Interim

Construction Logistics Strategy
1. Executive Summary

University College London (UCL) intends to appoint a specialist Construction Logistics Partner from July 2014. The primary focus of activity will be in the central campus area (known as the Bloomsbury Campus) – where the majority of capital investment and EM& I projects will be delivered – though many principals and arrangements will extend to more remote (satellite) properties in other parts of central London with emphasis on delivering a consistent standard. All projects within an agreed geographic area covering the central campus have been taken into account for this Logistics Strategy, these include:

1. Capital Projects
2. EM&I Projects
3. Minor Works

Multiple projects being undertaken in the central campus create significant additional risk to business as usual activities for the University, for example:

- The safety of students, staff and the general public - in or around the University estate.
- (If uncontrolled) the likelihood of disruption to ‘business as usual’ – teaching, research, public events and other University activities.
- Confusion caused by changes to pedestrian and vehicle access and circulation routes into and around the campus.

A single Logistics provider will be key in reducing safety concerns and managing any conflicts within the space outside of individual construction site boundaries which would become overwhelmed with individual project movements and activity if left without central control.

UCL also recognises the potential cost saving that can be achieved from centralising the control of certain activities, such as waste through one provider. The proposed use of consolidation for plant & material deliveries will benefit the University by using more efficient and sustainable methods of transport operations.

The need to control Construction Logistics becomes apparent on entering the campus with current business as usual activities displaying frenetic activity even before delivery of a major capital projects programme commences and in particular the pre-existing interface where vehicles and pedestrians are concerned. Safe and efficient Construction Logistics in collaboration with business as usual will deliver a safe and efficient solution. The UCL Estates Strategy Team acknowledge that Construction Logistics is essentially a complex and skilled discipline working side-by-side to the Business as Usual and that specialist knowledge is required to facilitate success.

**Delivery Strategy** – A material and equipment delivery strategy is proposed to be facilitated which includes an offsite consolidation service supplied and managed by the Logistics provider. Where full loads of materials are required by a project, a direct to site service will also operate and where materials are not suitable for consolidation [e.g. structural steel, ready mix concrete] these will also arrive direct at the site. A dedicated bespoke Delivery Management System will be implemented by the Logistics
provider, which will control and regulate the flow of vehicles to campus, with the potential (later) to role this out to include the wider remit of Business as usual.

**Waste** - Management of waste will be collaboration between the logistics provider and UCL FM services. The process would be separate for construction activities and follow specific procedures between Principle Contractor and Logistics Provider detailed in an Operational document created by the Logistics Provider. This will allow each project to have ample waste receptacle provision and the general construction waste to be handled safely with no interference with Business as usual transfers. Accurate figures for project waste recording and sustainability will also be achieved using this process.

**Vehicle and pedestrian access and segregation** - Control of the interface areas with construction related activities are paramount in reducing the risk of accidents. The Logistics provider’s scope of works will incorporate responsibility for providing plans to the Estate department displaying how segregation is to be managed.

**Welfare** - UCL intends to provide centrally located site welfare and facilities for trades (blue collar) and office space for trades management (white collar). Options in and around the central campus area are being developed in the Gordon Street area.
2. Glossary

- **UCL** – University College London
- **LM** – Logistics Manager (UCL)
- **LP** – Logistics Provider (Contractor)
- **LOZ** – Logistics Operational Zone
- **COSHH** – Control of Substances Hazardous to Health
- **REL** – Rear End Loader (Type of Waste Disposal Vehicle)
- **OOG** – Out of Gauge
- **FOD** – Foreign Object Debris (uncontrolled loose waste)
- **DMS** – Delivery Management System
- **BAU** – Business As Usual
- **AIL** – Abnormal Indivisible Load
- **EM&I** – Electrical Mechanical and Infrastructure
- **PSO** – Portfolio Services Office
- **PO** – Project Officer
3. Purpose of document

The purpose of this document is to articulate the Logistics Strategy that University College London will adopt for its construction projects and provide high-level background information for prospective Construction Logistics Partners. It identifies collaborative and mandated services that the Logistics provider will implement processes for. It is recommended that once awarded the Logistics Provider produces an Operational Document that can be cascaded to UCL, Principle Contractors and Sub Contractors during their tender processes. In addition a Logistics overview provided by the LP will form part of the pre-start arrangements meetings directed by UCL Project Officers. This briefing will be compulsory for each project start up regardless of a contractors being awarded more than one project so that updates in processes and any site specific constraints or opportunities can be covered.

In order for the UCL to complete multiple projects safely and in a controlled manner it has undertaken to appoint a single Construction Logistics provider in order implement standard processes outside of the principle contractor’s site boundaries creating a safe and efficient environment for the university to continue day to day operations whilst refurbishing and developing the central campus.

This strategy document refers to the central campus projects template only (Annex A) however the projects falling outside of this area will be reviewed and potentially subject to the same conditions. The Logistics provider must assist in facilitating these additional requirements if UCL approves expansion of the geographic zone beyond the central campus area.

UCL maintains a Project Portfolio containing information about all anticipated programme activity. The Logistics provider must be capable of using this information to forecast and update histograms for Welfare, Deliveries and Waste on a project-by-project basis.

The University will be fully operational during the construction phases and the Logistics provider is fully responsible for providing a service within the “white space” outside of the Principal Contractor’s site boundaries – this will be to deliver or manage the following mandated services for each project:

1. Material Deliveries
2. Waste Disposal
3. Welfare Services
4. Access and Safe Routes
5. External Site Hoarding segregating work zones and (where appropriate) ground floor external walkways/means of escape

This document details the requirement of each of these services and each contractor will be informed of the mandatory standard to be adhered too.
4. Material Deliveries

UCL are mandating that all construction material deliveries to be scheduled through the Logistics provider. This process will incorporate a preference for materials Consolidation linked to a Delivery Management System. There will be locations agreed by UCL where deliveries can be unloaded and materials transferred horizontally to a lay down area just inside the Principle Contractors site demise. The unloading area will have the potential of “stacking” a number of vehicles and allow them to be re-routed and re-presented or to refuse vehicles access if non-compliant.

The current recommendation (subject to local authority consent) is to provide a facility within the area of Gordon Street which is intended to be subject to a temporary closure under a traffic management order. The pavements will still remain open to the pedestrian traffic and the LP is responsible for providing segregation and traffic management (including unfettered access by emergency vehicles).

Using UCL Project portfolio information the LP must provide a predicted delivery schedule on a monthly basis to the UCL LM identifying any requirement to increase /decrease consolidation activity or space.

The Logistics company must be able provide a consolidation centre with a minimum capacity of 20,000 sq ft within an approximate radius of 10 miles or approximately 30 minutes (or less) normal travelling time of the central campus. A Delivery Management System (DMS) will co ordinate the materials into the central campus area of UCL. The DMS will allow for 6 types of material activity:

1. Delivery of material for consolidation
2. Delivery of Material to site using consolidation
3. Direct deliveries to site including All’s
4. Returns from site to consolidation Centre
5. Removal from site by contractor/ supplier
6. Waste vehicles

Abnormal Indivisible Loads (All’s)

AIL’s include loads that fall outside of standard LGV/ HGV load carrying capabilities and will also include Specialist equipment such as cranes/ piling rigs etc.

AIL’s will be subject to local authority clearance but still use the DMS to inform the projects of their timings and location of offload/ works.
5. Construction Waste

Utilising UCL Project Portfolio information the LP will provide the UCL LM with predicted Waste output from each project and update this monthly. The UCL incumbent waste provider contracted through UCL Facilities will be mandated as the waste contractor for all projects. The LP will be responsible for all waste contractors vehicle movements (e.g. skip exchanges) for construction activities.

Where demolition activities take place each main contractor must provide their own disposal methods for waste produced. The use of DMS is still mandated for all construction vehicles and where they interfere directly the LP will provide safe access to the agreed loading area. Demolition projects will not be able to utilise the existing construction waste processes unless they can provide evidence to the LP that the waste arising will be suitable for the process.

The method of operation for construction waste will be independent of the UCL operation and will not interfere with any existing UCL waste transfer methods. The LP is expected to provide close liaison with UCL soft services to ensure that any potential conflicts are resolved and BAU is not impaired.

The recommended process for waste is for the LP to provide each project with receptacles to place waste into. These receptacles will be UCL Project Assets and will mainly be wheeled bins but where large items are to be disposed of, pallets or stillages may be provided. Segregation will be implemented where space permits but is likely to be limited to Gypsum products, Coshh Products and General Construction Waste. Each project will be able to “Call Off” waste from their site using an electronic form sent to the LP. The Call Off will inform the LP of the project number, the quantity and type of construction waste arising. It will identify when they want it collected and request an exchange of bins if required, effectively maintaining a level of bins on-site under project control.

Once the waste has been collected it will be subject to 2 methods of disposal:

1. General Construction Waste acceptable to Rear End Loading Vehicle (REL)
2. Coshh, Gypsum, Out of Gauge (OOG) General Construction Waste

Once a project has submitted a Waste Call Off then the LP will be subject to a contract deliverable ensuring that the waste is collected within agreed times. The Project must ensure that bins for collection are placed just inside the site demise or an agreed safe area and will not be left in the public domain. The LP will collect these bins and transfer them to an approved stacking area commonly known as a corral. The location of these areas will be subject to change and must be identified by the LP and approved by UCL Estates. They will be strategically positioned to minimise handling and allow for quick transfer to an REL. The corrals will also store empty bins ready to be returned to project areas. There will also be a bin holding area within the Logistics Operating Zone (LOZ) currently planned to be situated in Gordon Street. Here the LP can store further bins for project use.

The LP will be responsible for administering the booking of the REL and ensure compliance by meeting the vehicle and ensuring that only the suitable construction waste is transferred and signing the transfer note. Construction waste that does not meet the operating requirements of the REL will be classified as OOG.
Where the waste items are classified as Coshh, Gypsum or OOG then the LP shall transfer this waste to the LOZ. This location will accommodate a waste disposal station and the LP shall be responsible for storing, filling and exchanging skips using the incumbent UCL waste provider. The LP will ensure that these skips will be lidded or have nets fitted when not being loaded to prevent the escape of FOD.

The waste contractor is to use the DMS as with all other vehicles entering the LOZ.

The LP must consider the safe routing for Waste movements around site, collaborative storage of waste with UCL and provide a safe means of loading skips at the LOZ.

The LP will also be responsible for ensuring the Waste Contractor provides recycling figures for all construction waste leaving site and report on recycled and landfill percentages every month.

Welfare waste will be subject to the same conditions for disposal and UCL Soft Services Team will be responsible for the transfer of this waste to the correct waste stream. Booking of welfare waste vehicles into the LOZ will still be subject to using the DMS.
6. Welfare Strategy

UCL has embarked on multiple projects operating throughout its established facilities. The Central Campus is an area of intense project programming and to facilitate the numbers of contractors and their workforces the UCL will provide a central Welfare serving the main campus projects. Projects falling outside of this area will also be considered for centralised facilities and this will be clarified during the tender process.

The central campus welfare facility and area for which it serves is identified at (annex B). The welfare will effectively reduce the numbers of independent contractor stand-alone facilities that would be normally located unsystematically in the main campus area and reduce the use of student facilities and rest areas by construction workers. The centralised supply of tailor made provisions for project office staff and workers will provide a natural attraction for workers to utilise.

The current recommendation for locating the main welfare facility is above the Christopher Ingold Theatre constructed on a gantry structure. This temporary building will be in use for over 5 years and UCL will contract direct with the provider. The facility will potentially have 5 floors each comprising of around 24 modular units. The layout of each floor is likely to be proposed as follows (subject to design review):

1. Reception, Canteen, Occupational health and large meeting room (Induction)
2. Welfare changing area – main workers toilets and showers
3. Sub Contractor Office accommodation and break out meeting rooms
4. UCL Project Team, Principle Contractors, Logistics Provider – Large/ small Meeting Rooms
5. The fifth level is a proposal for a large glazed room where group meetings such as Safety Leadership Meetings can take place. There is also an option to use this as additional training resource for the University. This floor could be serviced by an independent separate lift from street level.

The facility is proposed have a bespoke lockerless welfare area for workers to deposit their personal belongings. This will negate the need for locker provision, administering allocation, providing security and the inevitable hygiene issues from items left long after workers have departed. A cloakroom style storage area will be controlled be the LP team and workers will hand in their belongings which will be looked after during their time on site and returned on completing their shift. This will leave a large open space broken up with low level seating for workers to change and manage their belongings. It is envisaged that this area will also be capable of holding group meetings for workers.
UCL will provide mandated soft services to the welfare, these will include:

1. Catering
2. Cleaning including canteen area
3. Waste Disposal (Office & Catering)
4. Wireless and Printer facilities including Plotters
5. Facility Repair and Maintenance

UCL soft services must comply with the Logistics Operational plan for all deliveries and waste services relating to construction welfare.

Each option requires detailed design and procurement and to allow the Logistics Operation to move forward at an earlier stage there is a requirement for an interim solution. This will be located at the Beech site off Gordon Street.
6. Access Strategy

A successful access strategy ensures that the construction activities can continue to progress safely within the BAU environment. The implementation of a single logistics provider will provide a standard across the central campus where space in between the projects becomes the responsibility of the LP to establish safe methods of access for construction.

It will be the first consideration of the LP to seek approval from UCL Projects and Estates prior to implementing any barrier systems into the central campus area. UCL seek to identify a standard for barriers and hoardings and the LP will provide examples for consideration during the tender process.

UCL will mandate the introduction of a Logistics Operational document at all Project Pre start meetings. In addition to this, a mandatory site wide induction prior to any worker starting on site must be attended by all construction workers. Each worker will be issued with a UCL pass identifying him to others as construction related activity and providing evidence of the induction. Policing of inducted individuals is the responsibility of all project teams but the LP will specifically be monitoring those entering the welfare and using access routes. There will be a fixed rule of no pass no work. UCL may consider in contracts charging contractors for lost or non returned passes.

The LP will work with UCL to provide project pre start information on construction logistics. The LP will take full responsibility for the movement of materials and waste outside of the project demise and assist in providing approved areas for locating equipment for project use that may have to be located outside of the project area (such as cranes).

The use of hoarding and barriers will be used to segregate vehicles and plant from pedestrians and where this cannot be implemented, banksman will be utilised to provide maximum safety whilst activities continue.

The LP will standardise Barrier systems in conjunction with UCL requirements. UCL will confirm the barrier specification during the LP tender process. These barriers will be deployed by the LP where safe routing is required to segregate construction and Public activities.
7. Hoarding

The multiple project sites at UCL will benefit from standard external hoardings installed by the Logistics team during project start up and de mobilised during the close down and handover of a project. This will allow UCL to have a standard site hoarding suitable for public realm artwork / wayfinding/information and capable of being re cycled many times.

The LP must be able to prepare, repair and recycle the hoarding panels off site and install them in accordance with the site plan issued by the project officer during the site set up phase. This means that sites can be set up in advance if suitable for pre construction activity such as EM&I works and left up post handover if subject to further UCL works ongoing.

The flexibility of owning and maintaining these hoardings also offers a valuable opportunity for UCL to utilise the panel space for Branding or Art Work. The LP must be able to provide a capability to design hoarding to facilitate fixtures where appropriate.

There is a real opportunity to re cycle timber being disposed of to manufacture or repair hoarding panels. The LP must be able to demonstrate how much re cycling has been achieved.

Summary

UCL is seeking a Logistics partner who will support the safe and efficient delivery of their project portfolio. This will clearly not just cover the construction activities and the partner must be capable of embedding themselves into the day to day business of UCL and fully understand the interfaces that will challenge success.

It will be critical to identify an experienced supplier as early as possible who is prepared to develop procedures that can be carried forward to assist business as usual and has long term aspirations in both construction and UCL requirements.