

APPENDIX B

TRAFFIC  
MANAGEMENT PLAN  
(TMP)



Erith House  
Queens Street  
Erith, Kent DA8 1RP

**ZAYED CENTRE FOR RESEARCH INTO RARE  
DISEASES IN CHILDREN**

**GOSH**

Great Ormond Street   
Hospital for Children  
NHS Foundation Trust



UCL INSTITUTE OF CHILD HEALTH



**Erith Construction Ltd.**

**TRAFFIC MANAGEMENT PLAN (TMP)**

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## **1 - INTRODUCTION:**

The site works impact on the external areas of the GREAT ORMOND STREET HOSPITAL (GOSH) and especially the surrounding streets of the new Zayed Centre for Research into Rare Diseases in Children (CRRDC).

The site works will potentially impose an increase to the vehicles entering and leaving the environment each day. Therefore it is necessary to introduce controls in order to minimise the impact of the additional traffic, hence the purpose of this Traffic Management Plan.

## **2 - Objectives:**

The aim is to safely plan deliveries, collections and vehicle movement on and around site in order to prevent traffic congestion within the confines of the site, public roadways that access to and from the site address (20 Guilford Street, WC1 1DZ) and nearby residential and commercial properties.

This is achieved by giving a clear understanding of the overall management of the construction site traffic throughout the project duration.

It will endeavour to determine the specific responsibilities of the Erith Project Management Team, in particular the logistics manager and Traffic Marshals.

It describes access/egress arrangements to the Working areas, holding area, loading area, and public access areas around the Site complex for both vehicle and pedestrian traffic.

The plan will be regularly reviewed and amended by the Project Management team in order to incorporate any modifications to the construction site environment affecting vehicle and/or pedestrian traffic.

### **3 - Traffic affected**

The groups of traffic affected are:

- Traffic accessing and working on Site.
- Traffic connected directly with delivery/collection vehicles, Staff vehicles, Emergency vehicles and visitors' transport.
- Vehicles of other Contractors and Suppliers to other projects in the local area.
- Other passing traffic
- Cyclists

### **4 - Persons at risk**

Persons that can be affected or put at risk by the traffic on and off site are:

- Site Staff and all Operatives including Subcontractors
- Visitors to site
- Members of the public
- Persons with disability

### **5 - Site Working Hours and Access Times**

The site working hours will be:

- 8.00am to 6pm on Monday to Friday
  - 8.00am to 1.00pm on Saturdays
  - No working on Sundays or Public Holidays
- Occasionally, non-noisy works and deliveries may occur outside of the main site working hours, subject to prior notice and approval.

Construction vehicle movements are generally acceptable between **9.30 am to 6.00 pm weekdays** and **9.30 am to 1.00 pm on Saturdays** except for the periods of the works associated with basement ground removal and concrete works. The basement ground removal works are planned between the 20th June to 31st October 2016 and in this period vehicle movement to and from the site will commence at 8.00 am. The concrete works are planned between 1st November 2016 to 27th February 2017 and in this period vehicle movement to and from the site will commence at 8.00 am on half of the working days in each week.

There will also be, on occasion, the need to Mobilise or Demobilise Large Vehicles outside these hours due to Third Party Imposed Traffic Orders (Notices will be posted as detailed below). Installation of the Tower Crane will be erected over the course of a single weekend when these site hours will be increased as agreed with the relevant Authorities.

Erith will give written notice of all exceptionally large or exceptionally heavy loads entering the site and will ensure that all vehicles carrying such loads use the agreed routes set out in advance by relevant authorities (TFL, Police etc.) under Traffic Movement orders (TMO's).

### **6 - Signage**

All areas leading to the project will have signage placed appropriately leading to the main / official construction traffic route to site. This will be restricted to the local vicinity of the site, the extent of the signage will be agreed with Camden Council.

## Site traffic logistics and Management of vehicles

### 7 - Road Transport routes and off site holding area:

Site deliveries will be via Guilford Street. A one way system will be in operation. Lorries can only access the Site from the east, via Gray's Inn Road (A5200). All subcontractors and suppliers involved in the project will be briefed on this preferred and designated route and issued with route maps. This route will also form part of the scope of works for our suppliers and subcontractors. (See Fig. 1 – route map)



Fig. 1 - The red cross indicates routes not used by Site traffic

No arrangements will be necessary for delivery vehicles to park temporarily off site as all vehicles will be pre-booked and expected and all checks will be carried out within the site hoarding. This will ensure the site can receive deliveries without causing traffic congestion.

During peak times, on occasion it may be necessary to utilise an off-site vehicle holding area away from the site. Should this facility be required vehicles will be informed in good time and directed to the holding area which will be located near to Regents Park in advance at time of booking or via radio contact. This holding area is currently successfully being used in agreement with Camden and incorporated into the CMP for another working Erith site (79 Camden Road). The Works at 79 Camden Road will complete a few weeks prior to the start of the GOSH basement works and will therefore not create any additional congestion to current levels. (See Fig. 2 - location map)

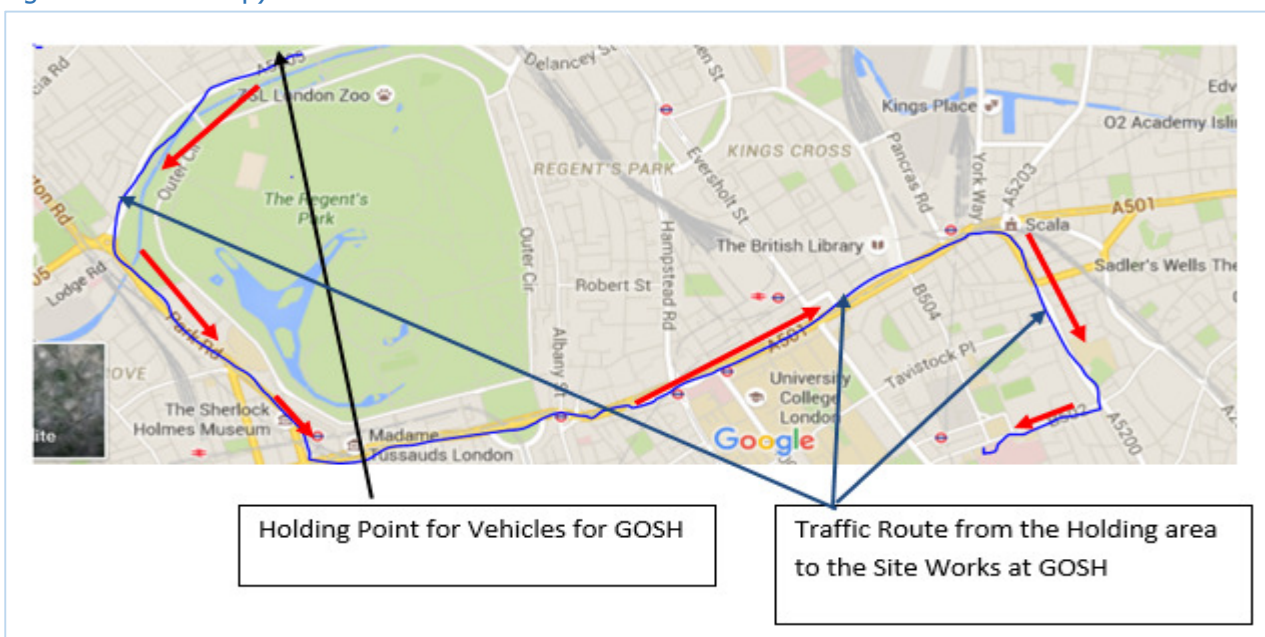


Fig. 2 - Off Site location of holding area and route to site

Vehicles arriving at the site must approach via Guilford St and vehicle, 'check in' will occur at the Holding Area within the site boundary (below the Gantry). At no time will the Holding Area to be used as a place to park unless work being carried out necessitates this. Emergency vehicles will however be given priority. The vehicle loading area will accommodate up to 3 Lorries at a single time.

Delivery and collection vehicles will be booked to on site via the dedicated Logistic Manager at least 24 hours in advance. During the Excavation phase the gateman, when the density of vehicles will be increased, will be notified via radio at least 10 minutes before vehicle arrival, so that Traffic Marshals can be assigned and be able to co-ordinate and manage an organised and controlled access to the Site.

In the same way, Traffic Marshals will be assigned to co-ordinate and manage controlled egress from site heading west, this will minimise traffic interruption using Westbound Guilford Street and ensure safety is paramount throughout the whole manoeuvre for the vehicles and Cyclists. Vehicles exiting the Holding Area and must fully comply with direction given by the Traffic Marshals.

Full information and instruction of the above arrangements will be relayed to all parties via agreed mediums including, but not restricted to, email, initial induction and Toolbox Talks for updates as necessary.

## **8 - On Site management of vehicles:**

Once the vehicles enter the site gate a Banksman will Marshal it to the Holding Area where "Check-in" will take place. Drivers will be given Driver induction sheet on first entry. ([see Appendix 2](#))

Vehicle engines must be switched off whilst on site, no idling will be permitted other than authorised vehicles which require a running engine to facilitate an operation. (e.g. concrete vehicles; which must keep engines running to ensure fluidity of concrete is maintained, diesel delivery vehicles etc).

Only during the excavation phase some vehicles may need to access inside the works area. On these occasions a Traffic Marshal/Banksman will be required to ensure that safety is maintained during vehicle movements.

Reversing operations on site, if necessary, will be controlled using a Banksman or Traffic Marshal. For Safety, Traffic Logistics have been devised to avoid reversing vehicles.

Reversing out of the site will not be permitted.

Drivers must not leave any vehicle unattended without informing (and depositing key with Security). For example when using the onsite welfare facilities.

Smoking will only be permitted in the designated smoking areas. These will always be within the site and out of site from the general public.

## **9 - Site car parking**

There will be no parking on site for staff/operatives due to the lack of space. In order to minimise local parking disruption, congestion and carbon emissions, all staff, operatives, visitors, suppliers and subcontractors will be encouraged to use public transport.

## **10 - Pedestrian access**

The main pedestrian access to site will be via a dedicated entrance in Millman St. There will be another in Guilford Place for emergency use, entrance will be via a key pad system with a Door Bell for Occasional Visitors. No unauthorised access will be permitted. A notice providing access instructions will be posted at the site entrance to site.

Persons not inducted and / or visitors will be directed or accompanied to the induction room or the site office as appropriate.

Pedestrian access and egress through the vehicle access gates will be strictly prohibited and discouraged.

A temporary pedestrian crossing installation on Guilford Street, to the East of the Junction with Millman St has been agreed with Camden Councils' Highways Licencing Dept. in order to divert footfall away from site. It is estimated this will be in place approximately 6 weeks from receipt of the site Application. In order to facilitate the new crossing, parking bays to the South side of Guildford Street will also be suspended.

Within the site compound there will be complete segregation between the site traffic and working areas, with defined access routes and appropriate signage and lighting in place. All routes and segregation on site will be continuously maintained, monitored and reviewed as the works proceed. This will be coordinated by the site management team.

## **11 - Storage areas**

Storage of materials will be in segregated, designated areas only and will not obstruct either vehicle or pedestrian access ways.

## **12 - Material Handling Equipment**

If equipment is used for the distribution of materials only competent persons in possession of a valid relevant CPCS certificate will operate them. Reversing alarms, amber flashing beacons and mirrors will be fitted to all load handling equipment in accordance with PUWER regulations.

A competent slinger/signaller/ Banksman will be used as necessary. Suitable lifting Plans detailing the procedures relating to the any lifting operations will be in place prior to operations in accordance with LOLER regulations.

LOLER and PUWER registers will be maintained on site.

## **13 - Ground load bearing capacities**

Any loading will necessitate specific risk assessment and approval by the Site Engineer. This will be communicated to all subcontractors and will be detailed in the Lift Plans.

## **14 - Cleaning and aesthetics**

The surrounding routes must be kept clean and clear and will be regularly inspected.

A wheel wash and/or Jet wash will be used to clean the wheels of vehicles before they leave site. Drivers will ensure vehicle wheels are clean before they leave site and this will be enforced by Traffic Marshals.

A road sweeping vehicle will be used to clean the surrounding roads when necessary. Traffic Marshals will ensure footpaths are kept free from debris and obstacles and cleaned if necessary.

## **15 - Information, Instruction and Training**



As the Traffic Management Plan affects all personnel on site, it will be included as part of the Safety induction and periodically information regarding any changes will be delivered via toolbox talks or pre start briefings.

All persons who have a responsibility under the Traffic Management Plan e.g. Site managers, Logistics Operative/Team Leaders/Storeman, Traffic Marshal, Banksman, Security Guards or new employees; will have training in order to carry out their duties safely.

All delivery drivers will be issued with Erith's 'Driver induction' sheet by the Security Guards or Traffic Marshals on first arrival onto site. A copy of the induction sheet is included in the Traffic Management Plan document ([see Appendix 2](#)).

All operatives and Staff will be fully inducted at first access to site. All visitors will receive a brief induction by authorised personnel and will be accompanied at all times whilst on site. Any 'young persons' will be risk assessed and appropriately mentored whilst on site.

## **16 - Inspection & Monitoring**

As part of the duties of the Project Manager, the Project Team will carry out regular site inspections within the construction area as well as outside of the site boundaries as required. Regular Audits and/or spotting reports will be conducted by Erith's in house Safety, Health, Environment & Quality team (SHEQ team). Additionally, Erith's 'Conduct Manager' will regularly visit the site to ensure high standards are being met and maintained in all areas on and around the site.

## 17 - Summary of main points:

- The site will operate a one way system.
- All deliveries/collections will be planned at least one day in advance via the dedicated Logistics Manager who will confirm site access information and logistics map has been received and understood. (Occasionally it may be necessary for short notice vehicles to visit the site, such as Fitters for Break Downs etc.)
- The Logistics Manager will inform the TM's at their pre-start briefing of the number and types of vehicles expected each day.
- Drivers will contact the Logistics Manager 10 minutes before arrival to check the site is ready for the vehicle, so that the Traffic Marshals and Banksman can prepare to receive them.
- A Traffic Marshal will be in place / deployed to the junction of Gray's Inn Road / Guilford Street in advance of expected large vehicles (e.g. cement lorries, Skip lorries etc.)
- All vehicle movements will be controlled by the vehicle marshals on arrival.
- Any unauthorised vehicles arriving at the site gate will be turned away and advised to contact the Logistics manager.
- Vehicle exits from site will not be permitted until Traffic Marshals are in place and ready to control and manage the exit safely.
- A strict 5mph speed limit will be in place for all vehicles once on site.
- No reversing out of site will be permitted.
- A Driver induction sheet will be issued to drivers on first visit to site ([see Appendix 2](#))
- Vehicles engines must be switched off; no idling other than authorised vehicles (see onsite management section).
- No private parking is available on site.
- No Smoking permitted in the vehicle access area.
- A wheel wash and/or a hose will be available at the site exit to prevent the spread of any mud/debris onto surrounding roads.
- A road cleaning / sweeper vehicle will periodically be deployed onto surrounding roads to ensure they are free from mud and debris.

## **APPENDICES**


**Appendix 1** – Traffic Management Risk Assessment

**Appendix 2** – Driver induction sheet

## Appendix 1

### Traffic Management Risk Assessment

(The designated HSEQ team member must review this document and approve (TMP – Risk Assessment)).

		TRAFFIC MANAGEMENT RISK ASSESSMENT			CRRDC - GOSH- UCL - NHS					
		Hazards	Risk / Persons at risk	Level of Risk			Level of risk after controls			
Probability	Severity			Global Assessment	Controls to be introduced in order to reduce the risk			Probability	Severity	Global Assessment
<b>Delivery Vehicles entering/leaving and travelling towards site</b>	Vehicle striking/crushing operatives, Traffic marshals, members of the public or property causing damage to property resulting in serious injury or death	4	5	20	Traffic Management Plan selecting unique delivery route to be followed by all the site vehicles. TMP restricting any reversing manoeuvre of site vehicles in surrounding site areas. Drivers to be trained and competent as per actions described in TMP. Vehicles to be maintained, inspected as per manufactures manual and road worthy as per current regulations. Competent and trained Traffic Marshals to be in place when site vehicles accessing, egressing or crossing footpaths near the site hoarding. Operatives on site to wear high visibility vests. Pedestrians to be given priority at all times. Authorised access only to working areas. Segregated vehicle and pedestrian routes. Speed limits to be adhered. Following of GCWC, CCS, FORS and CLOCS guidelines.			1	5	5
<b>Plant entering/leaving and travelling on site</b>	Vehicle striking operatives, members of the public or property causing damage to property resulting in serious injury or death	4	5	20	Traffic Management Plan selecting unique access route to be followed by all the site vehicles. TMP restricting any reversing manoeuvre in surrounding site areas. Drivers to be trained and competent as per actions described in TMP. Vehicles to be maintained, inspected as per manufactures manual and road worthy as per current regulations. Competent and trained Traffic Marshals to be in place when site vehicles accessing, egressing or crossing footpaths near the site hoarding. Operatives on site to wear high visibility vests. Pedestrians to be given priority at all times. Authorised access only to working areas. Segregated vehicle and pedestrian routes. Speed limits to be adhered. Following of GCWC, CCS, FORS and CLOCS guidelines. Plant to be maintained as per PUWER regulations. Maximum on site speed of 5MPH.			1	5	5
<b>Loading and unloading of vehicles</b>	Operative falling from height resulting in injuries or possible leading to fatality. Operative being struck or crushed during loading/unloading.	3	5	15	Fall arrest system with rescue plan to be used, guarding to prevent falls or airbag system to reduce injury from a fall. Operatives to be trained in the use of PFA. Operatives and driver to leave the vehicle when being loaded/unloaded by other machinery i.e. telehandler/ excavator/ crane. Unloading/loading carried out by a competent person. Drivers to be trained and competent as per actions described in TMP. Competent and trained Banksmen to be in place. All vehicles to follow the FORS guidelines with accreditation.			1	5	5
<b>Manual handling</b>	Operatives sustaining/contracting: - Muscular/skeletal injuries. Cuts and abrasions. Weil's disease.	4	4	16	Operative to be trained in manual handling. Suitable gloves to be worn to prevent cuts and abrasions. Wash hands before eating, drinking or smoking. Adequate illuminated work areas. Good housekeeping to be adopted with main access routes kept clear of waste. Mud to be kept off of footpath and roads by cleaning of vehicles and plant before leaving site and the use of regular visits by road sweeper.			1	4	4
<b>Slips and trips</b>	Operative, visitors, members of the public slipping or tripping on footpaths and walkways. Local traffic suffering lack of grip while traveling on roads near the site due to build-up of mud on the roads or icy conditions	4	5	20	Adequate illuminated work areas. Good housekeeping to be adopted with main access routes kept clear of waste. Mud to be kept off of footpath and roads by cleaning of vehicles and plant before leaving site and the use of regular visits by road sweeper. Access routes on site to regularly cleaned Surfaces to be flat and trip free. Rock salt and grit to be deployed during icy/freezing conditions. Reuse of materials on site when possible to reduce production of mud.			1	3	3

Hazards	Risk / Persons at risk			Level of Risk				
Hazards Plant stability	Risk / Persons at risk Operative, visitors and members of the public being injured or crushed possibly resulting in death	Probability		Controls to be introduced in order to reduce the risk	Level of risk after controls			
		4	Severity		Global Assessment	Probability	Severity	Global Assessment
<b>Vehicle pollution</b>	Excessive noise and pollution annoying local residence. Exhaust fumes entering trenches and buildings resulting in carbon monoxide poisoning of operatives. Sounding of the vehicle horn and unnecessary reversing of the engine	3	5	20	Machine to be maintained as per manufacturers manual and inspected and tested as per current PUWER regulations. Excavations to have red and white timber baulks in place where vehicle presence is expected. Competent and trained Traffic marshal to be in place for reversing vehicles inside the site hoarding, for access/egress and when crossing footpaths. TMP restricting any reversing manoeuvre of site vehicles in surrounding site areas. Machine to only lift/carry loads within its designed capability. Tracking or driving machines across slopes to be avoided by wheeled vehicles in particular.	1	5	5
<b>Vehicle traction</b>	Vehicle becoming stuck due to loss of grip resulting in the blocking of access ways for other vehicles and plant and possibly emergency services	4	5	15	Switch off engines when not required. Keep engine revs to a minimum. Competent and trained Traffic marshal and Banksman to be in place for helping to avoid revs as much as possible. Hold waiting vehicles at suitable holding area inside site hoarding. Dedicated people to vehicles accessing/waiting/egressing the site to reduce waiting time. Monitoring system for noise, vibration and dust switching on alarms when acceptable levels are overtaken. Policies of stopping activity and checking when these alarms will turn on.	1	1	1
<b>Vehicle traction with other vehicles</b>	Loss of grip resulting in the vehicle sliding into other vehicles, plant, excavations, property or persons. Could result in overturning causing crush injuries to Occupants of buildings, drivers of plant/vehicles or pedestrians resulting in injury or fatality.	4	5	20	Remove snow and ice and apply rock salt where allowable to provide grip, aid thawing and prevent refreezing. Good housekeeping to be adopted with main access routes kept clear of waste. Mud to be kept off of footpath and roads by cleaning of vehicles and plant before leaving site and the use of regular visits by road sweeper. Access routes on site to regularly cleaned. Surfaces to be flat and trip free. Reuse of materials on site when possible to reduce production of mud.	1	1	2
<b>Plant travelling on the road, from site entrance to storage area.</b>	Plant striking persons of property resulting in property damage, injury of possibly death. Prosecution for non-compliance with road traffic act	5	5	20	Remove snow and ice and apply rock salt where allowable to provide grip, aid thawing and prevent refreezing. Suitable timber baulks in place at trench and pedestrian route edges. Good housekeeping to be adopted with main access routes kept clear of waste. Mud to be kept off of footpath and roads by cleaning of vehicles and plant before leaving site and the use of regular visits by road sweeper. Access routes on site to regularly cleaned. Surfaces to be flat and trip free. Reuse of materials on site when possible to reduce production of mud.	1	1	2

**ACTIVITY RISK ASSESSMENT TABLE**


Hazards	Risk / Persons at risk	Level of Risk			Controls to be introduced in order to reduce the risk	Level of risk after controls		
		Probability	Severity	Global Assessment		Probability	Severity	Global Assessment
Probability of occurrences	1	1	2	3	4	5		
	2	2	4	6	8	10		
	3	3	6	9	12	15		
	4	4	8	12	16	20		
	5	5	10	15	20	25		

"low" risk
"Medium" Risk
"High" Risk

## Appendix 2

### Driver Induction Sheet

DRIVER INDUCTION SHEET – (INSERT SITE NAME HERE)




**YOUR VEHICLE MUST NOT LEAVE WITHOUT THE INSTRUCTION AND AID OF A TRAFFIC MARSHAL OR BANSMAN**




**ON SITE AT ALL TIMES**  
**SPEED LIMIT**

**NO EDGE PROTECTION / PRE-SLUNG LOADS**  
**= NO UNLOADING**




**IF YOU GET OUT OF YOUR VEHICLE WHILST ON SITE YOU MUST WEAR A HARD HAT, HI-VIS VEST / JACKET, GLOVES AND SAFETY BOOTS. NO SHORTS ARE PERMITTED**




**ZERO ALCOHOL POLICY**  
**NO SMOKING OTHER THAN IN THE DESIGNATED SMOKING ZONE WHICH IS TBC**



**YOU MUST REPORT ANY ACCIDENTS, INCIDENTS, NEAR MISSES OR UNSAFE ACTIONS TO BOTH YOUR ESCORT AND THE ERITH TEAM AS SOON AS POSSIBLE**



**IN CASE OF AN EMERGENCY EVACUATION THE MUSTER POINT IS: corner of Gullford St. / Gullford Place**



**THE FIRST AIDERS ON SITE IS TBC**  
**FIRST AID is available in the ERITH SITE OFFICE**

**"I HAVE READ AND UNDERSTOOD THE ABOVE INDUCTION".**

**NAME:** \_\_\_\_\_ **COMPANY:** \_\_\_\_\_  
**REGISTRATION:** \_\_\_\_\_ **DATE & TIME:** \_\_\_\_\_  
**SIGNED:** \_\_\_\_\_