

APPENDIX F

TRAFFIC MANAGEMENT PLAN

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Traffic Management	Dick Peek			

TRAFFIC MANAGEMENT

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1.0 OBJECTIVES

The objectives of this plan are to identify the potential hazards due to vehicles and mobile plant on site. Then to set out a strategy to minimise or eliminate the risks.

This document is to be a 'live' document that will be continually reviewed to take account of the developing risks on site and the necessary precautions.

At the current stage this document has been produced at the pre construction planning stage, and is therefore only a frame work for continual development as the construction process proceeds.

This plan has been prepared to comply with the principles of HSG 144. Any comments or questions regarding this document should be addressed to the SDL Vehicle and Pedestrian Co-ordinator.

THIS DOCUMENT IS PREPARED BY DICK PEEK

The SDL Vehicle and Pedestrian Coordinator is

Insert Name

2.0 REVIEW/REVISION LOG

This plan is to be reviewed when change in circumstances may affect the hazards and as part of the project monthly risk review. Records of all reviews and revisions to be logged below.

Rev. No.	Date	Review by	Comments

3.0 VEHICLE CONGESTION

To prevent congestion on roads adjacent to the site and on site, all deliveries must be agreed with a minimum of 48 hours in advance and be included in the daily delivery schedule. The size of load, storage area, method of off loading and times must be agreed in advance. Time slots must be strictly adhered to. If vehicles arrive outside this allotted period they are likely to be turned away.

4.0 SEGREGATION OF PEDESTRIANS

- 1) At site entrances separate pedestrian access points will be established and maintained.
- 2) Where practical, all main pedestrian access routes will be physically segregated from vehicles by barriers. (Of the 1m high crowd control barrier type)
- 3) Where routes are established for a short duration and or before any more permanent barriers can be established, plastic posts and boards or stakes and bunting may be used to demarcate pedestrian routes.
- 4) Walkways will be signed, well lit and have a trip free surface.
- 5) Where it is necessary to cross main vehicle routes, pedestrian crossing points will be provided. They will be:
 - Located away from driver blind spots
 - Have signs warning drivers of crossing point
 - Have signs warning pedestrians of vehicles
 - Where practical have hatched markings on roads
 - Have speed ramps prior to crossing points

IF We have one main site entrance, how are we going to operate it so it is clear to pedestrians – risk is same for 1 or 50 vehicles.

The above will be indicated on site layout drawings, which will be updated regularly. Copy of the drawings will be:

- a) Kept in Appendix A of this document
- b) Displayed in the security centre/site pedestrian access point
- c) Site canteen(s)
- d) Displayed at vehicle entrances
- a) Issued to contractors

5.0 BUILDING INTERNAL PEDESTRIAN ROUTES

- 1) During the building works it is anticipated that large vehicles will be unloaded in loading bays/ **Areas** situated in: - **SITE TO COMPLETE**

- 2) Due to the nature/design of the building it may not be feasible to segregate all pedestrians/vehicle routes within the loading/unloading area where forklifts/dumpers and skip lorries will operate. For internal routes the precautions will include:
 - Segregated walkways and crossings as Section 5 where possible
 - Warning signs and mirrors at blind corners
 - Barriers at pedestrian entrances directly onto vehicle routes
 - 10 MPH Speed limits
 - On vehicle warning system (as Section 8)

- 3) Main internal pedestrian access routes with precautions in place will be recorded on site layout drawings, which will be regularly reviewed and updated. Copies of the drawings will be kept/displayed/distributed.
 - a) Kept in Appendix of the section A of this document
 - b) Displayed in the security centre/site pedestrian access point
 - c) Site canteen(s)
 - d) Displayed at vehicle entrances
 - e) Issued to contractors

6.0 VEHICLE WORK AREAS

These are some areas where it will not be possible to segregate vehicles and pedestrians from many work areas such as excavations, storage areas, fork lift and lifting operations where personnel on foot are necessary for the operations being carried out in the area, sometimes working in conjunction with the vehicles. Precautions in such cases will include:

- Exclusion of those not required to be in the area (where possible)
- Vehicle marshals to control vehicle movements
- Safe vehicle manoeuvring practices
- On board vehicle warning devices (see Section 9)
- Trained vehicle banksmen
- Pedestrian use of HI-Vis vests/coats
- Driver rules adequate lighting of the area and warning signage

7.0 **VEHICLE MOVEMENTS**

Main vehicle routes

- 1) Where feasible one-way traffic routes will be established to reduce the need for reversing and the danger of head on collisions. These routes will be marked on drawing and regularly updated and kept/displayed/distributed.
- 2) Routes will be adequately lit and sign posted.
- 3) Vehicle routes will be designed to maximise gradient. Where significant gradients temporary works exist, warning notices will be posted at head and foot.
- 4) Traffic route surface will initially be the existing tarmac/concrete surface. At stages a temporary concrete crushed roads will be established ramp access to basements.
- 5) All traffic routes will have set speed limits, max. speed limit anywhere on site will be 10mph. This will be reviewed periodically or where changes in vehicle movements.
- 6) Where appropriate restricted openings in structure etc will be identified and signed.
 - Re Hazard strips on structure
 - Height restriction boards

8.0 **VEHICLES**

- 1) All delivery vehicles will have:
 - Hazard warning lights
 - Audible reverse warning sounder
 - Means of clear 360⁰ vision for manoeuvring (i.e. CCTV mirrors etc as HSG 144 or banksman when manoeuvring or reversing)

- 2) Site vehicle /plant
 - Will have flashing hazard beacon
 - Audible reverse warning
 - Where appropriate- Roll Over Protection (ROP), Fall Off Protection (FOP)
 - Be selected with regards to safety aspects of its use (i.e. size, duties, visibility)
 - Have 360⁰ all round plant vision or be provided with driver vision assistance such as CCTV, frenzal lens mirrors etc or be under the guidance of a trained banksman while manoeuvring/reversing.
 - A copy of the plant latest Thorough Examination Certificate (and where appropriate load test) together with its latest maintenance record, is to be presented to Higgins prior to its commencement of work on site. Update thorough Examination Certificates are to be issued to site management as and when carried out. HIGGINS to keep copies on file.
 - Cranes- see separate document.
 - When unattended all vehicles must be left without keys in the ignition and be immobilised.

9.0 VEHICLE MAINTENANCE

- All vehicles must have, where appropriate, current Thorough Examination Certificate, which must be presented to Higgins site management for approval prior to start.
- Maintenance will be arranged by each contractor and carried out in accordance with and at periods set out in manufacturer’s recommendations or at shorter intervals if appropriate.
- Where possible, all plant will be maintained in the central plant maintenance area, which will have a hard standing and be free of construction hazards.
- Trained fitters will carry out all maintenance. Certificates of training/employer’s certification of competence will be presented to Higgins site management for checking prior to commencement on site.

10.0 DRIVERS/OPERATOR SKILLS TRAINING

- Delivery Drivers will be expected to have correct driving licence for the vehicle being operated as issued by the DVLC.
On occasions this will be checked by security guards at the entrance to the site.
- Drivers of delivery vehicles with Hi-abs crane facility or on board forklifts will present certificates of training prior to operation of the plant on site.
- All plant operators will be required to have CITB/CTA certificates of training and achievement or equivalent as deemed appropriate by Higgins Group PLC Safety Department.
- All plant operators will produce for Higgins Group PLC site management inspection relevant confirmation of training and achievement prior to commencement on site and each time refresher training is carried out.

11.0 DRIVER RULES

- 1) No person is allowed to operate vehicles and plant unless trained to do so.
- 2) No passengers are to be carried unless the vehicle is specifically designed to do so.
- 3) Drivers/operators must be familiar with all operating controls and safety devices of the particular piece of plant they are to use.
- 4) Drivers/operators to drive carefully at all times and note the presence of a high level of pedestrians on site.
- 5) All drivers/operators to drive carefully at all times and note the presence of a high level of pedestrians on site.
- 6) All drivers/operators are to only operate the vehicle/plant strictly in accordance with the manufacturers’ recommendations/instructions.

- 7) Must comply fully with all safety signage including:
 - Speed limits – 10mph.
 - Stop signs
 - Give way signs
 - One-way signs etc
 - Loading restrictions signs
- 8) Reversing is to be kept to a minimum and only undertaken when or under the direction of a trained banksman.
- 9) Hazard warning lights or flashing beacons to be on at all times while the vehicle is in operation.
- 10) Excavations only to be approached when safe to do so and guided by a trained banksman (stop blocks or other adequate edge protection must be in place)
- 11) Delivery drivers to remain with their vehicle in the cab, until directed by a competent person.
- 12) Outside the cab drivers must wear:
 - Safety helmet
 - Hi Visibility vest
 - Safety boots
 - Other PPE as required, by the task method statement.
- 13) Vehicles left unattended must be left in a safe condition and with the key removed.
- 14) No reversing onto public highways/roads.
- 15) All vehicles must pass through **A** the wheel wash area before leaving site
- 16) Open top lorries to be sheeted
- 17) Dumper operators must leave the unit when it is being loaded and keep a safe distance away
- 18) Dumper operators will wear seat belts when travelling at all times.
- 19) All drivers must report to security

12.0 BANKSMAN

All vehicle banksmen will:

- Be selected for the duties to be carried **out**, bearing in mind their physical and mental abilities (selected and appointed by the contractor).
- Be trained to a level acceptable to Higgins Group PLC Safety department and have proof of such training.
- Wear **orange** hi-vis when directing vehicles.
- Use **hand** signals as illustrated in HSG 144.

13.0 PLANT ON PUBLIC ROADS

No plant will be allowed on public roads without an agreement by Higgins Group Plc Safety dept.

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14.0 SITE VEHICLE SITE ENTRANCE/EXIT

- Will be designed to give adequate vision of vehicles entering/leaving site to members of the public on foot and other road users and give adequate vision to delivery drivers or warning notices of a concealed entrance to be posted accordingly
- Where necessary vehicles entering/leaving site will be guided by a traffic marshal.

15.0 LOADING/UNLOADING

- Vehicles only to be off loaded/loaded when on level ground.
- Where delivery lorries has a hi-ab or their own fork lift, drivers must have been trained and have proof of training in this equipment
- Safety techniques for unloading/loading i.e. methods of attaching crane hooks etc, must be employed by the contractors
- Off loading bays to be provided

16.0 SHEETING OF VEHICLES

- Waste removal from site
- Open topped vehicle and skips will be sheeted before leaving the site
- To facilitate this a **VEHICLE** sheeting gantry may be required by contractors.

17.0 REFUELLING

- All refuelling on site will be undertaken at the central refuelling point and or by the dedicated refuelling team. Ensure tanks are banded.

18.0 INFORMATION FOR PERSONNEL

- All site personnel will receive relevant details of this plan at site induction talks before they commence on site, these will include:
 - PPE
 - Pedestrian walkways/traffic routes
 - Plant operatives rules
 - Refuelling
- Where rules/routes are updated these will be advised to operatives via their line managers at toolbox talks
- Delivery drivers will be stopped at the entrance, HAVE explained TO THEM the vehicle rules and given a copy of the site vehicle rules and traffic route plan

19.0 RESPONSIBILITIES

<u>Responsibility</u>	<u>Position</u>	<u>Company</u>
Preparation and maintenance of the plan.	Vehicle/Pedestrian Co-ordinator	HIGGINS
Distribution of plan to Contractors Management	“	“
Ensuring plan is implemented	“	“
Overall management of plan Overall implementation of the plan	Vehicle/Pedestrian Manager/co-ordinate	HIGGINS
Receiving and checking of plant examinations	Contractors	All Companies.
Receiving and checking of Driver/ Contractors Operative training		All Companies
Provision and maintenance of barriers, Signage, crossings, lighting etc	Contractors	All Companies

APPENDIX A Site Layouts

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APPENDIX B Delivery Schedule

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APPENDIX C Risk Assessments

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RISK ASSESSMENT

Location	
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Work Activity/Task	Traffic Management	
Significant Hazard Identification	Who may be Harmed (Tick ✓)	
1. Vehicles entering and leaving the site/compound.	Employees	✓
2. Vehicle movements on site.		
3. Untrained drivers.	Contractors	✓
4. Obstructed driver and pedestrian vision.		
5. Reversing vehicles.	Residents	
6. Speeding vehicles		
7. Lack of awareness of site traffic management arrangements.	Public	✓
8. Existing environment surrounding the site e.g. schools, narrow roads, densely populated residential areas, low headroom.		
9. Excessive mud and debris on roads.	Visitors/school children	
10. Undulating ground conditions on site.		✓
Overall Assessment of Risk Prior to the Implementation of Control Measures (Tick One ✓)		
Low	Medium	High ✓
Control Measures to Reduce the Risks (use additional sheet if necessary)		
1. Vehicle entrances to be clearly signed, hoardings to be formed as a bell mouth to improve visibility and vehicle turning circle. Barrier/gate to be positioned a sufficient distance into the site to allow vehicles to pull off the road and footpath and into the site whilst awaiting further instructions. Provide separate entrances for pedestrians and vehicles to enter site. Directional signage is to be prominently displayed to indicate the direction vehicles are to exit the site.		
2. Segregated pedestrian routes to be formed and clearly signed from the site entrance to the site office/compound and on primary traffic routes. Designated road-crossing points are to be established and prominently signed.		
3. Only appropriately trained and authorised personnel are to drive on site. Vehicle not to be left running when unattended. Ignition keys are to be removed from vehicles when left unattended.		
4. Materials are not to be stored on corners or bends on vehicle or pedestrian traffic routes in a manner that will obstruct the lines of visibility.		
5. Where reasonably practicable, a one-way traffic system is to be implemented on site, where this is not reasonably practicable, a designated vehicle turning point(s) is to be established and prominently signed. If it is necessary for a delivery vehicle to reverse whilst on site, it must be under the direction of a competent person (banksman) at all times.		
6. A 10 mph speed limit is to be imposed on all site traffic with appropriate signage prominently displayed. Where necessary traffic calming measures are to be implemented and prominently signed e.g. speed humps		
7. A copy of the traffic management plan is to be displayed on the Health and Safety notice boards in the site manager's office and the site canteen. Traffic management arrangements are to be brought to the attention of all persons during site inductions.		
8. Site deliveries to be arranged so as to avoid busy pedestrian periods and school start and finish times. Suppliers are to be advised of restricted site delivery times, restricted road widths, and low vehicle headroom.		
9. Wheel washing facilities to be installed at site exit. Install permanent roads as early as possible. Vehicles to keep to hard surfaces. Implement a programme of regular road cleaning.		
10. Lap/seat belts to be worn by drivers and loads to be secured as appropriate. Site plant e.g. dumpers, ride-on-rollers etc to be fitted with roll-over protective structures (ROPS). Vehicles/plant must be suitable for the terrain on which they operate.		

Personal Protective Equipment Needed (Tick ✓) Remember PPE is always a last resort								
Head	Safety footwear	Hi Vis	Gloves	Respiratory Protection	Eye Protection	Hearing Protection	Harness	Other
✓	✓	✓	As Required.					
Information, Instruction and Training								
All operatives to have traffic management explained at induction.								
All drivers / operators to hold appropriate training.								
Overall Assessment of Risk after the Implementation of Control Measures (Tick One ✓)								
Adequately Controlled Work can proceed. Monitor and review regularly.	✓	Further Control Needed Additional Method Statement required to reduce risk.	Unacceptable Work must <u>not</u> proceed.					