Health, Safety & Wellbeing

Construction Traffic Management Plan (CTMP)

Begbroke – Science Park

BBSP-MACE-ZZ-XX-HS-W-000003 P003

UNCONTROLLED WHEN DOWNLOADED OR PRINTED
MG-H&S-FM-2657 -CTMP
V5–November 2021
Classification - Public

Contents

Abbreviations

CCTV	Closed circuit television
FLT	Forklift truck
HSW	Health, Safety & Wellbeing
MHE	Manual handling equipment
WRRR	Work related road risk (standard)

Review and amendments

Review Date	Revision Number	Page Number	Comments / Amendments	Initials
20.01.22	**000**	**All**	**First Draft**	AN
11.02.22	**001**	**All**	**Reviewed**	AN
30.06.22	**002**	**10 + 12**	**Updated to take into account comments received from LPA. Contact details included. Sandy Lane – No HGV / Construction traffic will not use this road.**	MH
11.07.2022	**003**	**7**	**Updated to take onboard comments from Transport Planner: - Transport Development Control: Cherwell, West Oxfordshire and Oxford City**	**MH**

Reviewed and approved by		
Name	Andy Norton	
Position	Project Manager	
Signature		
Date	11.07.2022	

The Traffic Management & Logistics Plan is reviewed and revised and signed off as suitable for current activities by the Project Manager & HSW Manager.

The Construction Traffic Management Plan including records and drawings should be reviewed at least monthly or more frequently if circumstances have changed.

1. Introduction

This document has been prepared to discharge condition 20 of the outline planning permission ref. 18/00802/OUT which states the following:

"Prior to commencement of the development hereby permitted, a Construction Traffic Management Plan (CTMP) shall be submitted to and approved in writing by the Local Planning Authority. The CTMP shall include details for access by construction traffic and delivery vehicles. Thereafter, the approved Construction Traffic Management Plan shall be implemented and operated in accordance with the approved details."

It should be noted the new permanent carpark referenced within this document is subject to a separate planning permission ref. 18/00803/OUT

The Construction Traffic Management Plan (CTMP) is used to document and demonstrate how Mace, their suppliers and all interested parties will comply with legislation, discharge their duties, and comply with industry standards and best practice in traffic and logistics management on their projects.

This document should be treated as live and updated / amended / reviewed at suitable intervals, typically every month or sooner if required.

This document is to be read in conjunction with the following:

- Mace Logistics Standard
- Strategic Lifting Plan
- Project Fire Safety Plan
- Security and Access control documents i.e., Assignment Instruction
- Project Delivery Plan and Construction Phase Plan
- Environmental Management Plan
- Temporary works design, plan & guidance

And any other relevant project specific plans.

2. Project details

The development is located at Begbroke Science Park, Oxfordshire.

The project comprises;

Building B – Commercial Building (GIA c.80,000ft²) is a 3 storey above ground building. Building B will be completed to a Shell and Core finish only.

Building A – Academic Building (GIA c.53,000ft²) is a 3 storey above ground building. Building A works will comprise of both Shell & Core and Fit Out.

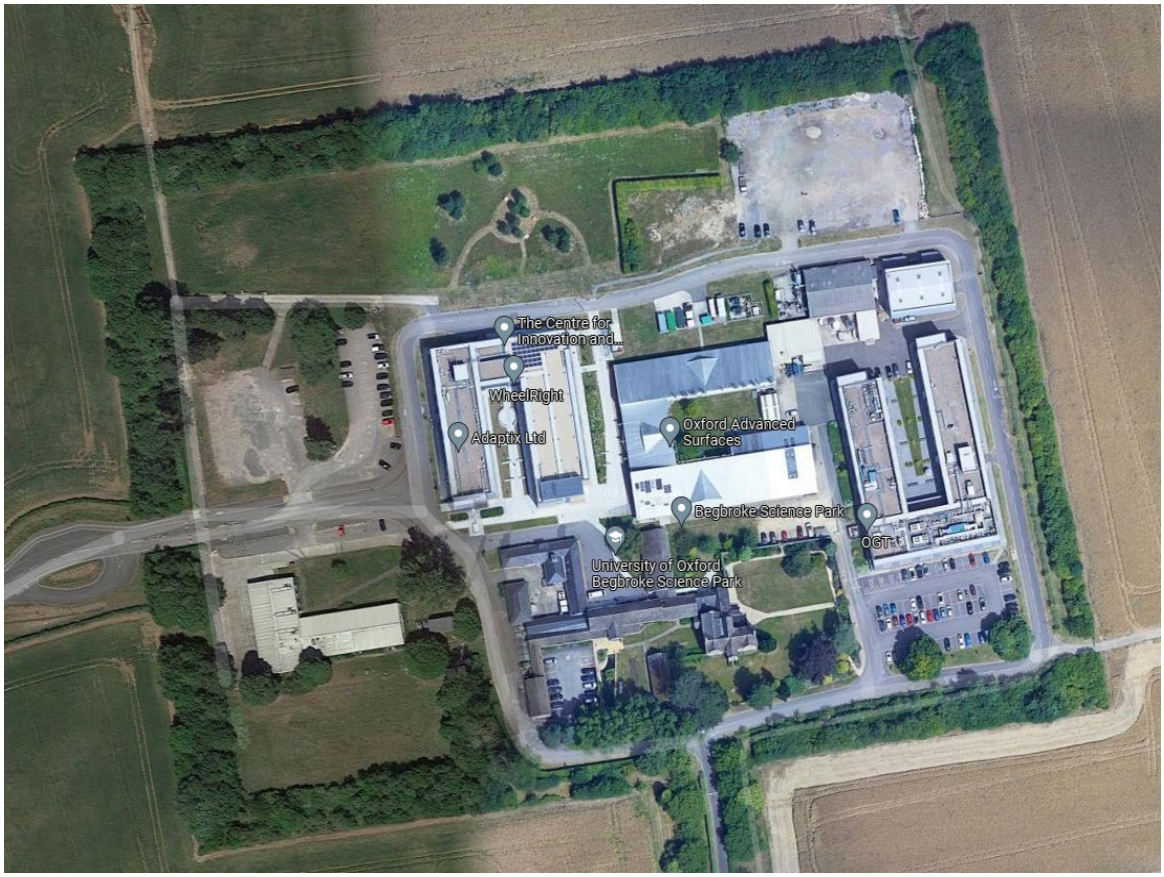
There will be associated car park and landscaping works that will form part of the Main Works.

Begbroke Science Park, surrounded by agricultural land, and nestled between Yarnton, Kidlington and Woodstock and Northwest of Oxford City Centre. The site is accessed via Begbroke Hill Access Road, east of A44 Woodstock Road. The site is not in immediate vicinity of any residential properties.

Begbroke Science Park comprises of several one and two storey buildings which accommodate laboratories, engineering facilities and administrative buildings including a Grade II listed three storey farmhouse.

The site of the Oxford University Begbroke Science Park was originally used for farming. Research began on the site in the 1960s, becoming the Headquarters of the Weed Research Organisation.

When the site was originally developed into a research development in the late 1980s, a reservoir was located in the north-east corner. As the Science Park developed, the reservoir was backfilled and numerous laboratories and offices were constructed in 2004, forming the campus as it is today.



Site Hours

Site operating hours will be Monday – Friday 7.30 – 18.00 and Saturday 08.00 – 13.00.

It should however be noted that the site will open at 6.30am to allow trades to stagger their start times & operatives to use the welfare facilities before they start work.

Deliveries will generally be arranged to arrive avoiding peak hours (07:30-09:00 & 16:30-18:00), and also avoid any areas with a school in the vicinity between (15:00-16:00).

Where practicable noting that there will be exceptions including such situations as concrete pours and delivery of specialist plant and equipment.

Speed limits

All delivery drivers, visitors, and site personal will adhere to the local speed limits,

Entry road to site off the A44: 30mph

Campus: 10mph & 5mph over speed bumps.

3. Key considerations

Site history

For ground conditions refer to the ground investigation and geotechnical reports and topographical surveys located on Aconex.

The two development plots on the existing campus are currently vacant and used as temporary unmarked car parking zones to support the campus wide parking demand.

The temporary car parks also serve as overspill space for events and conferences parking when required.

The ground conditions revealed by the investigation initially comprised a surface layer of made ground 0.25m to 2.30m thick, with the thickest comprising reservoir infill in Zone B. The made ground mantled the superficial river terrace deposit of Summertown-Radley Sand and Gravel Member, which was underlain by the solid geology Kellaways Clay Member at depths between 4.30m and 4.40m. The Oxford Clay over Kellaways Sand Member succession (anticipated from BGS mapping to cover the Kellaways Clay Member) was absent, having been fluvially eroded and replaced by the superficial river terrace deposit. The Kellaways Clay Member was in turn underlain by a 2.70m or 2.80m thick layer of Cornbrash Formation, met at depths between 7.50m and 7.90m, which in turn was underlain by the Forest Marble Formation. The deepest boreholes were completed within the latter at 20.20m depth. Separate soil profiles of the ground conditions encountered across Zone B (Figure 3) and Zone C (Figure 3.1), from south-west to north-east, are presented in Appendix 3 of the ground investigation report.

Traffic System Layout.

We have established an access / exit way system on site (see logistics Plan) to avoid disruption from vehicles arriving and leaving site at the same time. This will be controlled at all times by trained security/gateman from our designated logistics contractor.

Pedestrian/Cyclist

We note that individuals within the campus cycle to and from work, we will ensure each gate we have in operation is managed by a trained banksman to ensure any vehicles are always escorted when accessing and egressing site. Additionally, CCTV will be installed to all vehicle gates.

Access for site emergencies

All vehicle and pedestrian access points will always remain clear, therefore not blocking access for the emergency service.

The fire safety plan MG-H&S-FM-2353 will be distributed to the station Manager of the local fire brigade. The plan will detail the emergency procedure for the site and who to contact in the event there is an emergency outside of the site working hours. The station Manager will also be invited down to site to review our emergency procedures

Parking

Car parking will be initially provided on the existing temporary hardstanding within the footprint of the commercial building. This will be transferred following completion of the permanent carpark; further detail can be found within section 5 of this document.

Section 61

Nosie, dust, and vibration will be closely monitored during throughout the project. Proactive measures will be taken to secure a section 61 agreement whereby measure for controlling the site and delivery hours will be agreed with council ahead of works commencing.

Noise

We recognise works can be undertaken during the working hours 7.30 – 18.00 Monday – Friday and 08.00 – 13.00 Saturday and anything outside of these hours will by prior agreement. We will proactively monitor noise throughout the project ensuring, we will provide mitigating measures such as off-site pre-fabrication, order correct lengths of steel to avoid cutting, use acoustic barrier or cutting stations on site and have mains powered available on site to prevent the need to use generators. We have taken note of the information within the Begbroke contractors' guidelines.

Archaeology

Any unanticipated archaeological finds are to be reported to Mace immediately and work stopped until it has been investigated further.

4. Roles & responsibilities

Project Director: Simon Allen; M +44(0)7468 694007

- Assist with planning and preparation of project Traffic Management and Logistics Plan in line with the Logistics Standard and updating where required.
- Make specific reference to the plan in the PDP/CPP.
- Confirm a site-specific risk assessment is carried out for all traffic activities (arrival, departure, (un)loading, movement, maintenance).
- Confirm a project induction is available to all pedestrians and drivers, which shows key routes, restrictions etc.
- Monitoring and reviewing HSW performance of all parties.
- Confirm there are adequate emergency procedures in place for all foreseeable events i.e., traffic issues, spills, medical evacuation, fire.
- Confirm there is adequate lighting on all access routes and common user areas

Logistics and Traffic Management Coordinator: Scot Chapman; M +44 7826529041 **/ Andy Norton;** M +44 (0)7884 580648

- Coordinating the Traffic Management and Logistics Plan for the project in line with the Logistics Standard.
- Confirming suitable and sufficient arrangements and controls are in place with regard to Traffic Management & Logistics including:
    - Logistics contractor implements suitable traffic management control(s).
    - Logistics contractor provides segregated pedestrian and vehicle routes.
    - Logistics contractor provides materials / equipment to support the traffic management & logistics strategy within the Traffic Management & Logistics Plan.
    - Logistics contractor provides competent resources, in line with the Mace Logistics Standard.
    - Logistics contractor liaises with CM Principal Contractor with regard to production of traffic management strategy.
    - Performance measurement / feedback to CM team regarding traffic management strategy and contractor compliance.
    - Logistics contractor carries out risk assessment(s) for traffic activities.
    - Logistics contractor facilitates deliveries and management of delivery / logistics strategy.
    - Logistics contractor provides wheel cleaning facilities and road sweeping arrangements.
- Coordination of all first-aid requirements for the project including the maintenance of the site first-aid provisions
- Monitor compliance with Mace Logistics Standard through inspections and audits on Yellowjacket. Record findings on Yellowjacket and track close out.
- Implement appropriate action with any trade contractor who is failing to comply with Mace Logistics Standard.

Logistics Contractor

- Contribute to, implement, and monitor the Traffic Management and Logistics Plan in line with the Logistics Standard.
- Provide segregated pedestrian and vehicle routes.
- Provision of materials / equipment to support the Logistics and Traffic Management Plan.
- Provision of competent resources.
- Liaise with Principal Contractor regarding production of traffic management strategy.
- Performance measurement / feedback to Construction Management team regarding traffic management strategy and contractor compliance.
- Carry out risk assessment for traffic activities.
- Facilitate deliveries and management of delivery / logistics strategy.
- Provide wheel cleaning facilities and road sweeping arrangements if required.

Contractors

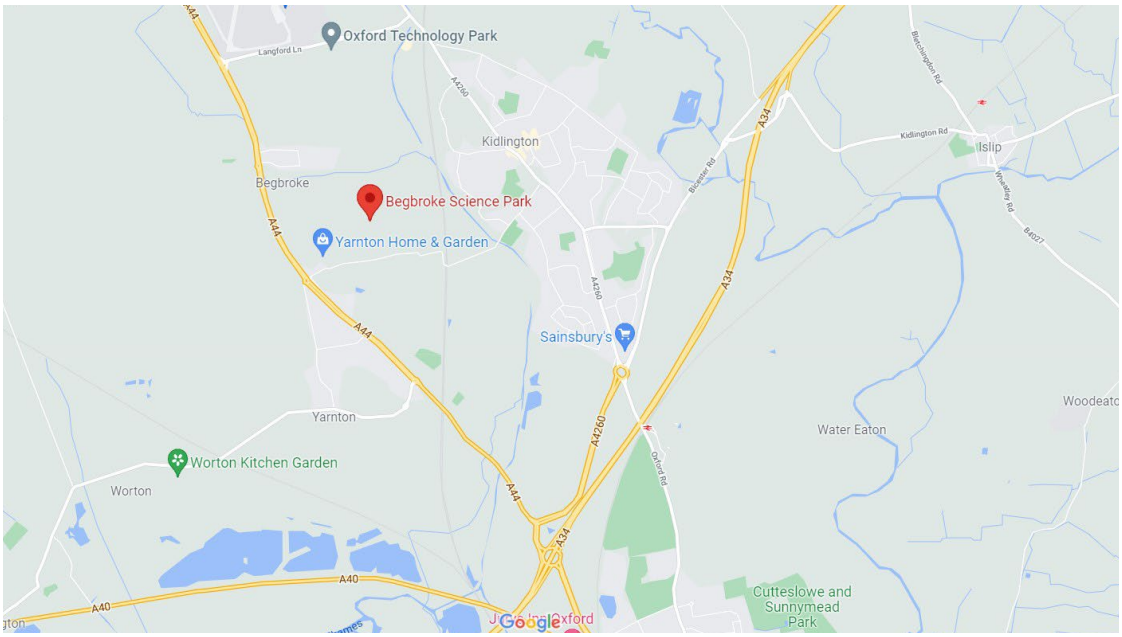
- Comply with Traffic Management and Logistics Plan.
- Report issues.
- Confirm all personnel attend project induction.
- Provide competent workforce and supervision.
- Investigate any accidents / incidents and confirm necessary control measures are put in place and communicated to the Principal contractor.
- Provide plant / equipment which complies with relevant statutory obligations.

Drivers / plant operators

- Should be competent and trained to the appropriate standard required within the Key HSW Standards and other Mace HSW requirements.
- Drive with care and comply with the requirement of project strategy.
- Use the correct equipment for the task, ensuring they are suitable for use, marked with safe working load, properly maintained, inspected, and thoroughly examined regularly

5. Vehicle management

Primary vehicular access to the west of the site is via Begbroke Hill Access Road, off the A44 Woodstock Road, which leads from Oxford and towards Worcester. This access route was developed in 2012 to reduce access via Sandy Lane.



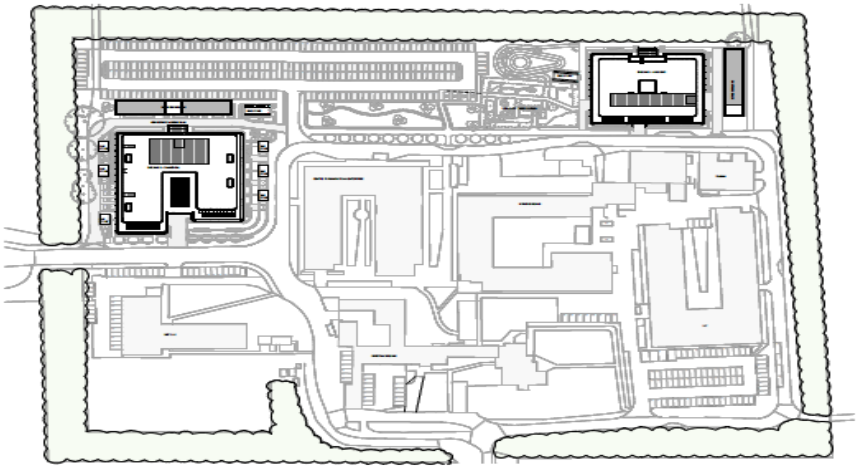
A secondary access route is through Sandy Road located to the South of the site. This road is currently only used for Emergency Egress, cyclists, and pedestrians. This road is unsuitable for HGV / site delivery and will not be used for construction traffic.

Public transport links are currently located via a bus stop located on the A44. There is a University Shuttle bus stop located at the centre of the site, connecting the Campus with Oxford. A future train station is planned to the Southeast of the wider context, providing quick connections to Oxford and Oxford Parkway Stations.

The National Cycle Route 5 provides the cycling connection from Oxford via the A44.

A permissive pedestrian and cycle route is to be created and details of this will be provided under separate cover (discharge of condition 17 of the outline planning permission)

There is a public right of way, which leads up the path from Sandy Lane and to the East of the Begbroke Science Park landscaped boundary line.



Mace identified the need for the campus to maintain parking for the campus residents and therefore provided a programme which will maintain parking for the duration of the project.

In summary the works will be carried out in two phases, with the car parking initially being provided on the existing temporary hardstanding within the footprint of the commercial building. Initial works will focus on the Academic building and completing the new carpark. When the permanent car park has been completed and handed over, car parking will transfer, and the commercial building will commence. The hoarding lines will be adjusted accordingly in this period. The logistic plans on the following page illustrate our intentions. Please note the 'new/permanent car park' is subject to a separate planning application (ref. 21/03195/F).

To reduce the traffic on the campus Mace, propose to provide delivery access to the commercial building adjacent to the site campus entrance, see below. Adaptation to the existing security barrier will be required to provide a suitable access

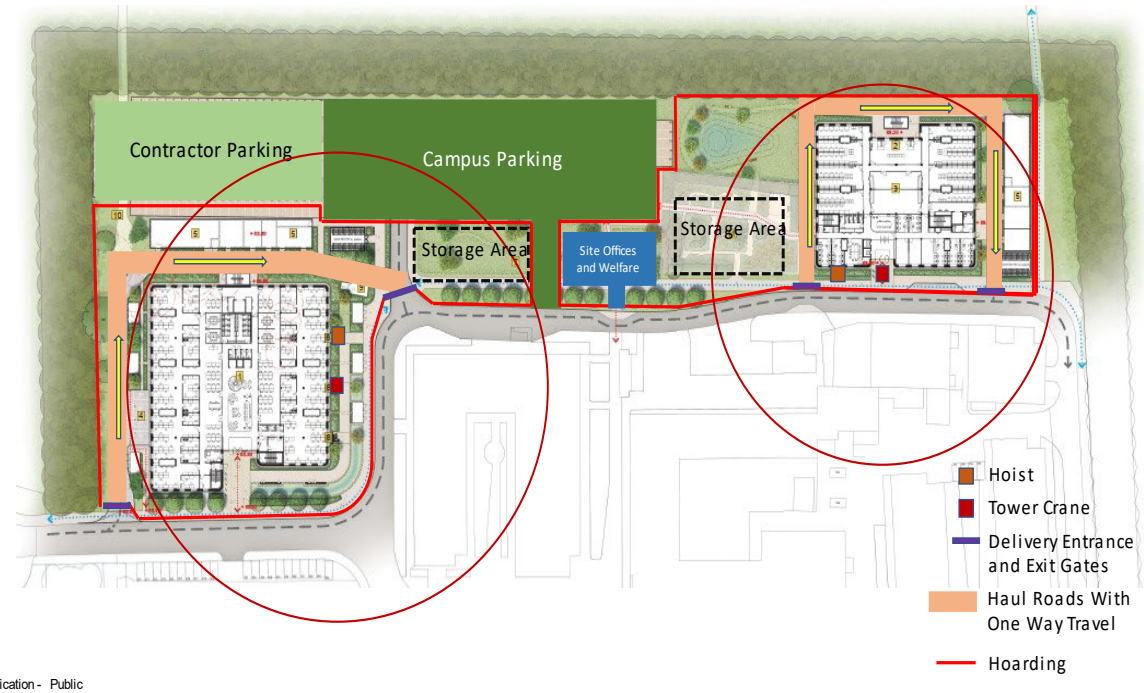
Phase 1 Apr 22 – August 22 – substructure & superstructure of the academic building and permanent carpark. The hoarding line will be set up as illustrated below, this will be adapted for the phase 2.

Phase 1

Classification - Public

Phase 2 – August 22 – October 23 -following the completion of the permanent carpark, Mace will commence works on the second building, commercial building, alongside continuing work in the Academic building. Logistic plan with then change to the below. There is provision within the permanent carpark for contractor car parking.

Phase 2



Classification - Public

Deliveries will be organised on a just in time basis through our Datascope system with specific time slots allocated to each vehicle. The actual gate of entry will be determined ahead of delivery and included within the information required to operate the booking system. The booking in system should negate the need to have vehicles holding outside of site. Each delivery will have a designated time slot ensuring deliveries do not arrive at the same time.

Traffic Marshalls will take responsibility for managing both entrance and exit gates and signage will be installed at critical locations directing site traffic. Vehicles will not eb allowed to park temporarily on the local roads and any delivery without a booking will be turned away.

Lorries will not be allowed leave site without undertaking wheel washing by jet wash to prevent the transfer of materials onto the campus and local roads.

Segregation – Vehicles and pedestrian will be segregated using chapter 8 barriers. All vehicles will be Clocs compliant (see below for details). Each vehicle entrance gate will have a designated traffic marshall who ensure the vehicle access & egress site safely.

One-way systems – There will be one-way systems implemented during both Phase 1 and Phase 2 of the project. This will minimise the need for vehicles queuing on campus roads.

Routing – as identified within the logistics plan.

Signage – Mace signage will be displayed identifying delivery route to site. These details will be issued to the supplier prior to them delivering to site.

- **Spillage**

mace

Spill response procedure

Stop → **Contain** → **Notify**

Stop

Stop work immediately.
Prevent any more material spilling if safe to do so.
(E.g. right an oil drum, close valves)

Eliminate any sources of ignition. If safe to do so prevent any more material spilling, (E.g. right an oil drum, close valves)

Contain

Contain the spillage by using spill kits and drop trays immediately or by using bunds of earth or sand.

Check the spill has not reached any nearby drains or manholes, watercourses, ponds or other sensitive areas. Bund drains or manholes to stop the substance entering the drainage system.

Ensure that any spill kit contents are replaced after use and the used contents are disposed of as hazardous waste.

Notify

Notify Mace immediately giving the following information:

- Whether the substance has entered a drain or watercourse, or is affecting the environment
- Substances involved
- Location
- Reason for the incident
- Quantity involved
- Controls implemented

SITE EMERGENCY CONTACT NAME(S):

SITE EMERGENCY CONTACT NUMBER(S):

SPILL KIT LOCATIONS:

Major spillage:
Cannot be controlled: pollution has entered, or could enter a drain or watercourse. Report to Mace without delay, and record on YellowJacket.

Minor spillage:
Can be controlled: pollution has not entered or cannot enter a drain or watercourse. Report on YellowJacket.

1 Identify the source of the spill and locate the spill kit

2 Assess the situation and ensure the area is safe.

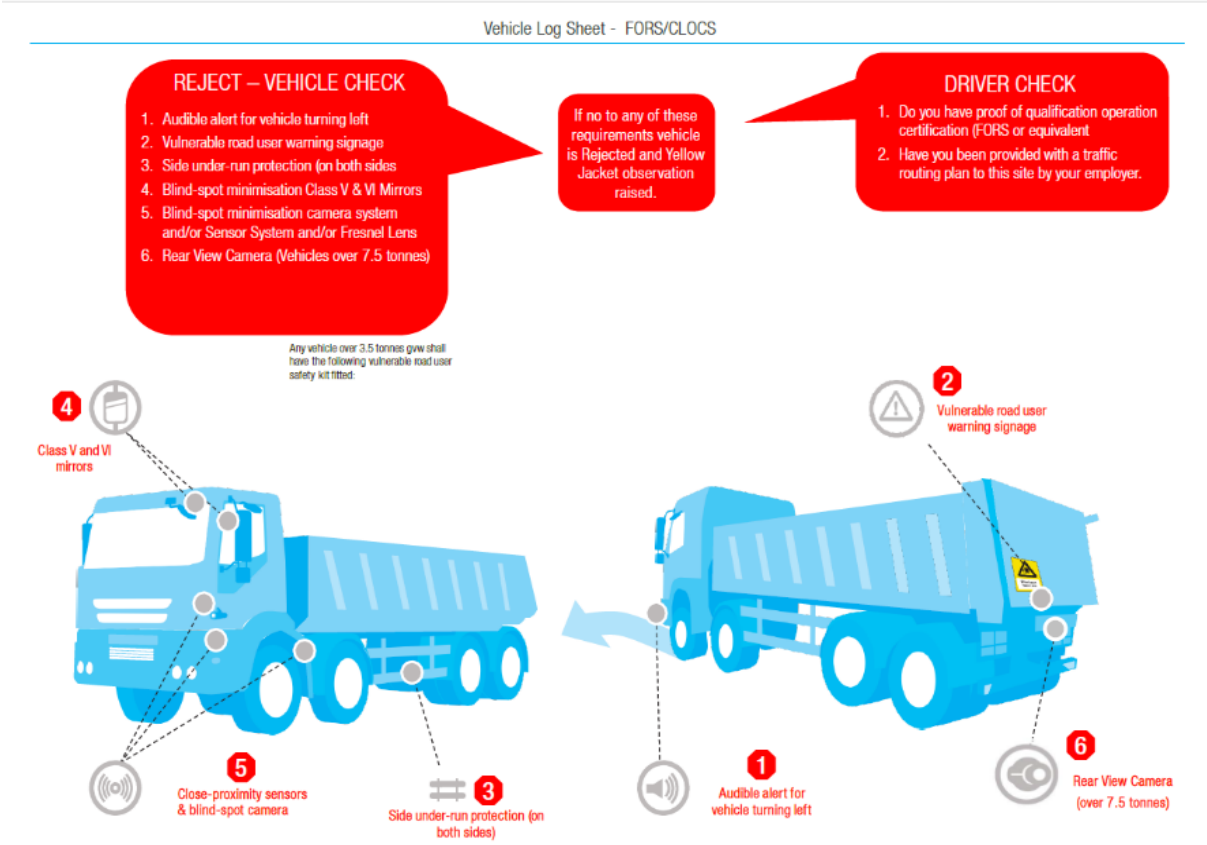
3 Contain the source of the spill and prevent spreading and entering drains

4 Absorb spillage using spill kit

5 Clean up the affected area with granules or call in specialists

6 Double bag used spill kits and dispose of used spill kits as hazardous waste.

- **CLOC's compliance**



- **Oversize loads**

At present the project design should not require any abnormal loads throughout the construction, if a contractor requires to make such a delivery, then a separate plan will need to be issued.

- **Neighbours –** Covered in opening site details
- **Driver inductions / Briefings –** These need to be detailed by each contractor for their own need's dependent on the requirements of the drivers, i.e., do they operate the Moffit, Hiab, etc.
- **Competent operatives –** i.e., Traffic marshal – A73 / NRSWA
  - Driver inductions / Briefings

    These need to be detailed by each contractor for their own need's dependent on the requirements of the drivers, i.e., do they operate the Moffit, Hiab, etc
  - Competent operatives i.e., Traffic marshal – A73 / NRSWA

6. Vulnerable road user management

With deliveries sharing routes of other road users (vehicles / cyclist / pedestrians) Site Rules, Inductions and vehicle arrivals will be announced and consideration given to the following.

- Pedestrian segregation
- Cyclist management / awareness / drawing highlighting key hazards
- Neighbours
- High pedestrian usage areas (restaurant, security entry pint etc.)
- Visitor Centre vehicle / pedestrian access route(s)

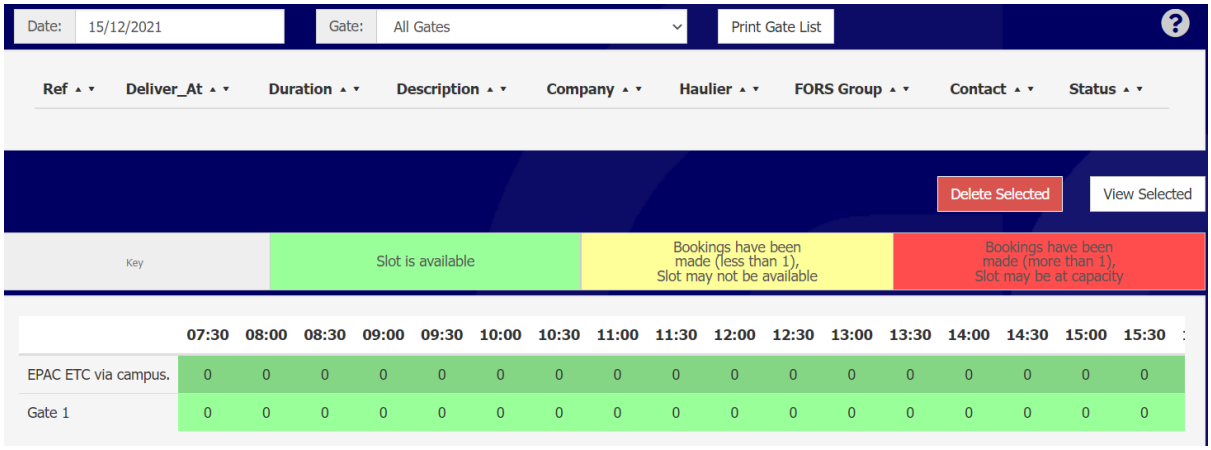
Access to site will be via the A44 then on to the Begbroke Hill Road. This will be the primary route to the campus. Once the vehicles are on site they will adhere to the logistic plan. Egress from site will the same back onto the public highway.

Within the above logistic plans our priority will be to eliminate, where possible, the risk of any interface between traffic and the cars, pedestrians and cyclists that use the campus and adjacent buildings.

To address this, we will minimise vehicle access to site as much as possible for the duration of the project. This approach will be supported by a strategy to optimise prefabrication offsite. The vehicular delivery access to the commercial building will be adjacent to the campus entrance thus reducing the need for construction traffic needing to utilise the campus roads.

7. Delivery management

All deliveries requests are to be booked in advance for the project through Data scope which is a web-based system which the project will use for the control of personnel and vehicles.
Contractors will be given a Login and password to enable them to use the system, familiarisation training will be available if required
Any construction vehicles which arrive at the project without having been booked in through Data scope may be turn away from the project,



- Mace will employ a gate guard, contractors receiving deliveries are to supply their own traffic marshals to guide the delivery on to & off site. ref to Mace logistics standards for details of requirements training etc.
- **Competent operatives** i.e., Traffic marshal – A73 / NRSWA
- **Campus Liaison:** We will maintain a collaborative approach with the campus and provide regular updates on our delivery traffic/numbers during the various periods of the programme. There may be occasions when we receive special deliveries such as, tower cranes, concrete pump etc. which may need to arrive on site prior to 7.30. should this be required we will give the campus 48hours notice.

- **Delivery schedules (coordination meetings)**
  - Delivery schedules will be produced by the information uploaded on the system logistics manager for use in coordination meetings.
  - Delivery bookings need to be submitted at least 48 hours in advance to allow sufficient time to co-ordinate delivery vehicle movements and the associated use of on-site materials handling equipment. Regular delivery meetings will be held between all parties and the Logistic Manager to make any adjustments and ensure that the delivery schedules are pre-agreed with all. Weekly main look ahead, reviewed in DABs.
  - The system can be read remotely to allow suppliers to view delivery schedules, crane bookings, hoist / goods lift bookings can be made through the system.
  - Daily delivery schedules will be displayed in prominent locations (notice boards, hoists, goods lift, etc.) and distributed to relevant parties (Logistic Manager and his distribution team, contractors, Mace teams, etc.). These schedules will incorporate contractor information and contact details to ensure that the recipient may be contacted promptly when a delivery arrives.
  - During programme phases contractors may provide an all-terrain forklift, personnel to bank and unload pre-booked palletised materials from delivery vehicles and distribute the palletised materials to the agreed lay down areas within the building. Sub-contractors are required to supervise the unloading and material movement operations.

8. Material distribution / storage

- **Vertical distribution Inc. hoists**

Ref to craneage & Hoist section 11 below, any further requirements is to be reviewed by the contractors MS

- **Laydown areas**

Allocated hardstanding storage areas will be agreed with each contractor, some with in the building areas which remain shell & core. Area are too be demarked by the contractors & will require relocating as works progress without the need for instruction. Only one week's supply of materials should be stored at any given time.

- **Housekeeping**

All contractors are to insure they have the required level of labour on site Ref to section 10 below for details

- **Banksmen**

All vehicle movements are to be supervised on site as Mace standards ref to standards doc & starter pack issued with tender inquiries.

- **Unloading**

The first MS & RAs to be issued by all contractors is to be delivery movement & storage.

9. Interfaces

The interfaces will be managed as follows

- Client's systems / procedures – Campus control procedures will be communicated to all contractors
- Emergency services – In the event of an emergency, the er=emergency services will be notified along with the campus security.
- Stakeholders – the Campus security and visitors and other contractors will be notified of activities.
- Neighbours – Mace will liaise where necessary
- Project restrictions – site working hours are 07:30 to 18:00 Monday through to Friday and 7.30 – 13.00 Saturday.
- Adjoining projects – none to report at this stage.

10. Waste management

- **Contractor's responsibilities**

Large waste items to include but not limited to concrete, block work waste, cable drums, pallets, cladding, over ordered materials.

Some packages will include contractor's skips for removal of their own waste. Please insure you are aware of this requirement, the remaining packages will use the bins, skips as provided by the project

All Contractors will be responsible for the removal of all pallets, packing crates & timber bites used for deliveries in a timely manner. Failure to do so will result in Mace instructing their removal through the logistic company & costs recovered through the package accounts.

Minimisation and the proper control of waste generated from the project is vital in maintaining safety and efficiency, traffic reduction, reducing cost and is a key deliverable in achieving sustainability compliance for the project.

The project delivery strategy sets out how we will minimise waste by design.

Once on site the project logistic team will manage the correct handling and monitoring of waste streams.

Our strategy is outlined below. Waste removal and segregation

The waste management policy is designed for both environmental and commercial reasons to segregate all waste where practical and possible. All special waste must be identified by each subcontractor prior to use on site and removed from site by the contractor responsible.

The following is the procedure for waste to be removed by Mace logistics team following the completion of the sub & super structure

- All sub-contractors must ensure that their waste is placed in the correct bins.

- Mace Logistics will supply enough wheeled bins at each level, where required, within the buildings. These bins will be stored in agreed locations.
- Sub-contractors will collect them for use before returning the filled bins to a designated collection point and disposal by the waste management team.
- It is the responsibility of the sub-contractors to cut up and place all waste in the wheelie bins making sure they are returned to the designated areas with the lids closed.
- When filled, these bins will be moved to the ground by the Mace Logistics waste operatives pending removal from site by a wheeled compactor or skips whichever is applicable.
- It is the responsibility of the logistic team to regularly monitor bins and replenish as necessary.
- Wastewater disposal will also remain the responsibility of each subcontractor as this will require license to discharge and is driven by specific construction methodologies.

Mace is committed to reducing the volume of waste produced through the application of the waste hierarchy in all its activities. It is Mace policy that prior to the start of procuring any package each project must comply with the company prefabrication strategy.

All Suppliers with responsibility for their own waste streams must provide the following documents: -

- Resource Management Plan
- Non-Hazardous or Hazardous Waste Carriers Licence issued by the Environment Agency for all companies removing waste
- Environmental Permits (Waste Management Licence) for all facilities where all the hazardous and non-hazardous waste streams are transported to

Transfer notes for controlled waste and consignment notes for hazardous waste must comply with regulatory requirements. Sufficient information must be provided to ensure that the waste disposal operator is aware of the potential hazards of the substance.

All Suppliers responsible for removal of their own wastes must report waste quantities (as tonnage) for each waste stream. Supporting Waste Transfer Notes must be made available to the Mace immediately on request.

Waste storage must comply with both pollution prevention legislation (PPG6) and waste permitting legislation. Should the site require any permitting for items such as wastewater, crush material etc. they must contact their Sustainability Manger in advance to ensure full compliance.

- **Types of bins to be used –** 40ltr bins will be provided at a central location following the installation of the hoist.
- **Skips –** Skips of varying sizes will be supplied at a central location
- **Compactors –** Provided by logistics contractor
- **Hazardous waste / sharps –** Separate bins will be provided
- **Waste areas- segregation/ holding areas –** Central location TBC
- **Waste collection time –** as required by demand by Mace
- **Waste routes –** Bins to be collected from floors by Mace.

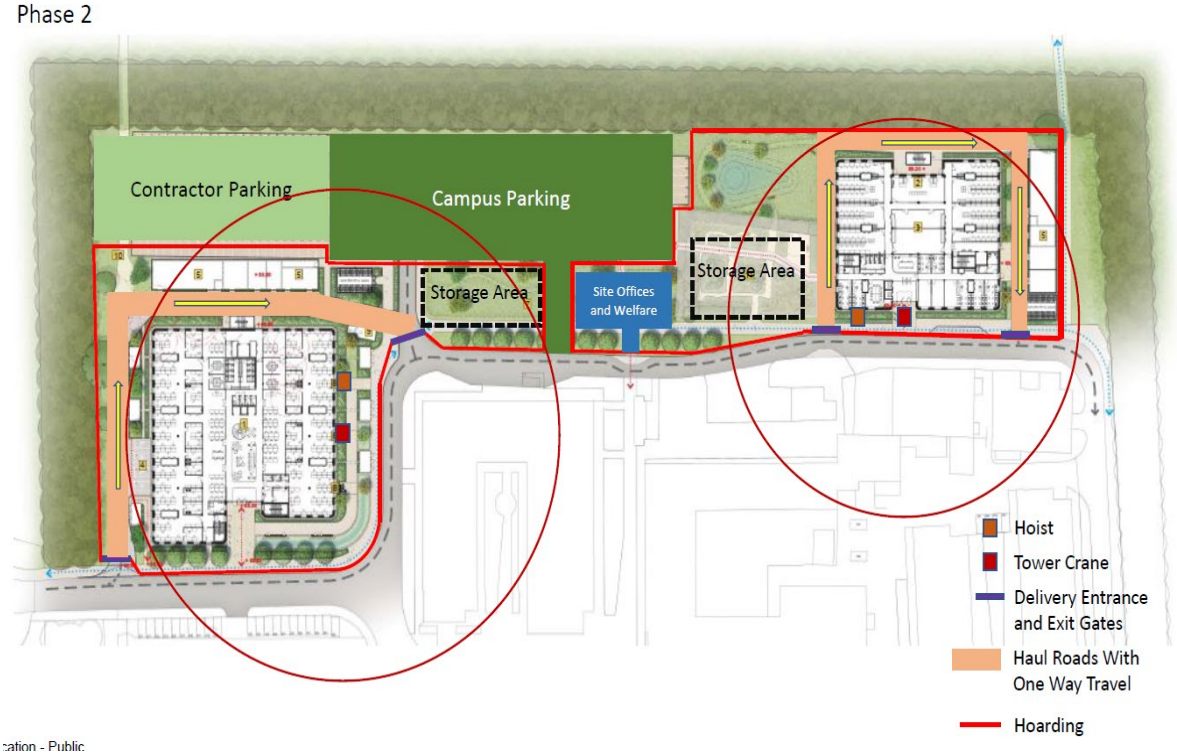
- **Wastewater / rainwater / boot wash / wheel wash –** As per subcontractors Method Statement, guidance below
- **Concrete washing out / skips / vehicles / screed pumps –** As per subcontractors Method Statement, guidance below

11. Craneage / hoist.

- **Tower cranes**

Vertical distribution of materials we be through the use of a tower crane for each building with full coverage of the footprints, as illustrated below. Loads will either be taken directly from delivery vehicles on the haul road or from the designated storage areas within the site. Our crane strategy is driven by mitigating any issues associated with oversailing.

Tower cranes primary use will be for building / erection & installation of the structure. Unloading & material movement will need to be coordinated around these works or a secondary means provided.



It is to be noted the crane operators will cease operation during their required breaks. The operation times are limited to 10 hours 7.30am to 5.30 pm any extra hours need to be requested & agreed.

Hoists – there will be one hoist on each building, location shown on above logistic plan.

Hoist Training will be required for all operatives & trades wishing to use it, The Sub Contractor is to include for 1 number training session per hoist to nominated individuals (from Mace and the Logistics Sub Contractor). Training up to 4 number operatives on each visit.

12. Site communications

- **Type of radio, Licence requirements & Issuing Protocol**

Radios will be used by all the security guards. This will allow them to communicate between themselves whilst on site. Contractors will use radios as required. Crane use will require radios as well on its own channel. All radios will require the correct licence.

- **Internet /Broadband**

To be arranged & supplied by contractor if required. No WIFI systems are allowed to be used on campus.

- **Emergency procedures**

The procedure in the event of an emergency will be detailed within the Fire & Emergency Plan MG-H&S-FM-2652, this plan will be updated periodically issued to all trade contractors on site through Aconex. The emergency plan will also be issued to the local Fire Brigade, this will make them aware of our emergency procedure and familiarise themselves with our site logistics plan.

- **Mobile phone “safe zones”**

Mobile phone “safe zones” will be created, when possible, to allow operatives to use mobile phones without being endangered by plant and equipment

13. Temporary services

Details for Temporary Services for Begbroke site will developed and will be found in the separate temporary services plan.

- Water Services
- Electrical Services
- Gas Services (if applicable)
- Drinking water
- Internet / broadband
- Utilities
- PAT testing
- Fire system
- Legionella management if applicable i.e., showers

14. Protection

To defined with the subcontractor's relevant method statements. This will include, but limited to, the following list below.

- Temporary protection (non-Flammable)
- Access routes
- Weather, Winterisation /Hot Weather Working/ Site shutdowns
- General damage

15. Progressive cleaning

External Roads: Mace intend to install hardstanding for both the haul road and storage area to both buildings, this will help keep vehicles clean when leaving site. When and where necessary, Mace implement the use of a jet wash so vehicles can be cleaned prior to leaving site. Road Sweepers will eb utilised when required.

Project cleaning regime – Housekeeping, Offices, Canteen, Welfare and Smoking areas

Project logistics will be cleaned daily. Trade contractors to respect the facilities and ensure they clean up after themselves.

There will be zero tolerance towards poor housekeeping, all trade contractors are responsible for removing their own waste to bins provided or from site as set out in their packages. Special consideration must be taken when storing materials – no materials or waste must be stored in a manner which impedes an emergency exit route e.g., stair cores.

16. Plant

- **Pallet trucks**

Pallet trucks (manual and electric) may be utilised by contractors to move materials from the haul road to the goods lift / good hoist & across the floor plates. The contractor is responsible for operative training, maintenance, and providing any test certificates to Mace monthly.

- **Road sweepers**

A mechanical road sweeper will be called in as required, by contractors to keep both the haul road and surrounding campus / public roads clean.

- **'A' frame trolley**

'A' frame trolleys – maybe utilised by contractors to move materials from the haul road to the goods lift / good hoist. The contractor is responsible for operative training, maintenance, and providing any test certificates to Mace monthly.

- **FLT**

A forklift truck will not be provided by Mace, they may be utilised by contractors to move materials from the haul road to the goods lift / good hoist. The contractor is responsible for operative training, maintenance, and providing any test certificates to Mace monthly full lifting plans as Mace standards will be required.

17. Security arrangements

Security will be maintained by a security guard at the entrance to the welfare building. They will be present during the normal working hours with CCTV cameras located at strategic points along the hoarding and access positions. These will be always in operation and connected to a 24-hour monitoring system. Emergency procedures will be agreed and coordinated with campus before commencing works.

We propose to locate the site office and welfare between the two new buildings, providing the only means of access for operatives to register onsite. They will be controlled through security turnstiles and a Datascope ID system.

Site inductions

Induction requirements are to be advised the day before. Inductions take place every weekday morning at 0830 hours in the induction room and are delivered by a Mace Manager on a rota system. Operatives MUST be inducted by their employer & RAMs briefings carried out prior to attending the Mace induction. Operatives attending the induction require a copy of their CSCS card, method statement briefing register and a completed security pass application form.

18. Hoardings

The hoarding will consist of a 2.4m anchor bloc environmentally friendly hoarding system with an additional 0.6m of galvanised grid, this is flexible system that can be easily altered.

19. Welfare and First Aid Arrangements

19.1. General

Mace will provide adequate welfare for the number of personnel on the project.

- They will be located as shown on the below plan.
- The facilities will include the following:
- Canteen
- Toilets
- Changing rooms (drying room)
- Designated first aid room
- Multi faith room
- Smoking and e-smoking area

A cleaning regime will be put in place the maintain the facility.

20. Office Accommodation

Office accommodation will be made available to all Mace staff and subcontractor office staff.

21. Project Risk Register

Project traffic management and logistics risk register

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
1.0	**Key considerations**				**Project specific**	
1.1	**Incident management**	Unplanned event occurring without Mace knowledge	H	Develop project emergency procedures /plans to include: • Fire • Security -Unauthorised entry • RTA's-spillages • Inclement weather • Accident and Incidents • Bomb threats • Theft	M	Relevent / specific project plans i.e CPP, Fire Plan etc.
1.2	**Existing locations**	Existing locations impacting on project delivery	H	• Liaison with local authority • Monitor external traffic movements • Review signage strategy and effectiveness of signage • Access – egress routes controlled at all times –public interface	M	
1.3	**Training / Competence**	Use of non-competent logistics / traffic management personnel	H	• All traffic marshals to be competent • Traffic marshals to be briefed on task specific RAMS, CLOCS requirements • Emergency procedures- trained in spill kit procedures	M	Refer to the Logistics Standard for competency requirements

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
2.0	**Vehicle Management (Internal)**				**Project specific**	
2.1	**Vehicle segregation**	Moving vehicles mixing with site operatives	H	• Adequate signage-giving clear information to all contractors • vehicle drivers information to include vehicle and pedestrian routes via DMS • Access and Egress controlled at all times-public interface • Monitor traffic movements and effectiveness of signage	M	
2.2	**One-way systems**	Misuse, bad management of traffic routes	H	• Clearly defined and signed routes, pre-planned routes to stop reversing • Use traffic light systems • Speed limits • Vehicles escorted at all times by contractor traffic marshal	M	Vehicle's route identified on the logistics plan. Construction traffic speed limits will be implemented on site 5 mph.
2.3	**Unloading areas**	Falling materials, vehicles striking contractors, speeding vehicles, weather conditions	H	• Drivers to adhere to speed limits • Exclusion zones clearly defined • Use of MHE • SSOW developed-lifting plans	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
3.0	**Vulnerable road user management (External)**				**Project specific**	
3.1	**Pedestrian segregation**	Pedestrians mixing with moving vehicles	H	• Warning signage, for pedestrians and delivery vehicles • Exclusion zones-Marshalled • All access/egress areas Marshalled at all times- adequate lighting in all areas	M	CLOCS requirements
3.2	**Vulnerable road users**	Vulnerable road users sustaining injury	H	• Emergency information available for all site staff-local hospital, ambulance, police numbers • Regular checks of policies /procedures	L	
3.3	**Non-use of designated vehicle routes**	RTA's, Traffic Jams,	H	• All deliveries to use DMS • Subcontractors to confirm routes to all delivery drivers including overseas drivers	L	
3.4	**WRRR compliance**	Vehicles being non-compliant with WRRR standard	H	• Information/requirements ref WRRR/CLOCS included in contracts, start-up meetings • Contractors to submit evidence that they are compliant	M	WRRR Standard

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
4.0	**Delivery management**				**Project specific**	
4.1	**Unplanned deliveries**	Unscheduled deliveries preventing compliance with delivery schedule	H	• Logistics team to inform Construction team who will make final decision	L	Delivery management system (DMS) Mace logistic manager to coordinate booking in system.
4.2	**Overseas vehicles**	Non-compliance with WRRR standards	H	• Site rules ref WRRR to be instigated by project team to be included in contracts	L	Vehicles not compliant will not be granted access to site.
4.3	**Delivery restrictions**	Deliveries cannot be undertaken Mixing deliveries with vulnerable road users Oversized loads	H	• Delivery timings to complied with • Good communications with all stake holders ensuring correct information on DMS ref size of vehicle, correct equipment to unload etc. • Good management of access/egress minimal disruption for all 3rd parties	M	Risk assessment required all oversized loads and mixing deliveries with vulnerable road users

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
5.0	**Material distribution / Storage**				**Project specific**	
5.1	**Material Storage**	Material stored with the potential to cause harm		• Designated lay down areas for all subcontractors, • Clearly defined with signage and barriers • Minimise build-up of excess materials by good planning	M	Project lifting strategy
5.2	**Vehicle movements**	Vehicles unable to unload		• Practical Planning using DMS • Equipment availability- for vertical and horizontal unloading	M	
5.3	**Unloading**	Unloading activity causing harm / damage		• Use of correct MHE for all unloading • Information for all deliveries on lifting plans • Exclusion zones/warning Signage	M	Method statements & lift plan reviewed by Mace and approved prior to works be undertaken.

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
6.0	**Interfaces**				**Project specific**	
6.1	**3rd parties**	3rd party activities impacted by logistics activities	H	• Revise traffic management plan as job progresses • Review signage at regular intervals –for effectiveness • Review vehicle and pedestrian routes as job progresses • Liaise with local authority and all stakeholders ref site wide developments • Regular checks of Cycle safety routes	M	Mace will liaise with campus on a regular basis.
6.2	**Neighbours**	Project neighbours contacting enforcing authority	H	• Review current complaints procedure • Regular meetings with local tenants association reviewing changes to access roads, parking facilities etc. • Comply with local authority noise, dust, and nuisance requirements	L	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
7.0	**Waste management**				**Project specific**	
7.1	**Waste movement**	Accumulation of waste on project	H	• Regular disposal of waste-skip, compactors • Bins, skips for provided for general waste • Bins located at prioritised areas-safe access and egress • Housekeeping completed after every task • Segregation of waste materials	M	
7.2	**Hazardous waste**	Hazardous waste causing harm	H	• Hazardous waste bins/containers provide and disposed of in line with site procedures • COSHH assessments developed	M	
7.3	**Manual handling**	Incorrect manual handling causing damage / injury	H	• Bins not to be overloaded-materials protruding • All waste containers to be inspected for damage at regular intervals • Access and Egress routes clear-	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
8.0	**Craneage / Hoist's**				**Project specific**	
8.1	**Lifting operations**	Unplanned lifting activities resulting in damage / harm	H	• All lifting operations to be planned- SSOW/ Lifting plans • All operatives involved in lifting operations -competent	M	Strategic lift plan
8.2	**Weather**	Inclement weather impacting lifting activities	H	• Regular weather checks for local areas • Flexibility in lifting programme /delivery schedule	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
9.0	**Site communications**				**Project specific**	
9.1	**Emergency procedures**	Lack of understanding of emergency procedures	H	• All operatives to carry out site induction training- refresher training • Emergency Information displayed on site notice boards –reviewed and updated regularly • Emergency procedures to be reviewed at regular intervals and communicated to all operatives	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
10.0	**Temporary services**				**Project specific**	
10.1	**Emergency lighting**	Insufficient emergency lighting	H	• Risk based assessment required for all escape routes	M	
10.2	**Lighting levels**	Insufficient lighting resulting in harm	H	• Lighting levels to be checked at regular intervals / time of year	M	
10.3	**Fire alarm maintenance**	Unplanned activation of fire alarm	H	• Weekly/daily inspections of fire points Records kept • Servicing and maintenance agreement required in accordance with equipment instructions	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
11.0	**Protection**				**Project specific**	
11.1	**Weather**	Damage to project	H	• Materials stored and secured safely • Winterisation process developed • Hoarding weekly checks completed	L	
11.2	**General damage**	Damage to finished / installed items	H	• Agreed protection methods in place • Process in place for hand overs of equipment and work areas • Permit to work in controlled areas	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
12.0	**Progressive cleaning**				**Project specific**	
12.1	**Cleaning activity**	Slips, trips & falls Fire loading	H	• Housekeeping regime in place • Warning signage prominently displayed where cleaning is taking place • All spillages cleaned up immediately • Access and Egress –designated walkways free from obstructions.	M	
12.2	**Existing locations**	Accumulation of waste	H	• Strict waste disposal procedures in place • Segregation policy • Regular housekeeping carried out by all contractors	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
13.0	**Plant operation**				**Project specific**	
13.1	**Lifting equipment**	Failure of lifting equipment Unauthorised operation of lifting equipment	H	• SWL to be confirmed before lifting takes place • Only certificated/ competent persons to be used all lifting operations • Thorough examination and Inspection certificates available	M	
13.2	**Lifting accessories**	Failure of lifting accessories	H	• Associated lifting equipment's inspected as required by LOLER and makers instructions • Thorough examination and Inspection certificates available • Crane Check list completed before any lift takes place • Test lifts carried out • Only certificated/ competent persons to be used all lifting operations	M	
13.3	**Contractor coordination**	Conflicting lifting activities	H	• Daily co-ordination meeting to confirm lifting schedules • Planning in line with construction programme • Lifting plans to be approved	M	

Nr	Activity	Key Project-Specific Hazards	Risk rating	Key Project Specific Control Measures	Residual Risk	Additional comments / information
14.0	**Security arrangements**				**Project specific**	
14.1	**Trespassers**	Death / serious injury to trespasser	H	• 24 /7 security presence- trained in site specific emergency procedures • Warning signage prominently displayed • Security assessment reviewed as job progresses • External hoarding/barriers/gates and lighting inspection at regular intervals	M	
14.2	**Visitors**	Unauthorised visitors on site	H	• 24 /7 security presence - trained in site specific emergency procedures • Security assessment reviewed as job progresses • Warning signage prominently displayed • External hoarding/barriers/gates and lighting inspection at regular interval	M	
14.3	**Out of hours**	Unauthorised access to project	H	• 24 /7 security presence - trained in site specific emergency procedures • Warning signage prominently displayed • Security assessment reviewed as job progresses • External hoarding/barriers/gates and lighting inspection at regular intervals	M	