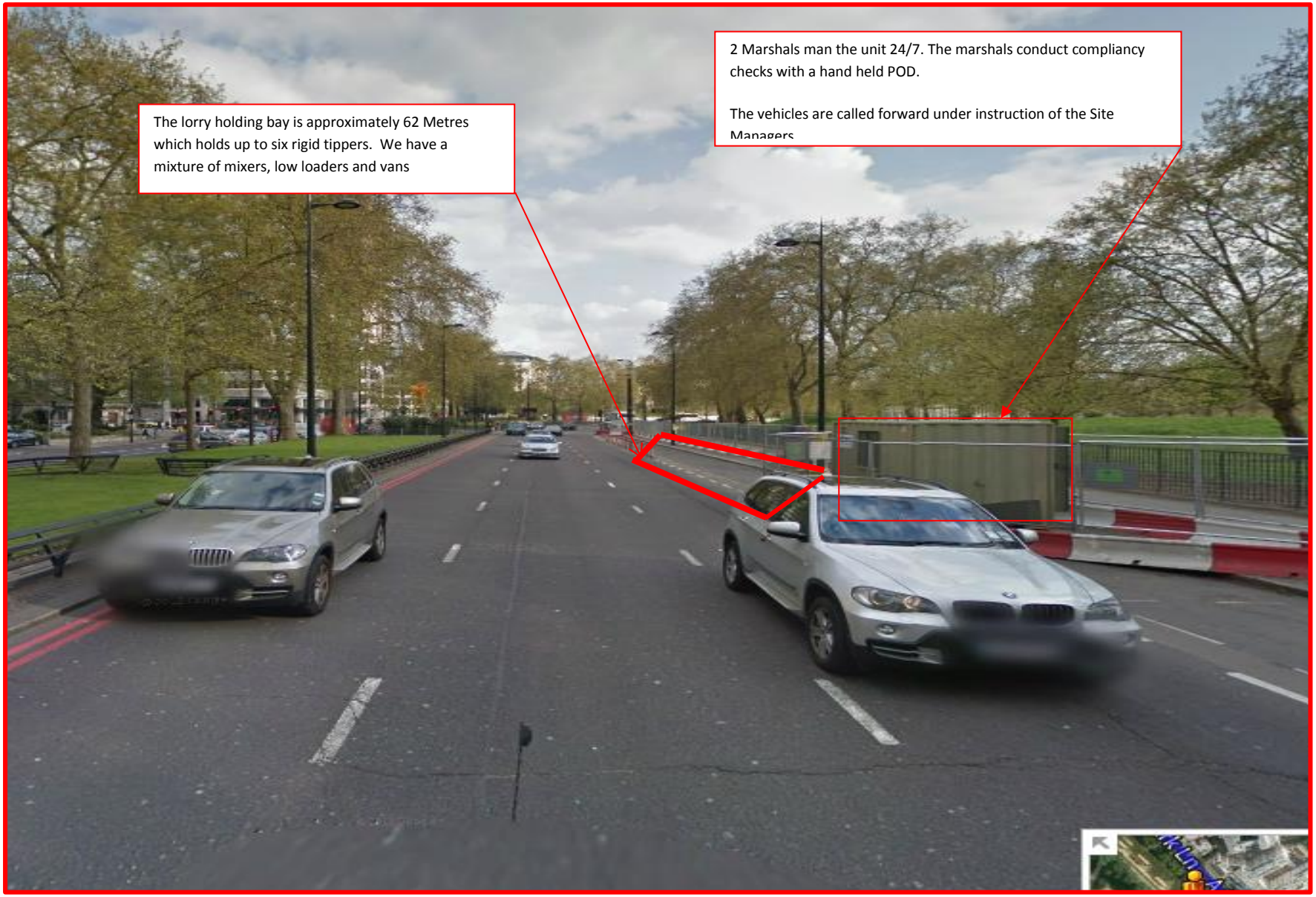
Appendix 5: ETH



APPENDIX 5 Site ETH -*(To be4 read in conjunction with PMI 365 & 395)*



APPENDIX 6 LHA



Appendix 7: Driver Induction

Vehicle Identification

All vehicles arriving to site must display the details of the Crossrail Contract No. as per the standard template provided with this pack.

Crossrail

C412 BOND STREET

Operational Protocols

Site opening hours:

Monday - Friday: TBC
Saturday: TBC

NO ACCESS PERMITTED BEFORE AND AFTER THESE TIMES

No reversing on site without a Vehicle Marshall
No Children/pets on site
Access and egress – please follow
The instructions given by Gate Security

Designated Routes for Access/Egress

An A4 copy will be provided to all drivers

Vehicle Safety

- Safety equipment must be fitted to vehicles as per Crossrail requirements.
- Extra care and attention must be taken when pedestrians or cyclists are present.
- Be aware at junctions and when turning that pedestrians and cyclists may enter blind spots
- Warning systems will aid everyone within the vicinity when manoeuvring/turning – make sure yours are working before each journey.

COSTAIN SKANSKA

Delivery Driver Induction

Crossrail Bond Street Station Advanced Works
Contract C412

Please complete below and retain this leaflet for your information

Drivers Name

Driver's Company

Issued By

Date

Driver's Signature

You are required to

- Fully comply with road traffic legislation
- Produce a valid driver's licence on arrival
- Display your Crossrail Badge No. demonstrating that Lorry Driver Induction Training has been completed.
- If you haven't yet completed Lorry Driver Induction Training and you are required to deliver to any Crossrail site more than 5 times a year, please ask your Employer to book the Crossrail Driver Induction Training. Training is mandatory and you will not be allowed on site without it after your fifth trip to a Crossrail site.

Zero Tolerance to

- Taking a mobile phone call on site
- Misuse or abuse of equipment provided for Health & Safety
- Drugs & Alcohol
- Exceeding site speed limits, not adhering to site signage and/or not following instryction from authorise persons (Traffic Marshalls, Gate Security, Plant Attendant).

Nearest Hospital

University Collge Hospital (24 hrs A&E)
235, Euston Road
London, W2 1NY
Tel: 0845 155 5000

Emergency Contacts

Rehene Duty Numbers: **020 7511 9870** and **07581 638 346**

Logistics Manager
Dave Richmond 07827 893 815

Crossrail Helpdesk
0345 602 3813

Crossrail Incident Response Desk
0203 197 5000

Personal Protective Equipment

If you need to leave your vehicle cab whilst on a Crossrail site you must wear full PPE at all times

Hard Hat
Orange Hi-Visibility Jacket or Vest
Safety Boots – NO RIGGERS
Gloves
Safety Glasses
Ear Protection – within signed noisy zones.

Site DO's and DONT's

- Adhere to the approved routes provided with the induction pack
- Follow instructions given by authorised persons (Security, Traffic Marshalls, Plant Attendants, Managers)
- Operate your flashing amber beacon
- Do no create excessive noise unnecessarily
- Beware of height restrictions
- Beware of site operations
- All drivers must display sign on window prior to access
- Do not reverse without a Traffic Marshall in attendance
- Give right of way to pedestrians at all times
- Do not exceed the site speed limit
- Do not smoke unless in a designated area
- Eat and drink only in the Canteen
- Do not driver or enter site under the influence of alcohol or drugs (you may be tested)

Collections from site

You may not remove items from site without signed authority to remove

Appendix 8: evaluation sheet

Haulier	FORS Registration/ Membership Status	Date Registered	Vehicle Type	Driver Name	ROUTE BRIEFED SIGNED + RETUNRED	Driver CRL No	CRL Test Date	VRN	Vehicle Compliant Yes/ No	Seat Belts	Rear View Mirror	Reversing Sensor/Alarm/Camera	Lights (Head & Tail, Stop, Turn Signal & Emergency)	Reflective Warning Triangle	Signage	Seat Belt, Inspection & Drug & Alcohol Warning Decal	Light & High Vis for Vehicles
Adraine	Yes / Silver	30/05/08	Concrete Mixer (8m^2)	Marian		CRD01254	08/07/11	LX08 KOS	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
AGGREKO	Bronze Member	28/09/2010		PAICE	YES	CRD02600		WX59 VJY	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
Ainscough	Bronze Member	02/02/09	MOBILE Crane	Stowers	yes	CRD	TBC	LK58 KCN	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
AMFAUD																	
ANCHOR BAY	Bronze Member	10/02/2012	RIGID	TAYLOR	YES	CRD03297	25/06/2012	MX07 CVY	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
APLANT																	
Axle Haulage	Bronze accreditation	10/09/10	Artic	Horton	yes	CRD3164	11/06/2012	km61 rze	Yes	yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
ARNOLD LAVER	REGISTERED	19/10/2011	Rigid	Nowacki		CRD00983	17/05/11	EU09 RPG	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Biomarsh	Reassessment to be Booked	03/12/10	Tanker	MacDonald				MV02 YNN	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
BLUEBAY	Reassessment to be Booked	18/01/12	RIGID	Hughes	yes												
BLUEBAY	Reassessment to be Booked	18/01/12	RIGID	FORSYTE	YES	CRD01980	#########	CN57 HLO	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
BLUEBAY	Reassessment to be Booked	18/01/12	RIGID														
BLUEBAY	Reassessment to be Booked	18/01/12	RIGID	Paul	yes	CRD02362	#########	GN57 WXA	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
BLUEBAY	Reassessment to be Booked	18/01/12	RIGID	Cooper	yes	CRD02015	#########	CE10 BDF	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
BOC	Yes / Bronze	29/02/2012	RIGID FLATBED	AMOS	YES	CRD04057	30/11/12	RK61 YUC	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
BR SAUNDERS	Yes / Bronze	01/12/2011	Artic	Cotton		CRD023206	21/02/12	FJ57 NZX	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
BR SAUNDERS	Yes / Bronze		Artic	Barnwell		CRD00304	13/08/10	KR60 AON	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bunzl	Yes / Bronze	19/01/11	Transit Van+D55	Simms	YES	CRD01392		TBC									
Bunzl	Yes / Bronze	20/01/11	Transit Van	bryne	YES	TBC		TBC									
Bunzl	Yes / Bronze	21/01/11	Transit Van	christie	YES	CRD00042		TBC									
Bunzl	Yes / Bronze	22/01/11	Transit Van	Evans	YES	TBC		TBC									
Bunzl	Yes / Bronze	23/01/11	Transit Van	Goodbun	YES	CED00073		TBC									
Bunzl	Yes / Bronze	24/01/11	Transit Van	adamson	YES	CRD01391		TBC									
Bunzl	Yes / Bronze	25/01/11	Transit Van	smith	YES	TBC		L90 AER	YES	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bunzl	Yes / Bronze	26/01/11	Transit Van	tadman		TBC		TBC									
Burdens	registered	23/07/2012	Rigid Hi-AB	Bogle	yes	CRD00189	21/05/10	KT08 YMH	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	Brown		CRD00991	09/05/11	KP11 ENF	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	SHED	YES	CRD01145	TBC	KV11 ZLY	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	16/07/2008															
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	BORG	YES	CRD04329	31/01/2013	KP11 ENC	Yes	Yes	Yes	Yes	YES	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	Lawton	yes												
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	ONEIL	YES	CRD01602	TBC	KU61 DZS	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	YES
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	Brokett	yes	CRD03418	TBC	LK08 CKY	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	Coldspring	yes	CRD01496		KU61 DZR	YES	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	STAWTON	YES	CRD01345	29/07/11	KU61 DZP	Yes	Yes	Yes	Yes	Yes	Yes	N/A	YES	
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	PHILIP	YES	CRD00863	20/04/2011	KU61 DZZ	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Bywaters	Yes/Bronze	15/07/2008	Skip Lorry	BROCKETT	YES	CRD03418	13/07/2012	KP11 ENH	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

Appendix 9: Lorry Routes